

## Real Effects of the Proposed SEC Climate Disclosure Rule

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We thank Tim Gray and workshop participants at University of Calgary, INSEAD, and The Wharton School for helpful comments. We gratefully acknowledge the financial support of the Carroll School of Management at Boston College.

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#### Abstract

We investigate the real effects of the SEC's proposed climate disclosure rule. We hypothesize that the threat of requiring Scope 3 emissions disclosure increases affected firms' preference for greater control over production and GHG emissions, which renders outsourcing to foreign countries less desirable. Using difference-in-differences analyses, we find evidence that treated firms reduce imports following the proposed rule, relative to control firms. The reduction in imports is concentrated in firms for which disclosing Scope 3 emissions may be costlier: with material Scope 3 emissions, not voluntarily disclosing GHG emissions, in industries with fewer supportive comments on mandating disclosure of Scope 3 emissions in the proposal, and in imports from more pollutive countries. The reduction in imports is also concentrated among firms with greater ability to reduce foreign outsourcing: with less reliance on imports of minerals, with higher excess production capacity, and without publicly stated GHG emissions reduction targets. Finally, there is some evidence that, following the SEC's proposed rule, affected firms increase in-house production and improve their environmental efforts. Collectively, our findings suggest that the SEC's proposed climate disclosure rule induces real changes in corporate decisions.

Keywords: Climate disclosure; GHG emissions; supply chain; real effects

JEL Classifications: G28; M41; L14; L23

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**Abstract:** We investigate the real effects of the SEC's proposed climate disclosure rule. We hypothesize that the threat of requiring Scope 3 emissions disclosure increases affected firms' preference for greater control over production and GHG emissions, which renders outsourcing to foreign countries less desirable. Using difference-in-differences analyses, we find evidence that treated firms reduce imports following the proposed rule, relative to control firms. The reduction in imports is concentrated in firms for which disclosing Scope 3 emissions may be costlier: with material Scope 3 emissions, not voluntarily disclosing GHG emissions, in industries with fewer supportive comments on mandating disclosure of Scope 3 emissions in the proposal, and in imports from more pollutive countries. The reduction in imports is also concentrated among firms with greater ability to reduce foreign outsourcing: with less reliance on imports of minerals, with higher excess production capacity, and without publicly stated GHG emissions reduction targets. Finally, there is some evidence that, following the SEC's proposed rule, affected firms increase in-house production and improve their environmental efforts. Collectively, our findings suggest that the SEC's proposed climate disclosure rule induces real changes in corporate decisions.

**Keywords:** climate disclosure; GHG emissions; supply chain; real effects. **JEL classification:** G28; M41; L14; L23 **Data availability:** All data are available from public sources identified in the paper.

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#### 1. Introduction

In March 2022, the SEC proposed its rule on climate change disclosure, including specific requirements around greenhouse gas (GHG) emissions. The rule mandated disclosure of Scope 1 and Scope 2 emissions for all filers (phased in with small reporting companies (SRCs) disclosing two years after large accelerated filers) and disclosure of Scope 3 emissions, if material or if the company provides targets or goals that include Scope 3 emissions, for all but SRC firms. The proposed rule provides an opportunity to examine how an impending widespread mandatory climate disclosure in the U.S. can affect firms' supply chain decisions. On the one hand, the proposal affects the reporting incentives and the costs and benefits of outsourcing for U.S. firms. On the other, given that other countries are ahead of the U.S. in regulating ESG disclosure, some U.S. firms might have already taken actions to manage GHG emissions even before the SEC's proposal.

Concurrent studies examining how mandatory ESG-related disclosure affects firms' supply chain decisions have examined non-U.S. settings (Deng et al. 2023; Lu et al. 2023). Their findings suggest that firms shift domestic activities in their supply chains to foreign suppliers to avoid disclosing negative ESG activities. Before the SEC's proposed rule, U.S. firms aiming to appear as having lower emissions could employ a similar strategy. They could hide their GHG emissions by outsourcing abroad under the assumption that a firm's own emissions, whether in the United States or elsewhere, and outsourced U.S. suppliers are arguably more visible to U.S. stakeholders. However, with the SEC's proposed rule, such a strategy becomes less viable for non-SRCs because they must report all (including non-U.S.) supplier-produced (i.e., Scope 3) emissions. This prompts the question of whether and how these firms adjust their supply chains in response to the SEC's proposed climate disclosure rule.<sup>1</sup>

The proposed disclosure rule changes the cost-benefit trade-off between in-house production and outsourcing for non-SRCs in a few ways. First, emissions from in-house production would be included in Scope 1 emissions, while GHG emissions from outsourced suppliers would be included in Scope 3 emissions. Since firms don't exercise direct control over their suppliers, a more efficient way to lower GHG emissions in the long run would be to make in-house production more sustainable and less pollutive. This might require new processes, which suppliers cannot or will not invest in, thus making outsourcing less favorable than in-house production. Second, if Scope 3 emissions must be disclosed, firms would have to rely on suppliers to measure their emissions, provide data, and, when needed, take actions to reduce reported Scope 3 emissions.<sup>2</sup> Because it is infeasible for supplier contracts to specify all possibilities and actions, the disclosure mandate would introduce additional uncertainty for firms that choose to outsource. Thus they may prefer to switch from outsourcing to in-house production to have greater control over their reporting and management of GHG emissions. Third, the controllability principle in the management accounting literature suggests that managers should be held accountable only for outcomes that are within their control. Thus, if managers are going to be evaluated based on their firms' reported GHG emissions, in-house production, which managers have more direct control over, would be preferrable to foreign outsourcing. We therefore hypothesize that, in response to

<sup>&</sup>lt;sup>1</sup> The idea a firm will relocate its polluting activities to countries with weaker environmental (but not necessarily disclosure) regulations and standards has been explored in economics (see review by Brunnermeier and Levinson 2004) and underscores the need to assess global supply chain decisions. Similarly, the SEC's proposed regulation acknowledges the global economy by requiring disclosure of total emissions across a wide range of supply chain activities. Therefore we focus on whether and how non-SRCs adjust their global supply chain decisions, particularly foreign outsourcing.

<sup>&</sup>lt;sup>2</sup> A headline from *ESG Dive* (2023) reads: "Amazon prioritizing ESG in procurement, but gathering data is 'increasingly painstaking." See <u>https://www.esgdive.com/news/amazon-prioritizing-esg-in-procurement-but-gathering-data-is-difficult/700471/</u> (accessed February 25, 2024).

the proposed disclosure rule, non-SRCs will reduce foreign outsourcing.

But another possibility is that non-SRCs may not change their behavior in response to the proposed disclosure rule. First, instead of terminating foreign supply chain relationship, firms may take other arguably less costly actions, such as coordinating with their suppliers to reduce GHG emissions. Second, increased awareness of ESG issues among stakeholders, mandatory ESG disclosure, and ESG regulations in other countries and at the state level might have motivated some firms to modify their supply chains even before the SEC's proposed rule. Third, some firms may believe that the disclosure of Scope 3 emissions could be abandoned or scaled back by the SEC. Thus these firms might continue outsourcing emissions, which decreases Scope 1 emissions at the expense of Scope 3 emissions (Dai et al. 2024).

Empirically, we implement a difference-in-differences design, comparing the behavior of treated firms (i.e., non-SRCs), which are affected by the SEC's proposed disclosure rule for Scope 3 emissions, before and after the proposed rule, to the behavior of control firms (i.e., the unaffected SRCs). Even though the SEC proposed the final rule in March 2022, the statement issued on March 15, 2021 seeking feedback on climate change disclosure hinted at the inclusion of Scope 3 emissions. Thus we use the statement issuance date as the treatment date. Our sample consists of 18,081 firm-years from 2018–2023 for 3,636 unique nonfinancial firms. To capture firms' outsourcing to foreign suppliers, we employ the U.S. customs import data at the shipment level from S&P Panjiva and construct two measures of annual imports: volume and weight. Consistent with our hypothesis, we find that both decrease after the SEC's proposed rule for treated firms relative to unaffected ones.

To corroborate our interpretation that the proposed disclosure rule creates costs that make outsourcing less desirable, we conduct four cross-sectional tests varying firms' perceived costs from disclosing Scope 3 emissions. We expect the reduction in import activity to be mainly present among firms for which the proposed disclosure rule is particularly costly. First, we exploit a specific requirement in the proposed rule that Scope 3 emissions are to be disclosed only if they are material. We use supply chain GHG emission factors developed by the U.S. Environmental Protection Agency (EPA) (Ingwersen and Li 2020) to identify firms with (i.e., higher emission factor) and without (i.e., lower emission factor) material Scope 3 emissions. Our results are concentrated only among those with material Scope 3 emissions, which helps attribute the reduction in import activity more directly to firms' reluctance to disclose Scope 3 emissions. Second, firms that currently do not report emissions information may be doing so because they have higher emissions than voluntary disclosers and are likely more affected by the proposed disclosure. Therefore we hypothesize that the decrease in import activity of treated firms relative to control firms would be concentrated among firms that chose not to voluntarily disclose emissions information. Following recent studies (Bolton and Kacperczyk 2023; Greenstone et al. 2023; Shi et al. 2023), we partition firms into those that do or do not provide voluntary GHG disclosure based on whether S&P Trucost has to impute the information. Consistent with our expectation, the reduction in imports is concentrated among firms that do not voluntarily report GHG emissions. Third, we use the comments the SEC received on its climate disclosure proposal to proxy for firms' revealed preference for the proposed disclosure rule and find our results are concentrated in industries with fewer supportive comments on the Scope 3 emissions disclosure requirement in the proposal. Last, we expect firms seeking to reduce the levels of Scope 3 emissions to reduce their imports from countries with higher levels of pollution. We split countries into "clean" and "dirty" countries based on the level of pollution measured as PM2.5 concentrations in 2021 and find that the import reductions are concentrated in "dirty" countries.

We conduct additional cross-sectional analyses exploring the heterogeneity in firms' ability to reduce foreign outsourcing as a response to disclosing Scope 3 emissions. We expect the reduction in import activity to be mainly present among firms that have greater flexibility and capacity to shift away from foreign outsourcing. First, firms may not have substitutes for some products they import, such as minerals that are mined overseas, and therefore we would not expect firms heavily relying on importing minerals to reduce their foreign outsourcing. We partition our sample into two subgroups based on the industry level reliance on imports of minerals, and find that the reduction in foreign imports concentrate among firms relying less on imports of minerals. Second, we predict that firms with excess production capacity may find it easier to cut down foreign outsourcing and bring production in house; we find consistent evidence. Third, we predict that firms with publicly stated GHG emissions reduction targets may have already taken actions to reduce emissions in their supply chain, leaving them with limited opportunities to further reduce outsourcing. Consistent with our prediction, we find that reductions in imports concentrate in firms without GHG emissions reduction targets.

We perform several analyses to address concerns that concurrent macroeconomic factors created incentives for firms to "reshore" production.<sup>3</sup> We confirm that our results hold after (i) excluding imports from China (addressing the concern that increased tariffs would lead to lower importing from China) and from the U.K. (addressing the concern that Brexit increased frictions in imports from the U.K.), and (ii) only including imports from Canada and Mexico (addressing the concern that disruption of the transoceanic supply chain due to the COVID-19 pandemic reduce

<sup>&</sup>lt;sup>3</sup> For these factors to entirely explain our findings, they would need to differentially impact non-SRCs and explain the results in all our cross-sectional tests. The cross-sectional splits exploit heterogeneity in firms' responses to Scope 3 emissions disclosure requirement (e.g., opposition to Scope 3 disclosure), and it is not immediately obvious how the same splits can be explained by these other factors.

imports by sea). Another concern is that the pandemic highlighted supply chain weaknesses when firms rely on overseas sources, leading firms to "reshore" in our sample period. To address this concern, we examine imports from U.S. firms' foreign subsidiaries. These imports would be subject to the same supply chain distribution pressures but not the Scope 3 emissions disclosure, as subsidiaries' emissions are included in Scope 1. We find no evidence of reduced imports from subsidiaries, providing additional support that our results cannot be explained by pandemicinduced reshoring.

To corroborate our interpretation that non-SRCs reduce foreign outsourcing, we examine whether they increase their in-house production after the proposed rule, relative to SRCs. If firms reduce their international outsourcing, an option within reshoring is to increase in-house production. Two challenges in measuring in-house production are that for measures that use inventory levels, we cannot differentiate purchased inventory from in-house produced inventory and that inventory levels could be affected by concurrent macroeconomic factors. Therefore, we use an alternative measure – managers' discussions of in-house production during the presentation section of earnings conference calls. An advantage of this measure is that it captures not just existing in-house production, but also any plans for future in-house production. Consistent with our expectation, results indicate that discussion of in-house production increases after the release of the proposed SEC climate disclosure rule for non-SRCs relative to SRCs.

We conduct several analyses to examine how the SEC's proposed disclosure rule motivates real changes to non-SRCs' operations, in particular, environmental efforts that could reduce Scope 1 emissions in the long term. First, for the subsample of firms in the Refinitiv ESG database, we examine firms' environmental efforts and find that treated firms improve their environmental activities more in the post-period, relative to control firms. These improvements include better supply chain management, environmental products, environmental materials sourcing, environmental innovation scores, environmental pillar ratings, and overall ESG ratings. Second, for a subsample of manufacturers required to report toxic releases under the Emergency Planning and Community Right to Know Act,<sup>4</sup> we construct the proxies for pollution based on the data from the U.S. Environmental Protection Agency (EPA) Toxics Release Inventory (TRI) Program (Lyu et al. 2022). We find that treated firms reduce toxic releases, the number of polluting plants, and the number of chemicals emitted in the post-period, compared to control firms.

Our paper makes several contributions. First, we document an important response to the SEC's proposed disclosure rule. A few studies find that disclosure in the form of corporate social responsibility (CSR) ratings (Darendeli et al. 2022) and mandatory reporting related to human rights (She 2022) affect firm supply chain decisions. Other concurrent studies (Deng et al. 2023; Lu et al. 2023) find that environmental-related disclosure regulations create incentives for firms to present themselves as compliant, while, in practice, behaving in ways, such as outsourcing emitting activities, that contradict the underlying spirit of the regulations. We contribute by examining a setting where firms face the possibility of disclosing all Scope 1, 2, and 3 emissions, which makes outsourcing emissions an ineffective strategy, to understand how firms respond in this situation. Second, we contribute to the literature on the real effects of environmental disclosure (Downar et al. 2021; Fiechter et al. 2022; Tomar 2023) by examining how firms respond to a proposed disclosure rule when it is layered atop mandated disclosure from other regulators. Third, our findings potentially have implications for the SEC's proposed climate disclosure rule, which has yet to be finalized. Collectively, our evidence suggests that the threat of Scope 3 emissions disclosure induced real changes in firms' operations, including reductions in production

<sup>&</sup>lt;sup>4</sup> See <u>https://www.epa.gov/epcra</u>.

outsourcing to foreign suppliers and an increase in environmental efforts.

#### 2. Institutional Setting, Related Literature, and Hypothesis Development

#### 2.1 Institutional setting – SEC climate disclosure regulation

On March 21, 2022, the Securities and Exchange Committee (SEC) issued its proposed rule for climate-related disclosure, "The Enhancement and Standardization of Climate-Related Disclosures for Investors" (33-11042). Besides requiring the disclosure of Scope 1 (direct emissions) and Scope 2 emissions (indirect emissions from purchased energy), the rule proposes that companies disclose emissions from upstream and downstream in the supply chain, referred to as Scope 3 emissions, if they are material or if companies disclose targets around Scope 3 emissions. The disclosure of Scope 3 emissions was not required for smaller reporting companies (SRCs) and there were additional phase-in requirements for Scope 3 relative to the other proposed disclosure. Filers for which it was required (all but SRCs) would have an additional year to report Scope 3 emissions after the initial compliance date for the other disclosure required in the annual report. Once enacted, large accelerated filers must comply with the rule first and accelerated and non-accelerated filers must comply in the following year.<sup>5</sup>

The SEC received over 10,000 comment letters on the proposed rule. In an analysis of the comment letters, the Commonwealth Climate and Law Initiative noted Scope 3 emissions as one of three primary arguments against the proposed rule.<sup>6</sup> Indeed there are challenges for companies in reporting Scope 3 emissions. Collecting data for these emissions is difficult because they are not within the corporate boundary (i.e., the firm must obtain the data from its suppliers), and, in cases when the data cannot be collected (i.e., customers travel to the firm's location), the firm must

<sup>&</sup>lt;sup>5</sup> While it is unclear whether and how the requirements would be enforced, the mandated disclosure by itself can increase stakeholders' monitoring and expectations of firm activities.

<sup>&</sup>lt;sup>6</sup> See <u>https://commonwealthclimatelaw.org/further-review-of-public-comments-to-u-s-securities-and-exchange-commission-regarding-proposed-climate-change-disclosures/.</u>

estimate the information, resulting in potentially noisy data. Acknowledging the difficulty in obtaining Scope 3 emissions information, the SEC disclosure requirements applies to only sources of Scope 3 emissions in the value chain that are material to the firm.

While the requirement to disclose Scope 3 emissions was met with resistance, it was not a surprise. On March 15, 2021, the SEC made a public request for input on whether public disclosure adequately informs investors about climate change information. The request provided 15 questions for consideration. Question 2 specifically mentions Scope 3 emissions: "Are there specific metrics on which all registrants should report (such as, for example, scopes 1, 2, and 3 greenhouse gas emissions, and greenhouse gas reduction goals)?"<sup>7</sup>

Before the March 2021 request for input, SEC disclosure requirements around climate were focused on the risks that climate posed for the firm. In 2010, the SEC issued interpretive guidance (33-9106) that addressed climate change within the context of existing required disclosure.<sup>8</sup> The guidance, applying to disclosure including "Management Discussion and Analysis" and 10-K Item 1A "Risk Factors," identified examples of how climate change might prompt disclosure under current rules, including regulation around GHG emissions and the physical impacts of climate change from severe weather. The SEC acknowledged the increase in demand for climate change information since 2010, and in 2020, took additional steps to address the disclosure of such information, ending the year with the ESG subcommittee under the Asset Management Advisory Committee putting forward a recommendation that the Commission mandate standardized disclosure of material ESG risks. Since the 2010 guidance that addressed climate change in the context of required disclosure, the staff had observed significant variation in the content, detail,

<sup>&</sup>lt;sup>7</sup> See <u>https://www.sec.gov/news/public-statement/lee-climate-change-disclosures.</u>

<sup>&</sup>lt;sup>8</sup> See <u>https://www.federalregister.gov/documents/2010/02/08/2010-2602/commission-guidance-regarding-disclosure-related-to-climate-change.</u>

and location of climate-related disclosure. In response, the proposed climate-related disclosure rule released in March 2022 expanded the required disclosure, with the intent of increasing "consistency, comparability, and reliability of climate-related information for investors."<sup>9</sup>

#### 2.2 Related literature

A stream of literature across economics, finance, and management examines the effect of environmental regulations on firm production and supply chain decisions. While this literature does not address *disclosure* regulations per se, the effects of environmental regulations on firm decisions on production and supply chain are presumably more direct and would set a baseline for understanding firm response. Within this literature, studies have examined the pollution haven hypothesis, which argues that firms will seek to avoid the cost of stringent environmental regulations by relocating production to countries with lax regulations, and arrived at mixed evidence (see review by Brunnermeier and Levinson 2004). More recent studies have delved into this issue by using data at the firm level, where production and outsourcing decisions are made.

Using variation in a composite index of environmental regulatory stringency across countries, Ben-David et al. (2021) find that firms headquartered in countries with strict environmental regulation emit less CO<sub>2</sub> locally and more CO<sub>2</sub> abroad than firms headquartered in countries with lenient regulation. Other studies have focused on specific environmental regulations introduced in a region or country. Dechezleprêtre et al. (2022) evaluate whether the European Union Emissions Trading System (E.U. ETS), which is a cap-and-trade program intended to lower greenhouse gas emissions by E.U. countries, caused multinational companies to relocate production from countries affected by the E.U. ETS to less-regulated countries in which they already operate. Comparing the same multinational's emissions in E.U. countries to non-E.U.

<sup>&</sup>lt;sup>9</sup> SEC Release 33-11042.

countries, the paper finds no evidence that multinationals shift their production in response to the regulation. The finding is consistent with earlier studies using non-firm-level data, such as trade flows in Naegele and Zaklan (2019), and finding no evidence that the E.U. ETS caused carbon leakage.

In the U.S., California implemented a similar trade-and-cap program. Using this setting, Bartram et al. (2022) document that, after the introduction of the program, financially constrained firms shift their production from California to other states where they have similar plants that are underutilized. Also exploiting variation across U.S. states, Dai et al. (2024) find that firms in states with more stringent regulations reduce the carbon emissions from their own production by outsourcing pollution to foreign suppliers to a greater extent than firms in other states. The crosssectional finding bolsters their baseline result that U.S. firms reduce the emissions from their own production at the expense of increased emissions abroad. The takeaway that U.S. firms outsource their pollution to foreign countries is consistent with the results of Li and Zhou (2017), who find that U.S. plants emit less when their parent firm imports more from low-wage countries. Taken together, the studies provide some evidence that, when faced with climate change regulation, firms take actions that circumvent the spirit of those regulations.

Accounting researchers and practitioners are specifically interested in the *disclosure* of environmental-related information and whether it has real effects on the firm. Specific to disclosure regulations, studies find that regulations have a positive effect on the variable to be disclosed in the context of a CSR disclosure mandate for firms listed on the Shanghai Stock Exchange and Shenzhen Stock Exchange (Chen et al. 2018), the U.K. carbon emissions mandate (Downar et al. 2021), the E.U. directive requiring large firms to prepare annual nonfinancial reports (Fiechter et al. 2022), and the U.S. greenhouse gas reporting program (Tomar 2023).

Studies have also examined how disclosure about suppliers' CSR performance has real effects on supply chains. Darendeli et al. (2022) find that, following the plausibly exogenous introduction of CSR ratings, suppliers with low CSR ratings have a reduction in their corporate customers and number of contracts. Given that CSR ratings are formed from mandatory and voluntary disclosure, the finding implies that disclosure about suppliers' negative CSR performance can affect a firm's decision to discontinue relationships with suppliers. She (2022) examines a California mandate requiring firms to disclose how they conduct due diligence on their suppliers' human rights abuses and finds better performance among suppliers after the regulation. While the disclosure mandate is not an environmental one, the finding suggests that disclosure mandates can affect a firm's assessment of suppliers prior to entering into contracts.

Most closely related to our study are studies examining the real effects of environmental disclosure regulations on firm production and supply chains. A concurrent working paper by Deng et al. (2023) examines the carbon disclosure regulation that requires U.K. firms to report Scope 1 and 2 emissions but not Scope 3. They find that, following the mandate, U.K. firms reduce the emissions from their own activities (i.e., Scope 1) at the expense of emissions from purchased goods and services (i.e., Scope 3). The substitution appears to be coming from outsourcing emissions to foreign suppliers, consistent with the pollution haven hypothesis mentioned earlier. Another working paper by Lu et al. (2023) uses the staggered introduction of mandatory ESG disclosure in different countries to examine how disclosure regulations, they switch to suppliers in countries with opaquer ESG disclosure. Taken together, both studies indicate that environmental disclosure regulations create incentives for firms to present themselves as compliant on the surface, while, in practice, they may be taking actions that contradict the underlying spirit of the regulations.

Our study builds on these studies by examining the effects of the SEC climate disclosure regulation on U.S. firms' production and supply chain decisions. However, unlike these studies, ours does *not* focus on how firms can avoid disclosing emissions or other activities that would hurt their ESG reputation. Rather, it focuses on understanding how firms assess the costs and benefits of production outsourcing to foreign countries when they are faced with the possibility of disclosing all GHG emissions, which makes outsourcing pollution an ineffective strategy.

#### 2.3 Hypothesis development

The SEC's proposed climate disclosure rule can increase the cost of disclosure for non-SRCs. First, it is challenging for firms to measure their Scope 3 emissions accurately, as they would need estimate based on data shared by their suppliers. Not all suppliers estimate their emissions, and, even if they do, it is unclear whether their estimates would be consistent with the SEC's expectations under its proposed rule. Therefore the complexity of measuring Scope 3 emissions accurately can increase the cost of gathering, obtaining, and reporting emissions for firms. Second, prior to the SEC's proposed disclosure rule, firms with incentives to lower their GHG emissions can hide their GHG emitting activity by outsourcing abroad under the assumption that Scope 1 emissions and emissions from suppliers located in the U.S. are arguably more visible to stakeholders. However, with the SEC's proposed rule, such a strategy becomes less viable for non-SRCs because they face the requirement to include non-U.S. supplier-produced (i.e., Scope 3) emissions. Therefore, the proposed disclosure rule can be costly for non-SRCs seeking to maintain or enhance their ESG reputation.

The SEC climate disclosure rule is not final, and it is unclear when the new rule will take effect. This creates uncertainty about the requirement to disclose Scope 3 emissions, which has been a major point of contention, resulting in firms evaluating what actions to take in anticipation of the final rule. If non-SRCs do not anticipate Scope 3 emissions being part of the final rule, they would not take any actions to minimize the associated disclosure costs mentioned above. Conversely, some non-SRCs might view the likelihood of disclosing Scope 3 emissions in the SEC's final rule as higher but expect that, even if it were excluded from the SEC's final rule, federal, state or international regulators, or other stakeholders could demand disclosure in the future. Therefore our hypothesis on whether non-SRCs would change their supply chain decisions in response to the SEC's proposed rule also serves as a test of their expectations regarding the requirement to disclose Scope 3 emissions.

The costs associated with Scope 3 emissions disclosure can change the cost-benefit tradeoff between in-house production and foreign outsourcing for non-SRCs. First, for non-SRCs aiming to report lower emissions, outsourcing emissions to foreign countries becomes less desirable because emissions from non-U.S. suppliers are part of Scope 3 emissions. As firms do not exercise direct control over their suppliers, a better long-term approach to lower GHG emissions would involve ensuring a more sustainable and less pollutive in-house production. This may require investment in specialized and specific assets that suppliers cannot or will not invest in. Indeed theory and empirical evidence suggest that outsourcing is decreasing in asset specificity (Williamson 1985; Sedatole et al. 2012). Second, Scope 3 emissions originating from non-U.S. suppliers are outside the firm's direct control. From a reporting perspective, non-SRCs would have to rely on their suppliers to provide the data, but not all suppliers have the resources or expertise to do so. Even if they do, firms would have to integrate the data with their own framework or methodology for measuring Scope 3 emissions and estimate their Scope 3 emissions, resulting in potential inaccuracies.<sup>10</sup> Furthermore, limited direct control over the emissions generated by

<sup>&</sup>lt;sup>10</sup> The estimation gives firms some discretion, and thus, control over what their *reported* Scope 3 emissions would be, but the discretion could result in inaccurate *actual* Scope 3 emissions.

suppliers inhibits the implementation of emissions reduction strategies or of holding suppliers accountable for their emissions. While firms can include terms on how to measure and report GHG emissions, emissions reduction targets, etc., in supplier contracts, the complexity of measuring and reducing Scope 3 emissions prevents including all possible scenarios. Third, the proposed disclosure mandate likely makes it easier for managers to be evaluated based on their firms' reported GHG emissions. If managers are going to be held responsible for their firms' emissions, it would make sense for them to reduce foreign outsourcing and produce in-house as the controllability principle in the management accounting literature suggests that managers should be held accountable only for outcomes within their control (Atkinson et al. 2007, McNally 1980). Taken together, we hypothesize that non-SRCs, which would have to disclose Scope 3 emissions under the proposed rule, would rely less on foreign outsourcing to better manage their Scope 3 emissions and report lower overall GHG emissions.<sup>11</sup> The corresponding prediction in our setting is that non-SRCs would reduce their foreign imports in response to the SEC's proposed rule.

Our prediction is not without tension. First, non-SRCs may seek alternative options like coordinating with their foreign suppliers to reduce GHG emissions, instead of ending the relationship. Second, increased awareness of ESG issues among stakeholders, mandatory ESG disclosure, and ESG regulations in other countries and at the state level might have motivated some firms to modify their supply chains even before the SEC's proposed climate rule. Third, to the extent that firms doubt the inclusion of Scope 3 in the final rule, we won't observe a reduction in foreign imports among non-SRCs relative to SRCs.

#### 3. Sample, Data, and Research Design

<sup>&</sup>lt;sup>11</sup> On January 30, 2023, California bill SB 253 mandating the disclosure of Scope 3 emissions was introduced. The bill was ultimately approved by Governor Newsom on October 7, 2023. Our predictions would extend to this event but the recency of it precludes data to be able to study it.

#### 3.1 Sample construction

We start with all Compustat firms from 2018 to 2023. We start with 2018 as that provides a 3-year window to establish firm practices prior to 2021, which is the first year of our treatment window. We use 2021 onwards as the treatment years because the SEC statement issued on March 15, 2021 seeking feedback on climate change disclosure hinted at the inclusion of Scope 3 emissions.<sup>12</sup> Although the SEC proposed the final rule in March 2022, our early treatment window allows us to capture firms' anticipatory behavior. Our sample ends in 2023, the latest year of available data. We exclude financial firms (SIC codes 6000-6999) due to their different reporting and regulatory standards as well as firm-years with missing control variables for our main analyses. To get a clean classification of treated and control firms, we only keep firms that are consistently classified as either control or treated firms in our sample period. To ensure that our results are not affected by the change in firm composition, we exclude firms without observations in both pre-and post-proposal periods. Our main sample consists of 18,081 fiscal firm-years from 2018-2023, representing 3,636 unique firms. Table 1 outlines the selection process of our main sample.

#### 3.2 Variable measurement

#### 3.2.1 Definition of treated firms

As the inclusion of Scope 3 emissions in the SEC's proposed disclosure rule only targets non-smaller reporting companies (non-SRCs), we define treated firms as non-SRCs, and control firms as SRCs. Our tests assume that non-SRCs anticipated that the rule, when eventually adopted, would be required for them. Specifically, in accordance with the new SRC definition adopted by the SEC in 2018, we categorize a firm as an SRC if it satisfies any of the following conditions: (1) the firm has public float of less than \$250 million; (2) the firm has less than \$100 million in annual

<sup>&</sup>lt;sup>12</sup> Furthermore, as mentioned in section 2.1, in December 2020, the ESG subcommittee under the Asset Management Advisory Committee recommended that the Commission mandates standardized disclosure of material ESG risks.

revenues and no public float or public float of less than \$700 million. Following this methodology, our main sample consists of 2,227 unique treated firms and 1,409 unique control firms.

#### *3.2.2 Definition of imports*

We obtain the transaction-level customs import-export data from S&P Panjiva. The Panjiva U.S. import data contains transaction-level details of goods crossing the U.S. border based on the original shipment data from the U.S. Customs and Border Protection. Each transaction record in the U.S. Panjiva import data includes detailed transaction information including the consignees (i.e., customers), shippers (i.e., suppliers), product descriptions, the quantity imported or exported, and other transaction-specific details.<sup>13</sup> Based on the S&P's identification system, we link the consignees in Panjiva with corresponding parent firms in Compustat. A limitation of the Panjiva U.S. import data is that it contains only maritime transactions, which underestimates the imports from neighboring countries (i.e., Mexico and Canada), for which the land transportation accounts for a major portion of trade. Therefore, we utilize the Panjiva Mexico export data to complement our U.S. import data, following Hsu et al. (2023).<sup>14</sup> The Panjiva Mexico export data contains transactions through all types of transportation, including maritime, air, truck, rail, etc. To avoid the double-counting problem, we only augment non-maritime transactions. We also exclude imports from foreign subsidiaries of U.S. parent firms (i.e., internal suppliers) (Dai et al. 2024), as these imports would be part of Scope 1 emissions and would be required disclosure regardless of the Scope 3 requirement.

We construct two measures to capture the intensity of import activity at the fiscal firm-year

<sup>&</sup>lt;sup>13</sup> Factset Revere Supply Chain Relationships database provides another source of supply chain data. A limitation of this data is that it is sourced from public disclosure, so it contains only significant suppliers that are required to be disclosed (potentially from significant customer disclosure) and voluntary disclosure. Our data is not subject to any selective disclosure concerns.

<sup>&</sup>lt;sup>14</sup> Panjiva does not collect data from customs in Canada.

level. Specifically, the first measure, *Import Volume/Sale*, is the total shipment volume (measured in twenty-foot equivalent units) a firm receives from foreign countries scaled by sales during the current fiscal year. The second measure, *Import Weight/Sale*, is defined similarly but based on the shipment weight measured in kilograms.<sup>15</sup>

#### 3.3 Summary statistics

Table 2 presents the summary statistics for our main sample. The mean values of *Import Volume/Sale* and *Import Weight/Sale* are 0.036 and 0.025, respectively. The mean values of our key independent variables of interest, *Treat* and *Post*, are 0.632 and 0.435, respectively, suggesting that 63.2% of firm-years in our sample are classified as treated firm-years and 43.5% of firm-years are during the post-proposal period.

#### 3.4 Research design

We use the following ordinary least squares model with a difference-in-differences (DID) design to examine the effect of the proposed SEC climate disclosure rule on imports:

$$Import_{i,t} = \alpha + \beta_1 Treat_i \times Post_t + \beta_k Controls_{i,t} + \delta_i + \gamma_t \text{ or } \gamma_{ind \times t} + \epsilon_{i,t}$$
(1)

The dependent variable, *Import<sub>i,t</sub>*, represents firm *i*'s import activity during fiscal year *t*, proxied by two variables, including *Import Volume/Sale* and *Import Weight/Sale*. *Treat<sub>i</sub>* is an indicator variable for non-SRC firms, and *Post<sub>t</sub>* is an indicator variable equal to one for observations on or after the proposed SEC climate disclosure rule (i.e., 2021-2023) and zero for the period from 2018 to 2020. Following recent literature (e.g., Bisetti et al. 2023; Hsu et al. 2023; Niu et al. 2023), we control for a set of firm-level characteristics, including firm size (*Size*), financial leverage (*Leverage*), cash holdings (*Cash*), profitability (*ROA*), tangibility (*PPE*), and

<sup>&</sup>lt;sup>15</sup> In untabulated analyses, our main inferences are consistent when using total assets or cost of goods sold as the scalar. In Section 6.1, we show that our main inferences are consistent when using the dollar value of imports (*Import Value/Sale*) as the dependent variable. To ensure that inflation is not affecting our main inferences, in untabulated analyses, we adjust sales to 2019 dollars based on the CPI and our conclusions are unchanged.

sales growth rate (*Sales Growth*). We include firm fixed effects to control for any unobservable firm-specific, time-invariant characteristics that might affect firms' import activity, and focus on within-firm changes in import activity. We also include fiscal year fixed effects, to control for any unobservable general time trends that impact import activity. In an alternative model specification, we include two-digit SIC industry  $\times$  fiscal year fixed effects to control for any time-varying, industry-level characteristics that may affect firms' import activity. We cluster standard errors by firm to account for the within-firm correlation of residuals across years.

#### 4. Main Analyses

#### 4.1 Baseline tests: Effect of the proposed SEC climate disclosure rule on imports

In baseline tests of the effect of the proposed SEC climate disclosure rule on import activity, we estimate Eq. (1) and tabulate the regression results in Table 3 Panel A. In column 1 where we use *Import Volume/Sale* as the dependent variable and only include firm and fiscal year fixed effects as control variables, the coefficient on *Treat* × *Post* is significantly negative (coef.= -0.012; t-stat.= -3.34). In column 2, the inferences are quite similar after further controlling for a set of firm characteristics (coef.= -0.011; t-stat.= -3.18). Column 3 presents the results including firm and industry × fiscal year fixed effects and also reports a significantly negative coefficient on *Treat* × *Post* (coef.= -0.011; t-stat.= -2.95). Columns 4-6 show consistent results using *Import Weight/Sale* as the dependent variable. These results in Table 3 Panel A indicate that non-SRCs reduce their import activity relative to SRCs following the revelation that Scope 3 emissions may be part of the proposed SEC climate disclosure rule.

As the parallel trend assumption must be satisfied to get a reliable DID estimator, we conduct an event-time analysis to examine the dynamic treatment effect of the proposed SEC climate disclosure rule on imports and test the validity of the parallel trend assumption (Angrist

and Pischke 2008). Specifically, we estimate the following ordinary least squares model:

$$Import_{i,t} = \alpha + \beta_1 Treat_i \times Pre3_t + \beta_2 Treat_i \times Pre2_t + \beta_3 Treat_i \times Current_t$$
(2)  
+  $\beta_4 Treat_i \times Post1_t + \beta_5 Treat_i \times Post2_t + \beta_k Controls_{i,t} + \delta_i$   
+  $\gamma_t \text{ or } \gamma_{ind \times t} + \epsilon_{i,t}$ 

*Pre3* (*Pre2*, *Current*, *Post1*, *Post2*) is an indicator variable equal to one for fiscal year 2018 (2019, 2021, 2022, 2023), and zero otherwise. *Pre1* is omitted since it serves as the benchmark period. Table 3 Panel B shows the results estimating Eq. (2). Across columns 1-6, the coefficients on *Treat* × *Pre3* and *Treat* × *Pre2* are not different from zero, the coefficients on *Treat* × *Current* are negative although insignificant, and the coefficients on *Treat* × *Post1* and *Treat* × *Post2* are significantly negative. Notably, there is an increasing trend in the magnitude of the coefficients from *Treat* × *Current* to *Treat* × *Post2*, suggesting an increasing treatment effect over time. Figure 1 Panel A (B) plots the coefficients of the results in column 3 (6) of Table 3 and includes 90% confidence intervals calculated based on standard errors clustered by firm. Overall, the results in Table 3 Panel B and Figure 1 provide support to the validity of the parallel trend assumption.

Several concurrent studies in other settings indicate that firms not required to disclose Scope 3 emissions may outsource their emissions (Dai et al. 2024; Deng et al. 2023). To explicitly test whether our results are driven by a reduction in outsourcing by non-SRCs (i.e., treated firms), or an increase in outsourcing by SRCs (i.e., control firms), we separately analyze treated and control firms' import activity before and after the SEC climate disclosure proposal. Formally, we estimate the following model for treated and control firms, separately:

$$Import_{i,t} = \alpha + \beta_1 Post_t + \beta_k Controls_{i,t} + \delta_i + \epsilon_{i,t}$$
(3)

Table 3 Panel C tabulates the results estimating Eq. (3) for treated firms only. The negative and significant coefficients on *Post* suggest that treated firms in our sample experience a decline

in import activity during the post-proposal period. The results for control firms only in Table 3 Panel D show that control firms in our sample do not exhibit a significant change in import activity. The results in Table 3 Panels C-D confirm that our main inferences are driven by the reduction in treated firms' outsourcing instead of the increase in control firms' outsourcing, which provides new insights beyond other concurrent studies (Dai et al. 2024; Deng et al. 2023).

#### 4.2 Cross-sectional tests: Incentives to reduce foreign outsourcing

We conduct a set of cross-sectional analyses to strengthen our main inferences, utilizing the heterogeneity in firms' incentives to reduce foreign outsourcing as a response to the proposed SEC climate disclosure rule. We predict that the reduction in outsourcing is mainly present among firms finding Scope 3 emissions disclosure more costly. Under the proposed SEC climate disclosure rule, Scope 3 emissions are only required to be disclosed if they are material (including if the firm provides a Scope 3 target). Thus, we partition our sample into two based on NAICS-6 industry level supply chain GHG emission factors developed by the U.S. Environmental Protection Agency (EPA), which are intended for quantifying emissions from purchased goods and services using the spend-based method defined in the Greenhouse Gas Protocol Technical Guidance for Calculating Scope 3 Emissions that are more material to the firm. Table 4 Panel A presents the results using the median value of supply chain GHG emission factors as a cross-sectional sample split. Our results are concentrated among firms with higher supply chain GHG emission factors, to which Scope 3 emissions are more likely to be material.

Firms not currently reporting GHG emissions information may be doing so because they have higher emissions than voluntary disclosers, and are likely more affected by the potential mandated disclosure. Scope 3 emissions can constitute a substantial portion of emissions and are difficult to measure and report, so it is not surprising if firms with higher Scope 3 emissions do not voluntarily disclose their GHG emissions. We conjecture that the decrease in import activity of treated firms relative to control firms would concentrate among firms that do not voluntarily disclose GHG emissions information. Following recent studies (Aswani et al. 2023; Bolton and Kacperczyk 2023; Greenstone et al. 2023; Shi et al. 2023), we use S&P Trucost to classify firms into those that provide voluntary GHG emissions disclosure and those that do not.<sup>16</sup> As Table 4 Panel B shows, consistent with our conjecture, the reduction in outsourcing of treated firms relative to control firms not voluntarily disclosing GHG emissions.

Since the release of the proposed SEC climate disclosure rule, the SEC has received over 10,000 comments made by companies, trade associations, NGOs, investors, academics, and regulators, among others.<sup>17</sup> We expect the proposed disclosure rule to be less threatening for firms issuing supportive comments, in particular, on the mandatory Scope 3 emissions disclosure. We provide examples of public company comments in Appendix B. We manually match companies issuing comments on the SEC proposal with firms in Compustat and code whether each comment is supportive of mandating Scope 3 emissions disclosure. Then we partition our main sample based on the median value of the number of firms issuing supportive comments within each two-digit SIC industry, and tabulate the cross-sectional results in Table 4 Panel C. In line with our prediction, the results are concentrated in industries with fewer firms issuing supportive comments on the proposal of mandating Scope 3 emissions disclosure.

Finally, we consider the source of import activity. If firms seek to reduce the levels of Scope 3 GHG emissions, they will reduce their sourcing from countries with higher levels of

<sup>&</sup>lt;sup>16</sup> In the absence of voluntary GHG emissions disclosure, S&P Trucost will estimate GHG emissions based on the environmentally extended input-output (EEIO) model.

<sup>&</sup>lt;sup>17</sup> See <u>https://www.sec.gov/comments/s7-10-22/s71022.htm</u>.

pollution relative to countries that are "cleaner". We partition countries of origin based on the level of pollution measured as PM2.5 concentrations in 2021 as reported by IQAir. Countries in the bottom tercile (pollution less than 13.2  $\mu$ g/m<sup>3</sup>, where 5  $\mu$ g/m<sup>3</sup> or lower meets WHO guidelines) are classified as "clean" and all other countries, "dirty". Comparing imports from "clean" versus "dirty" countries in Table 4 Panel D, we find that import reductions from "dirty" countries are statistically greater than "clean" countries, consistent with our prediction.

Overall, the results in Table 4 suggest that the decrease in import activity of treated firms relative to control firms is concentrated among firms that find disclosure of Scope 3 emissions to be more costly, corroborating that the threat of Scope 3 disclosure in the SEC's proposed rule influences import activities.

#### 4.3 Cross-sectional tests: Ability to reduce foreign outsourcing

Next, we conduct another set of cross-sectional tests to examine how firms' ability to reduce foreign outsourcing influences their response to the proposed SEC climate disclosure rule. We expect the foreign outsourcing reductions to be concentrated among firms with greater flexibility and capacity to accommodate the reduction. First, some foreign-sourced inputs can be substituted with domestic inputs while others may be harder to produce or source domestically. For example, firms may not have substitutes for minerals that are mined overseas and therefore we would not expect firms heavily relying on importing minerals to reduce their foreign outsourcing. We identify the import of minerals (defined as two-digit Harmonized System (HS) codes 26, 27, 28 and 81) and construct a two-digit SIC industry level measure of the reliance on mineral imports, which is calculated as the import of minerals scaled by total imports. Table 5 Panel A presents the results using the median value of the reliance on mineral imports as a cross-sectional sample split. Our results are only concentrated among firms in industries that rely less on mineral imports, for

which it is less challenging to find substitutes. There is no evidence of reduction in foreign outsourcing among firms in industries that are dependent on importing minerals, implying that there are constraints that limit firms' responses to the proposed SEC rule even in the presence of incentives.

Second, firms cannot easily increase production unless they have sufficient capacity. We predict that firms with excess capacity would find it more feasible to bring production in house, which enables them to reduce foreign outsourcing. Following prior literature (Modi and Mishra 2011; Manikas and Patel 2016), we construct an industry mean adjusted standardized measure of excess production capacity, defined as each firm's ratio of sales-to-production resources (i.e., property, plant, and equipment) compared to its four-digit SIC industry. A lower ratio indicates more production slack and excess capacity with respect to a firm's production resources than its industry. We split our sample in two based on the median value of excess production capacity and tabulate the results in Table 5 Panel B. Consistent with our prediction, the reduction in foreign outsourcing is concentrated among firms with higher excess production capacity.

Next, we consider whether the firm has publicly stated GHG emissions reduction targets. If these firms are already working towards lowering GHG emissions, then they may have already taken steps to reduce emissions in the supply chain and would find it challenging to further reduce foreign outsourcing. As reported in Table 5 Panel C, in line with our predictions, we find that reductions in importing concentrate in firms that do not have GHG emissions targets. Overall, the results in Table 5 indicate that the reduction in import activity of non-SRCs relative to SRCs is mainly present among firms with greater ability to reduce foreign outsourcing in response to the SEC's proposed rule.<sup>18</sup>

<sup>&</sup>lt;sup>18</sup> Some U.S. states have already adopted economy-wide GHG reduction targets. Firms facing state-level GHG emissions reduction targets may have already adjusted their outsourcing and therefore would be less responsive to the

#### 5. Additional Analyses

#### 5.1 Effect of the proposed SEC climate disclosure rule on in-house production

If firms reduce their foreign outsourcing, an option within reshoring is to increase in-house production. To corroborate our interpretation that the proposed Scope 3 disclosure decreases non-SRCs' preference for foreign outsourcing, we investigate whether non-SRCs increase their inhouse production after the release of the proposal in 2021, relative to SRCs. We posit that if firms reduce their outsourcing but maintain the same level of overall operating activity, they should increase in-house production. Empirically, it is challenging to use financial data to measure firms' actual in-house production, as measures based on inventory levels could not differentiate purchased inventory from in-house produced inventory. Thus, we construct a set of disclosurebased proxies for in-house production using narratives in the presentation part of earnings conference calls – one of the most significant information events to the market (e.g., Frankel et al. 1999; Bowen et al. 2002).<sup>19</sup> This measure helps overcome the challenge of using measures that include inventory levels to capture production (Roychowdhury 2006). Furthermore, managerial discussion of in-house production during earnings calls can capture both existing and future inhouse production activities. We use a list of keywords to identify managers' discussion of in-house production (see Appendix A). Our first firm-year level proxy is the number of earnings calls mentioning in-house production activities scaled by the total number of earnings calls hosted by the firm (*Call Ratio*). The second proxy is the number of sentences discussing in-house production

SEC disclosure rule. We partition our sample into two subsamples based on whether firms are from states that have targets with emissions inventory monitoring and reporting (Korganbekova 2023). In untabulated analyses, the results largely appear to concentrate in firms from states that currently do not have any GHG emissions reduction targets in place, but the coefficients when *Import Volume/Sale* is the dependent variable are not different at conventional levels. <sup>19</sup> Unlike the Q&A part of the earnings calls, the presentation part is likely to represent what managers think is a meaningful summary of the firm's existing and future activities. The Q&A part reflects topics deemed significant by call participants, leaving managers with no opportunity to mention about in-house production even if there had been enhancements or future plans to do so.

scaled by the total number of sentences (*Sentence Ratio*). Table 6 tabulates the results estimating a modified Eq. (1) using *Call Ratio* or *Sentence Ratio* as the dependent variable. Results indicate an increase in the discussion of in-house production after the proposed SEC climate disclosure rule for non-SRCs relative to SRCs.<sup>20 21</sup>

#### 5.2 Effect of the proposed SEC climate disclosure rule on environmental outcomes

In further analyses, we examine how the threat of SEC climate disclosure induces real changes to non-SRCs' environmental outcomes that could potentially reduce GHG emissions. First, we obtain data on a series of environmental activities from Refinitiv ESG, including environmental supply chain management (*Envi Supply Chain Mgmt*), environmental products (*Envi Product*), environmental materials sourcing (*Envi Materials Sourcing*), and ESG innovation score (*ESG Innovation*).<sup>22</sup> Table 7 Panel A presents the results estimating a modified Eq. (1) using these proxies for environmental activities as dependent variables. These results suggest that non-SRCs engage in more environmental activities after the SEC's proposed disclosure rule, relative to SRCs.

Second, focusing on manufacturing firms, we examine pollution behavior. Under the Emergency Planning and Community Right to Know Act, manufacturing plants (SIC codes 2000 to 3999) with more than 10 full-time employees are required to report the amount and number of toxic chemicals that are released into the air, water, or land.<sup>23</sup> Following Lyu et al. (2022), we

<sup>&</sup>lt;sup>20</sup> We acknowledge that increased discussion of in-house production does not equate to an increase in in-house production. Our list of key words includes more general ones such as "firm boundary", "in-house production", and "in-house manufacturing" which might not necessarily represent an increase in production, but many words such as "acquire suppliers", "vertical acquisitions", "reduce outsourcing", "outsource less", and their variations represent an increase in production.

<sup>&</sup>lt;sup>21</sup> In untabulated analyses, we find that non-SRCs exhibit an increase in the number of employees after the proposed SEC climate disclosure rule, relative to SRCs. This suggests an increase in firm operations and activities, which includes production. While this alone is not conclusive evidence, the combined evidence with increased discussion of in-house production in earnings calls aligns with an increase in in-house production.

<sup>&</sup>lt;sup>22</sup> In untabulated analyses, we use environmental pillar ratings or overall ESG ratings as the dependent variable and find consistent evidence that non-SRCs' ratings increase after the SEC proposal, relative to SRCs.

<sup>&</sup>lt;sup>23</sup> See <u>https://www.govinfo.gov/content/pkg/USCODE-2019-title42/html/USCODE-2019-title42-chap116.htm</u>.

construct several pollution proxies based on the data from the U.S. EPA Toxics Release Inventory (TRI) Program, including toxic releases intensity (*Toxic Releases/Production, Toxic Releases/Sale*), the number of polluting plants (*Num Polluting Plants*), and the number of chemicals emitted (*Num Chemicals*). As reported in Table 7 Panel B, treated firms experience a reduction in toxic releases, the number of polluting plants, and the number of chemicals emitted during the post-period, compared to control firms. Overall, the results in Table 7 suggest that the proposed SEC climate disclosure rule incentivizes non-SRCs to undertake real environmental efforts such as increasing environmental products and materials and reducing pollution.

#### 6. Robustness Tests

#### 6.1 Import measure issues

In our main analyses, we do not use the dollar value of imports as the dependent variable, due to the incomplete coverage of import dollar values in the Panjiva U.S. import data. In this subsection, we test the robustness of our analyses using this alternative measure of import intensity as the dependent variable. As Panjiva has a better coverage on import weight, following recent studies (Jain et al. 2014; Cen et al. 2023; Hsu et al. 2023; Jain and Wu 2023), we impute missing import dollar value by using the average value-to-weight ratio of each import country-HS code-year pair. When this condition is not met, we repeat the process using the average value-to-weight ratio at the import country-firm-year level, and if needed, at the import country-firm level, import country-two digit SIC industry-year level, with the data limitation in mind, we use the dollar value of imports (*Import Value/Sale*) as the dependent variable to re-estimate our main results, including the average and dynamic treatment effects (Table 8 Panel A) and cross-sectional tests (Table 8 Panels B-C). Overall, the results in Table 8 are consistent with our main inferences.

To mitigate the concern that our import measure does not fully capture the shipments via land transportation, we exclude firms in automotive related businesses (SIC codes 3711, 3713, 3714, 5010, 5012, 5013, 5500-5599, and 7500-7599), as automotive products have a major portion of trade via land transportation within North America (Hsu et al. 2023). The results in Table 9 Panel A suggest that our results are largely unaffected by dropping automotive firms.

#### 6.2 Difference between non-SRCs and SRCs as an alternative explanation

To alleviate the concern that potential discrepancies between non-SRCs and SRCs may drive the results, we employ entropy balancing approach to reweight our treated sample and control sample by matching firms on the dependent variable in the pre-period and all control variables except for firm size in our main analyses with 0.01 tolerance (Hainmueller 2012; McMullin and Schonberger 2020, 2022).<sup>24</sup> The results based on an entropy balanced matched sample in Table 9 Panel B yield consistent evidence. In addition, we further control for the squared value of firm size to allow for nonlinearities and get similar results.

#### 6.3 Potential macroeconomic events affecting temporal shifts in foreign outsourcing

During our study period, there were macroeconomic events in the U.S. that potentially motivated firms to "reshore" production, leading to reduction in imports. For these events to be solely responsible for our findings, they would need to differentially impact non-SRCs and explain all our cross-sectional results. For example, the event would need to create dissimilar incentives for non-SRCs and SRCs to import from overseas, and especially when the non-SRCs and SRCs have greater Scope 3 emissions, more strongly oppose the proposed SEC rule around Scope 3 emissions disclosure, did not voluntary disclose GHG emissions, and import from dirty countries. Given that these cross-sectional cuts are specific to climate change, it is not immediately obvious

<sup>&</sup>lt;sup>24</sup> We balance on the first, second and third moments. We cannot implement entropy balancing for firm size due to substantial difference between our treated and control firms, based on their definitions.

that macroeconomic events can explain all our findings. Nonetheless, we consider some notable events during our sample period, and conduct tests to rule out alternative explanations.

First, Brexit officially began in 2020 and may have caused firms to reduce imports from the U.K. We repeat our main analyses excluding imports from the U.K. and find our main conclusions remain. Second, the imposition of import tariffs in 2018 and 2019, particularly on goods from China, impacted imports in our sample period. If firms respond to the tariffs, we would observe a reduction in imports during and shortly after 2018 and 2019. However, our results indicate a reduction in the post-period (2021 to 2023) compared to the pre-period (2018 to 2020).<sup>25</sup> Nevertheless, we repeat our main analyses excluding imports from China and our results remain.

Third, the supply chain disruptions that occurred during the COVID-19 pandemic could have led to decreased imports. Even if firms' imports were not directly affected, the disruptions highlighted negative impacts of reliance on overseas suppliers and may have encouraged U.S. firms to reduce imports from foreign suppliers. For these explanations to make sense, the differential impact that the supply chain disruptions have on non-SRCs and SRCs need to concentrate in climate change related settings (e.g., strong opposition to Scope 3 emissions disclosure), which are not directly tied to supply chain disruptions. Nonetheless, to rule out COVID-19 supply chain disruptions as an alternative explanation, we focus on imports from Canada and Mexico because the supply chain disruptions were less severe for non-transoceanic transportation routes. Our inferences remain.

Collectively, we do not believe these macroeconomic events entirely explain our results. However, we acknowledge that these events likely impact import activity in our sample period,

<sup>&</sup>lt;sup>25</sup> It is possible that the tariff effect was delayed by a few years, resulting in an import reduction only beginning from 2021. However, according to estimates from the Tax Foundation, the dollar value of imports was lowest in 2020 and was back to above 2018 levels by 2021 and 2022. See <u>https://taxfoundation.org/research/all/federal/tariffs-trump-trade-war/</u> (accessed December 6, 2023).

and are by no means a comprehensive list of macroeconomic events that occurred in the period.<sup>26</sup> Therefore, to further strengthen our inferences, we conduct a placebo test, which is described in the next section.

#### 6.4 Placebo test

Our main tests exclude foreign imports from firms' subsidiaries as these Scope 1 emissions are unaffected by Scope 3 disclosure requirements. If macroeconomic factors explain a decrease in foreign imports by non-SRCs, we should observe a similar decrease in imports from the firms' own subsidiaries. By contrast, if the SEC's proposed Scope 3 disclosure requirement explains non-SRCs' reduction in foreign imports, there would be no decrease in imports from subsidiaries. As subsidiaries' GHG emissions would already be included in Scope 1 emissions, the requirement to disclose Scope 3 emissions should not alter firms' behaviors with respect to subsidiary imports. In untabulated tests, where we replace our dependent variable with only subsidiary, and not all, imports, we find no statistically significant reduction, further supporting our main hypothesis.

#### 7. Conclusion

We examine changes in firm supply chain decisions following the SEC's proposed climate disclosure rule, which requires Scope 3 emissions disclosure. Using a difference-in-differences design, we compare the import activity of treated firms (non-SRCs) to unaffected firms (SRCs) before and after the threat of Scope 3 disclosure in the proposed SEC rule was revealed. We find a decrease in import activity for non-SRCs relative to SRCs, implying that the proposed disclosure rule creates costs that make foreign outsourcing less favorable. We conduct cross-sectional tests, indicating a concentration of results among firms with greater incentives to reduce foreign

<sup>&</sup>lt;sup>26</sup> For example, the CHIPS and Science Act that was signed into law in August 2022 provided funding for the development of a domestic infrastructure for semiconductor production; firms may have begun reshoring in anticipation.

outsourcing in response to the proposed SEC rule, including firms with material Scope 3 emissions, firms not voluntarily disclosing emissions information, firms in industries with fewer supportive comments on the mandated Scope 3 disclosure in the SEC's proposal, and imports from more pollutive countries. In a second set of cross-sectional tests, our main results are mainly present among firms with higher ability to reduce foreign outsourcing to respond to the SEC's proposal, including firms less relying on imports of minerals, firms with excess production capacity, and firms without publicly stated GHG emissions reduction targets. These findings suggest that the results are mainly present among firms that find disclosure of Scope 3 emissions to be particularly costly and firms that are better able to reduce foreign outsourcing, allowing us to better attribute the change in import activity to the SEC's proposed rule. Finally, we provide evidence that non-SRCs also increase their in-house production, and exhibit greater improvements in environmental efforts, compared to SRCs.

Our study contributes to the literature on the real effects of ESG disclosure by providing evidence of change in firms' supply chain decisions when the disclosure requirement becomes more expansive, and the existing strategy is less effective. Our study also contributes to the ongoing discussion about the SEC's climate disclosure rule, which has attracted significant interests from various stakeholders.

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#### Appendix A

Variable definitions

This table provides a detailed description of the procedures used to compute each variable used in the analyses. The data are obtained through the S&P Panjiva, Refinitiv ESG, U.S. Environmental Protection Agency (EPA), S&P Trucost, S&P Capital IQ, Compustat, U.S. Securities and Exchange Commission (SEC), and Net Zero Tracker. All continuous variables are winsorized at the 1<sup>st</sup> and 99<sup>th</sup> percentiles of their distributions.

Variable	Definition
Import Volume/Sale	The firm's import volume of shipments from foreign countries, measured in twenty-foot
	equivalent unit, scaled by sales for the current fiscal year.
	The firm's import weight of shipments from foreign countries, measured in million
Import Weight/Sale	kilograms, scaled by sales for the current fiscal year. This measure is multiplied by 100
	for ease of interpretation.

#### Primary dependent variables:

Primary independent and control variables:

Variable	Definition
	An indicator variable equal to one if the firm is categorized as a non-smaller reporting
	company (non-SRC), and zero otherwise. We categorize a firm as a SRC if it satisfies
Treat	any of the following conditions: (1) the firm has public float of less than \$250 million;
	(2) the firm has less than \$100 million in annual revenues and no public float or public
	float of less than \$700 million.
Post	An indicator variable equal to one for fiscal year 2021 and onwards, and zero otherwise.
Size	The natural log of the firm's book value of assets at the prior fiscal year-end.
Lav	The firm's long-term debt and short-term debt scaled by total assets at the prior fiscal
Lev	year-end.
Cash	The firm's cash and short-term investments scaled by total assets at the prior fiscal year-
Cush	end.
PO1	The firm's net income for the current fiscal year scaled by total assets at the prior fiscal
KOA	year-end.
DDF	The firm's net property, plant, and equipment scaled by total assets at the prior fiscal
FFL	year-end.
Salas Growth	The growth rate of the firm's sales for the current fiscal year relative to sales for the prior
Sales Growth	fiscal year.

### Appendix A (continued)

Additional dependent variables:

Variable	Definition
Call Ratio	The number of in-house production-related earnings conference calls scaled by total number of earnings conference calls hosted by the firm for the current fiscal year. An in- house production-related earnings conference call is defined as an earnings conference call mentioning at least one of the keywords on in-house production in its presentation part: "vertical integration", "vertically integrated", "acquire suppliers", "vertical acquisition", "firm boundary", "in-house production", "in-house manufacturing", "reduce outsourcing", "outsource less", with variations (i.e. adding "s", "ed", or "ing").
Sentence Ratio	The number of sentences on in-house production scaled by total number of sentences in the presentation part of earnings conference calls hosted by the firm for the current fiscal year. The ratio is multiplied by 100 for ease of interpretation.
Envi Supply Chain Mgmt	The firm's environmental supply chain management score for the current fiscal year.
Envi Product	The firm's environmental products score for the current fiscal year.
Envi Materials Sourcing	The firm's environmental materials sourcing score for the current fiscal year.
ESG Innovation	The firm's ESG innovation score for the current fiscal year.
Toxic Releases/Production	The firm's toxic release amount scaled by the summation of cost of goods sold and the change in total inventory for the current fiscal year.
Toxic Releases/Sale	The firm's toxic release amount scaled by sales for the current fiscal year.
Num Polluting Plants	The firm's number of polluting plants for the current fiscal year.
Num Chemicals	The firm's number of polluting chemicals emitted for the current fiscal year.
Import Value/Sale	The firm's import dollar value of shipments from foreign countries, measured in million USD, scaled by sales for the current fiscal year.

Additional independent and control variables:

Variable	Definition
Supply Chain GHG Emission Factor	NAICS-6 industry level supply chain GHG emission factors developed by the U.S. EPA.
Voluntary GHG Emissions Disc	An indicator variable equal to one if the firm voluntarily discloses GHG emissions, and zero otherwise.
Support Comments	The number of firms issuing comments supportive of mandating Scope 3 emissions disclosure within each two-digit SIC industry.
Pollution in Supplier Countries	An indicator variable equal to one if the firm's imports come from a country that has PM2.5 concentrations higher than the sample bottom tercile in 2021 (13.2 µg/m <sup>3</sup> ). PM2.5 concentration data are obtained from IQAir ( <u>https://www.iqair.com/us/world-most-polluted-countries</u> ).
Mineral Reliance	The import of minerals scaled by total imports from foreign countries within each two- digit SIC industry, measured in twenty-foot equivalent unit. Minerals are defined based on two-digit Harmonized System (HS) codes 26, 27, 28 and 81.
Production Capacity	The firm's sales for the current fiscal year scaled by total property, plant, and equipment at the prior fiscal year-end. This measure is adjusted by four-digit SIC industry $\times$ fiscal year level mean and standard deviation.
GHG Reduction Target	An indicator variable equal to one if the firm has a GHG reduction target, and zero otherwise, based on the data from the Net Zero Tracker and Refinitiv ESG.

#### Appendix B

Examples of comments issued by public companies on the SEC climate disclosure proposal

#### Example 1: Supportive of the SEC proposal in general and the inclusion of Scope 3 emissions in particular

Excerpts from Alphabet, Autodesk, Dropbox, eBay, Hewlett Packard Enterprise, HP Inc., Intel, Meta, PayPal, and Workday's joint comments:

We support regular and consistent reporting of climate-related matters to complement the significant actions we each are taking to address climate change. We each already voluntarily report our Scope 1, 2, and 3 greenhouse gas ("GHG") emissions footprints, recognizing that Scope 3 involves a significant level of estimation, relies heavily on third party data, and is a nascent, fast-evolving category. We believe that it is critical to regularly measure and report on our progress towards our climate goals and to share updates with investors and other stakeholders.

We welcome the SEC's leadership on climate action and we are supportive of the SEC's efforts to establish required climate-related disclosures. Investors need consistent, comparable, and reliable information on the material risks and impacts of climate-related events and transition activities on a registrant's consolidated financial position. Investors are also asking for transparent and useful information around registrants' impact on climate change, such as emissions footprints and companies' abilities and efforts to reduce their carbon footprint. Such disclosures are effective when they provide investors and other stakeholders with useful information that informs decision making, in a manner that enables comparability across companies, and that balances the benefits with the operational costs to provide such information.

#### Example 2: Supportive of the SEC proposal in general but not the inclusion of Scope 3 emissions

Excerpts from Hydro One Limited's comments:

Hydro One recognizes and supports the importance of transparent and standardized ESG reporting. We support the SEC's decision to leverage the TCFD framework which is widely used and accepted by many companies, financial institutions, and investors. Providing climate related disclosures in accordance with the TCFD recommendations provides us a framework with which to report our work on reducing our carbon footprint and creating a resilient grid for the future.

We believe that disclosure of GHG emissions by an issuer, be it Scope 1, Scope 2, Scope 3, or a combination thereof, should be based on materiality. We believe that reporting of Scope 3 emissions should not be required for upstream and downstream value chain emissions over which the issuer has no control or influence, and it may be double-reported with disclosures reported by other issuers who have direct control over these GHG emission sources. If the SEC requires issuers to disclose Scope 3 emissions, we believe this process would be labour intensive and expensive for many organizations, including Hydro One. We believe that the labour and financial commitment needed to disclose Scope 3 emissions would be better spent on adapting to climate change and mitigating GHG emission impacts that are under the direct control of organizations.

#### **Example 3: Unsupportive of the SEC proposal**

Excerpts from Brigham Exploration Company's comments:

The SEC's proposed rule would be devastating to the country's oil and gas sector at a time when the domestic supply is as important as ever. The proposed rule would be tremendously burdensome and inherently unworkable for the publicly traded companies directly subject to its reporting requirements, as no doubt will be addressed by comments from those companies... The Commission has an obligation to consider all costs and benefits of its proposed rules. As noted above, however, it has failed to consider many of the indirect costs and economic repercussions of the proposal, particularly on privately held companies in the energy sector.

#### Figure 1

Dynamic treatment effect of the proposed SEC climate disclosure rule on imports

The figure in Panel A (B) below reports the coefficients of an ordinary least squares regression investigating the effect of the proposed SEC climate disclosure rule on imports in event time, using *Import Volume/Sale (Import Weight/Sale)* as the dependent variable. Formally, we estimate *Import<sub>i,t</sub>* =  $\alpha + \beta_1$  *Treat<sub>i</sub>* × *Pre3<sub>t</sub>* +  $\beta_2$  *Treat<sub>i</sub>* × *Pre2<sub>t</sub>* +  $\beta_3$  *Treat<sub>i</sub>* × *Current<sub>t</sub>* +  $\beta_4$  *Treat<sub>i</sub>* × *Post1<sub>t</sub>* +  $\beta_5$  *Treat<sub>i</sub>* × *Post2<sub>t</sub>* +  $\beta_k$  *Controls* +  $\delta_i + \gamma_{ind \times t} + \epsilon_{i,t}$ , where  $\delta_i$  and  $\gamma_{ind \times t}$  represent firm and industry × fiscal year fixed effects, respectively. In each panel, *Pre3 (Pre2, Current, Post1, Post2)* is an indicator variable equal to one for fiscal year 2018 (2019, 2021, 2022, 2023), and zero otherwise. Each point estimate is accompanied by a 90% confidence interval calculated based on standard errors clustered by firm. Note that *Pre1* has a coefficient of zero and no confidence interval as it serves as the benchmark period. All variables are defined in Appendix A.





Panel B: Use Import Weight/Sale as the dependent variable



Table 1Sample selection

Description	No. of firm-years dropped	No. of firm-years remaining
All fiscal firm-years in Compustat over 2018-2023		65,470
Exclude financial firms (SIC codes 6000-6999)	(30,978)	34,492
Exclude firm-years with negative sales or missing control variables	(8,847)	25,645
Exclude firms without consistent classification of smaller reporting companies	(4,696)	20,949
Exclude firms without observations in both pre- and post- periods	(2,868)	18,081
Final sample of firm-years		18,081
Final sample of unique firms		3,636

### Table 2Summary statistics

This table presents descriptive information for the sample and variables of interest. The sample consists of firm-years with the necessary data for the import tests during the fiscal years 2018 to 2023. Details of variable construction are contained in Appendix A.

Variables	Ν	Mean	SD	P25	P50	P75
Primary dependent variables:						
Import Volume/Sale	18,081	0.036	0.167	0.000	0.000	0.000
Import Weight/Sale	18,081	0.025	0.119	0.000	0.000	0.000
Primary independent variables:						
Treat	18,081	0.632	0.482	0.000	1.000	1.000
Post	18,081	0.435	0.496	0.000	0.000	1.000
Size	18,081	6.524	2.869	4.327	6.958	8.656
Lev	18,081	0.346	0.497	0.092	0.262	0.426
Cash	18,081	0.212	0.234	0.042	0.119	0.299
ROA	18,081	-0.151	0.674	-0.097	0.023	0.077
PPE	18,081	0.270	0.256	0.069	0.173	0.416
Sales Growth	18,081	0.237	0.918	-0.044	0.073	0.233

Effect of the proposed SEC climate disclosure rule on imports

This table presents the results examining the effect of the proposed SEC climate disclosure rule on imports. Panel A (B) shows the results of the average (dynamic) treatment effect. Panel C (D) shows the results for treated (control) firms only. In Panels A-B, columns 1-3 (4-6) show the results using *Import Volume/Sale* (*Import Weight/Sale*) as the dependent variable. In Panels A-B, columns 1, 2, 4, and 5 include firm and fiscal year fixed effects, and columns 3 and 6 include firm and industry × fiscal year fixed effects. In Panels C-D, columns 1-2 (3-4) show the results using *Import Volume/Sale* (*Import Weight/Sale*) as the dependent variable. In Panels C-D, all columns include firm fixed effects. The sample consists of firm-year observations from 2018-2023. All variables are defined in Appendix A. The *t*-statistics are reported below coefficient estimates in parentheses and are calculated based on standard errors clustered by firm. \*, \*\*, \*\*\* indicate statistics significance at the 0.10, 0.05, and 0.01 levels, respectively, using a two-tailed *t*-test.

Dependent variable:	_	Iı	nport Volume/Sa	le		Import Weight/Sale			
	Pr. Sign	(1)	(2)	(3)	(4)	(5)	(6)		
$Treat \times Post$	-	-0.012***	-0.011***	-0.011***	-0.006*	*** -0.006***	* -0.006**		
		(-3.34)	(-3.18)	(-2.95)	(-2.78	8) (-2.66)	(-2.49)		
Size			0.000	-0.000		-0.000	-0.000		
			(0.12)	(-0.10)		(-0.02)	(-0.23)		
Lev			-0.005*	-0.005		-0.003**	-0.003**		
			(-1.68)	(-1.57)		(-2.00)	(-2.04)		
Cash			0.009	0.009		0.003	0.003		
			(1.24)	(1.21)		(0.63)	(0.58)		
ROA			0.002	0.002		0.001	0.001		
			(0.88)	(1.14)		(0.95)	(1.21)		
PPE			0.008	0.015		0.011	0.012		
			(0.65)	(1.21)		(1.35)	(1.59)		
Sales Growth			-0.001	-0.001		-0.001**	-0.001**		
			(-1.22)	(-1.05)		(-1.98)	(-2.21)		
Firm FE		Yes	Yes	Yes	Yes	s Yes	Yes		
Year FE		Yes	Yes	No	Yes	Yes	No		
Year × Industry FE		No	No	Yes	No	No	Yes		
S.E. clustered by firm	l	Yes	Yes	Yes	Yes	Yes	Yes		
No. of observations		18081	18081	18068	1808	18081	18068		
Adj. R-Squared		0.711	0.711	0.716	0.72	9 0.729	0.734		

Panel A: Average treatment effect

#### Table 3 (continued)

Panel B: Dynamic treatment effect

Dependent variable:		In	nport Volume/Sa	le	Import Weight/Sale		
	Pr. Sign	(1)	(2)	(3)	 (4)	(5)	(6)
<i>Treat</i> × <i>Pre3</i>	0	0.007	0.007	0.006	0.002	0.002	0.001
		(1.51)	(1.51)	(1.21)	(0.71)	(0.67)	(0.16)
<i>Treat</i> × <i>Pre2</i>	0	-0.002	-0.002	-0.003	-0.002	-0.003	-0.003
		(-0.53)	(-0.53)	(-0.59)	(-0.92)	(-0.99)	(-1.12)
Treat × Current	0/-	-0.005	-0.005	-0.006	-0.003	-0.003	-0.004
		(-1.22)	(-1.20)	(-1.32)	(-1.18)	(-1.19)	(-1.56)
Treat × Post1	-	-0.015***	-0.014***	-0.014***	-0.009***	-0.008***	-0.009***
		(-3.13)	(-2.94)	(-2.85)	(-2.71)	(-2.61)	(-2.63)
Treat × Post2	-	-0.020**	-0.020**	-0.019**	-0.018**	-0.018**	-0.016**
		(-2.46)	(-2.39)	(-2.02)	(-2.50)	(-2.46)	(-2.50)
Size			0.000	-0.000		-0.000	-0.000
			(0.11)	(-0.11)		(-0.09)	(-0.31)
Lev			-0.005*	-0.005		-0.003**	-0.003**
			(-1.68)	(-1.56)		(-1.99)	(-2.01)
Cash			0.008	0.008		0.002	0.002
			(1.12)	(1.11)		(0.50)	(0.49)
ROA			0.001	0.002		0.001	0.001
			(0.75)	(1.02)		(0.88)	(1.17)
PPE			0.008	0.015		0.010	0.012
			(0.63)	(1.19)		(1.32)	(1.58)
Sales Growth			-0.001	-0.001		-0.001*	-0.001**
			(-1.19)	(-1.04)		(-1.95)	(-2.21)
Firm FE		Yes	Yes	Yes	 Yes	Yes	Yes
Year FE		Yes	Yes	No	Yes	Yes	No
Year × Industry FE		No	No	Yes	No	No	Yes
S.E. clustered by firm		Yes	Yes	Yes	Yes	Yes	Yes
No. of observations		18081	18081	18068	18081	18081	18068
Adj. R-Squared		0.711	0.711	0.717	0.729	0.729	0.734

#### Panel C: Treated firms only

Dependent variable:		Import Vo	olume/Sale	Import W	eight/Sale
	Pr. Sign	(1)	(2)	(3)	(4)
Post	-	-0.010***	-0.008***	-0.006***	-0.006***
		(-4.71)	(-3.18)	(-4.11)	(-3.53)
Size			-0.004		-0.000
			(-1.15)		(-0.01)
Lev			-0.014		-0.009
			(-1.45)		(-1.18)
Cash			0.014		0.006
			(0.96)		(0.59)
ROA			0.004		0.004
			(0.33)		(0.60)
PPE			-0.021		0.015
			(-0.77)		(0.89)
Sales Growth			-0.005		0.001
			(-1.18)		(0.40)
Firm FE		Yes	Yes	Yes	Yes
S.E. clustered by firm	L	Yes	Yes	Yes	Yes
No. of observations		11419	11419	11419	11419
Adj. R-Squared		0.716	0.716	0.718	0.717

#### Table 3 (continued)

Dependent variable:		Import Vo	olume/Sale	Import Weight/Sale			
	Pr. Sign	(1)	(2)	(3)	(4)		
Post	0	0.003	0.002	0.002	0.002		
		(0.87)	(0.59)	(0.77)	(0.80)		
Size			0.000		-0.002		
			(0.00)		(-0.91)		
Lev			-0.005		-0.004*		
			(-1.21)		(-1.93)		
Cash			0.012		0.004		
			(1.29)		(0.66)		
ROA			0.002		0.002		
			(0.97)		(1.22)		
PPE			0.031*		0.015		
			(1.93)		(1.44)		
Sales Growth			-0.001		-0.001		
			(-0.46)		(-1.62)		
Firm FE		Yes	Yes	Yes	Yes		
S.E. clustered by firm		Yes	Yes	Yes	Yes		
No. of observations		6662	6662	6662	6662		
Adi, R-Squared		0.712	0.712	0.749	0.749		

#### Panel D: Control firms only

Cross-sectional tests: Incentives to reduce foreign outsourcing

This table presents the results examining the influence of cross-sectional variation in incentives to reduce foreign outsourcing on the effect of the proposed SEC climate disclosure rule on imports. Panel A (B, C) shows the results using *Supply Chain GHG Emission Factor (Voluntary GHG Emissions Disc, Support Comments)* as the cross-sectional sample-split. Panel D shows the results focusing on imports from "clean" vs "dirty" countries. In each panel, columns 1-4 (5-8) show the results using *Import Volume/Sale (Import Weight/Sale)* as the dependent variable. Columns 1-2 and 5-6 include firm and fiscal year fixed effects, and columns 3-4 and 7-8 include firm and industry × fiscal year fixed effects. All variables are defined in Appendix A. Sample sizes vary based on availability of cross-sectional variables. The *t*-statistics are reported below coefficient estimates in parentheses and are calculated based on standard errors clustered by firm. \*, \*\*, \*\*\* indicate statistics significance at the 0.10, 0.05, and 0.01 levels, respectively, using a two-tailed *t*-test.

Proxy for incentives:	_	Supply Chain GHG Emission Factor							
Dependent variable:		Import Volume/Sale Import Weight/Sale							
Subsample:		Low	High	Low	High	Low	High	Low	High
	Pr. Sign	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treat × Post	0,-	-0.002	-0.021***	-0.004	-0.018**	-0.000	-0.012**	-0.002	-0.011*
		(-0.47)	(-2.60)	(-0.93)	(-2.17)	(-0.12)	(-2.30)	(-0.72)	(-1.91)
<i>p-value for difference in coefficients</i>		0.02		0.06		< 0.01		0.06	
Controls		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE		Yes	Yes	No	No	Yes	Yes	No	No
Year × Industry FE		No	No	Yes	Yes	No	No	Yes	Yes
S.E. clustered by firm		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of observations		7804	7595	7775	7563	7804	7595	7775	7563
Adj. R-Squared		0.696	0.716	0.706	0.718	0.717	0.727	0.730	0.727

#### Panel A: Materiality of Scope 3 emissions

#### Panel B: Voluntary GHG emissions disclosure

Proxy for incentives:		Voluntary GHG Emissions Disc							
Dependent variable:			Import Voli	ume/Sale		Import Weight/Sale			
Subsample:		Yes	No	Yes	No	Yes	No	Yes	No
	Pr. Sign	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treat × Post	0,-	-0.003	-0.022***	0.001	-0.025**	0.000	-0.010**	0.002	-0.012**
		(-0.63)	(-2.74)	(0.26)	(-2.52)	(0.01)	(-2.09)	(0.46)	(-2.07)
<i>p-value for difference in coefficients</i>		0.07		0.03		0.08		0.09	
Controls		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE		Yes	Yes	No	No	Yes	Yes	No	No
Year × Industry FE		No	No	Yes	Yes	No	No	Yes	Yes
S.E. clustered by firm		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of observations		5184	7265	5134	7227	5184	7265	5134	7227
Adj. R-Squared		0.709	0.731	0.721	0.745	0.695	0.739	0.704	0.753

#### Table 4 (continued)

Proxy for incentives:					Support C	omments			
Dependent variable:	-		Import Vol	ume/Sale		Import Weight/Sale			
Subsample:	-	High	Low	High	Low	High	Low	High	Low
	Pr. Sign	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treat × Post	0,-	-0.004	-0.021***	-0.004	-0.022***	-0.002	-0.013***	-0.002	-0.012***
		(-0.92)	(-3.58)	(-0.76)	(-3.36)	(-0.57)	(-2.98)	(-0.67)	(-2.64)
p-value for difference in coe	efficients	<(	).01	<(	).01	<(	).01	<(	).01
Controls		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE		Yes	Yes	No	No	Yes	Yes	No	No
Year × Industry FE		No	No	Yes	Yes	No	No	Yes	Yes
S.E. clustered by firm		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of observations		9662	8419	9662	8406	9662	8419	9662	8406
Adj. R-Squared		0.612	0.762	0.613	0.769	0.665	0.758	0.665	0.763

#### Panel C: Supportive comments to the proposed SEC climate disclosure rule

Panel D: Sourcing from "clean" vs "dirty" countries

Proxy for incentives:		Pollution in Supplier Countries								
Dependent variable:			Import Vo	olume/Sale		Import Weight/Sale				
Imports from countries:		Clean	Dirty	Clean	Dirty	Clean	Dirty	Clean	Dirty	
	Pr. Sign	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Treat × Post	0,-	-0.002***	-0.007**	-0.002***	-0.007**	-0.001**	-0.004**	-0.001**	-0.004**	
		(-2.92)	(-2.51)	(-2.67)	(-2.40)	(-2.53)	(-2.28)	(-2.47)	(-2.15)	
<i>p-value for difference in coefficients</i>		0.04 0.05		0.	10	0.	10			
Controls		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Firm FE		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Year FE		Yes	Yes	No	No	Yes	Yes	No	No	
Year × Industry FE		No	No	Yes	Yes	No	No	Yes	Yes	
S.E. clustered by firm		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
No. of observations		18081	18081	18068	18068	18081	18081	18068	18068	
Adj. R-Squared		0.675	0.730	0.678	0.737	0.688	0.736	0.691	0.741	

Cross-sectional tests: Ability to reduce foreign outsourcing

This table presents the results examining the influence of cross-sectional variation in ability to reduce foreign outsourcing on the effect of the proposed SEC climate disclosure rule on imports. Panel A (B, C) shows the results using *Mineral Reliance (Production Capacity, GHG Reduction Target)* as the cross-sectional sample-split. In each panel, columns 1-4 (5-8) show the results using *Import Volume/Sale (Import Weight/Sale)* as the dependent variable. Columns 1-2 and 5-6 include firm and fiscal year fixed effects, and columns 3-4 and 7-8 include firm and industry × fiscal year fixed effects. All variables are defined in Appendix A. Sample sizes vary based on availability of cross-sectional variables. The *t*-statistics are reported below coefficient estimates in parentheses and are calculated based on standard errors clustered by firm. \*, \*\*, \*\*\* indicate statistics significance at the 0.10, 0.05, and 0.01 levels, respectively, using a two-tailed *t*-test.

Proxy for ability:	_	Mineral Reliance								
Dependent variable:			Import Vol	ume/Sale		Import Weight/Sale				
Subsample:		High	Low	High	Low	High	Low	High	Low	
	Pr. Sign	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Treat × Post	0,-	-0.003	-0.020***	-0.005	-0.019***	-0.002	-0.011***	-0.003	-0.011***	
		(-0.69)	(-3.60)	(-0.92)	(-3.30)	(-0.54)	(-2.98)	(-0.87)	(-2.63)	
p-value for difference in coefficients		0.04		0	.07	0	.04	$\frac{0.07}{2.00}$		
Controls		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Firm FE		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Year FE		Yes	Yes	No	No	Yes	Yes	No	No	
Year $\times$ Industry FE		No	No	Yes	Yes	No	No	Yes	Yes	
S.E. clustered by firm		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
No. of observations		8514	9335	8514	9328	8514	9335	8514	9328	
Adj. R-Squared		0.666	0.742	0.665	0.753	0.687	0.755	0.688	0.763	

Panel A: Reliance on mineral imports

#### Panel B: Excess production capacity

Proxy for ability:	_	Production Capacity								
Dependent variable:	_		Import Vol	ume/Sale		Import Weight/Sale				
Subsample:		Low	High	Low	High	Low	High	Low	High	
	Pr. Sign	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Treat × Post	0,-	-0.006	-0.018***	-0.002	-0.016***	-0.003	-0.011***	-0.001	-0.010**	
		(-1.11)	(-3.11)	(-0.41)	(-2.62)	(-0.75)	(-3.02)	(-0.16)	(-2.43)	
<i>p-value for difference in coefficients</i>		0.05 0.07		0	.03	0.	.03			
Controls		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Firm FE		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Year FE		Yes	Yes	No	No	Yes	Yes	No	No	
Year × Industry FE		No	No	Yes	Yes	No	No	Yes	Yes	
S.E. clustered by firm		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
No. of observations		8261	8298	8216	8272	8261	8298	8216	8272	
Adj. R-Squared		0.692	0.720	0.715	0.728	0.695	0.739	0.714	0.747	

#### Table 5 (continued)

Panel C: GHG reduction	1 targets								
Proxy for ability:	0				GHG Reduc	ction Target			
Dependent variable:	-	Import Volume/Sale Import Weight/Sale							
Subsample:		Yes	No	Yes	No	Yes	No	Yes	No
	Pr. Sign	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treat × Post	0,-	0.005	-0.013***	0.013	-0.012***	-0.004	-0.007**	0.002	-0.007**
		(0.47)	(-3.18)	(1.23)	(-2.83)	(-0.65)	(-2.54)	(0.33)	(-2.29)
<i>p-value for difference in coefficients</i>		0.01 0.01 0.1		27	0	.09			
Controls		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE		Yes	Yes	No	No	Yes	Yes	No	No
Year × Industry FE		No	No	Yes	Yes	No	No	Yes	Yes
S.E. clustered by firm		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of observations		4453	13628	4398	13599	4453	13628	4398	13599
Adj. R-Squared		0.685	0.719	0.694	0.727	0.714	0.735	0.719	0.741

Effect of the proposed SEC climate disclosure rule on in-house production

This table presents the results examining the effect of the proposed SEC climate disclosure rule on the discussion of in-house production during conference calls. Columns 1-2 (3-4) show the results using *Call Ratio* (*Sentence Ratio*) as the dependent variable. Columns 1 and 3 include firm and fiscal year fixed effects, and columns 2 and 4 include firm and industry × fiscal year fixed effects. The sample consists of firm-year observations from 2018-2023. All variables are defined in Appendix A. The t-statistics are reported below coefficient estimates in parentheses and are calculated based on standard errors clustered by firm. \*, \*\*, \*\*\* indicate statistics significance at the 0.10, 0.05, and 0.01 levels, respectively, using a two-tailed t-test.

Dependent variable:		Call	Ratio	Sentenc	ce Ratio
	Pr. Sign	(1)	(2)	(3)	(4)
Treat × Post	+	0.007**	0.008**	0.012**	0.014**
		(2.21)	(2.42)	(2.19)	(2.40)
Controls		Yes	Yes	Yes	Yes
Firm FE		Yes	Yes	Yes	Yes
Year FE		Yes	No	Yes	No
Year $\times$ Industry FE		No	Yes	No	Yes
S.E. clustered by firm	l	Yes	Yes	Yes	Yes
No. of observations		18081	18068	18081	18068
Adj. R-Squared		0.467	0.465	0.596	0.596

Effect of the proposed SEC climate disclosure rule on environmental outcomes

This table presents the results examining the effect of the proposed SEC climate disclosure rule on environmental outcomes. Panel A (B) shows the results on environmental activities (pollution). In Panel A, columns 1-2 (3-4, 5-6, 7-8) show the results using *Envi Supply Chain Mgmt (Envi Product, Envi Materials Sourcing, ESG Innovation)* as the dependent variable. In Panel B, columns 1-2 (3-4, 5-6, 7-8) show the results using *Toxic Releases/Production (Toxic Releases/Sale, Num Polluting Plants, Num Chemicals*) as the dependent variable. In each panel, columns 1, 3, 5, and 7 include firm and fiscal year fixed effects, and columns 2, 4, 6, and 8 include firm and industry × fiscal year fixed effects. All variables are defined in Appendix A. The *t*-statistics are reported below coefficient estimates in parentheses and are calculated based on standard errors clustered by firm. \*, \*\*, \*\*\* indicate statistics significance at the 0.10, 0.05, and 0.01 levels, respectively, using a two-tailed *t*-test.

Dependent variable:		Envi Supply Chain Mgmt		 Envi P	Envi Product		Envi Ma Sour	aterials cing	ESG Inr	novation
	Pr. Sign	(1)	(2)	 (3)	(4)	_	(5)	(6)	(7)	(8)
Treat × Post	+	0.016***	0.007*	0.009**	0.009**		0.015***	0.007***	0.023***	0.028***
		(3.43)	(1.95)	(2.16)	(2.05)		(5.16)	(3.10)	(2.93)	(2.72)
Controls		Yes	Yes	 Yes	Yes		Yes	Yes	Yes	Yes
Firm FE		Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes
Year FE		Yes	No	Yes	No		Yes	No	Yes	No
Year $\times$ Industry FE		No	Yes	No	Yes		No	Yes	No	Yes
S.E. clustered by firm		Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes
No. of observations		3689	3640	3156	3118		2104	2061	3730	3696
Adj. R-Squared		0.961	0.974	0.978	0.988		0.972	0.983	0.863	0.861

#### Panel A: Environmental activities

#### Panel B: Pollution

Dependent variable:		Та	xic	Toric Rele	ases/Sale	Num Pollu	utina Plants	Num Ch	omicals
Dependent variable.		Releases/Production		Толіс Кеїе	uses/suie	11411110114	Polluting Plants         Num Chemicals           5)         (6)         (7)         (8)           1***         -0.227***         -0.171***         -0.160***           69)         (-2.75)         (-4.32)         (-3.89)           es         Yes         Yes         Yes           es         Yes         Yes         Yes           Ves         Yes         Yes         Yes		emicuis
	Pr. Sign	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treat × Post	-	-11.683***	-11.237**	-7.030**	-6.142*	-0.341***	-0.227***	-0.171***	-0.160***
		(-2.92)	(-2.39)	(-2.36)	(-1.78)	(-3.69)	(-2.75)	(-4.32)	(-3.89)
Controls		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE		Yes	No	Yes	No	Yes	No	Yes	No
Year $\times$ Industry FE		No	Yes	No	Yes	No	Yes	No	Yes
S.E. clustered by firm		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of observations		7656	7656	7681	7681	7681	7681	7681	7681
Adj. R-Squared		0.915	0.917	0.923	0.925	0.997	0.997	0.993	0.993

Robustness tests: Using dollar value of imports as the dependent variable

This table presents the robustness tests examining the effect of the proposed SEC climate disclosure rule on imports, using *Import Value/Sale* as the dependent variable. Panel A shows the results of the average and dynamic treatment effects. Panels B shows the results of cross-sectional tests on the incentives to reduce foreign outsourcing, with columns 1-2 (3-4, 5-6) using *Supply Chain GHG Emission Factor (Voluntary GHG Emissions Disc, Support Comments)* as the cross-sectional sample-split, and columns 7-8 focusing on imports from "clean" vs "dirty" countries. Panel C shows the results of cross-sectional tests on the ability to reduce foreign outsourcing, with columns 1-2 (3-4, 5-6) using *Mineral Reliance (Production Capacity, GHG Reduction Target)* as the cross-sectional sample-split. In Panel A, columns 1 and 3 include firm and fiscal year fixed effects, and columns 2 and 4 include firm and industry × fiscal year fixed effects. In Panels B-C, all columns include firm and fiscal year fixed effects. The sample consists of firm-year observations from 2018-2023. All variables are defined in Appendix A. The *t*-statistics are reported below coefficient estimates in parentheses and are calculated based on standard errors clustered by firm. \*, \*\*, \*\*\* indicate statistics significance at the 0.10, 0.05, and 0.01 levels, respectively, using a two-tailed *t*-test.

Dependent variable:			Import V	Value/Sale	
	Pr. Sign	(1)	(2)	(3)	(4)
Treat × Post	-	-0.093***	-0.097***		
		(-2.90)	(-2.80)		
<i>Treat</i> × <i>Pre3</i>	0			0.063	0.053
				(1.42)	(1.11)
<i>Treat</i> × <i>Pre2</i>	0			-0.020	-0.024
				(-0.52)	(-0.61)
Treat × Current	0/-			-0.023	-0.024
				(-0.59)	(-0.58)
Treat × Post1	-			-0.122***	-0.134***
				(-2.63)	(-2.68)
Treat × Post2	-			-0.225**	-0.273***
				(-2.44)	(-2.63)
Controls		Yes	Yes	Yes	Yes
Firm FE		Yes	Yes	Yes	Yes
Year FE		Yes	No	Yes	No
Year $\times$ Industry FE		No	Yes	No	Yes
S.E. clustered by firm		Yes	Yes	Yes	Yes
No. of observations		18081	18068	18081	18068
Adj. R-Squared		0.637	0.642	0.637	0.642

Panel A: Treatment effect

Panel B: Cross-sectional tests: Incentives to reduce foreign outsourcing

Dependent variable:		Import Value/Sale									
Drovy for incentives		Supply Cl	hain GHG	Volunta	ry GHG	Support	Commonte	Pollution	in Supplier		
Floxy for incentives.		Emissio	n Factor	Emissie	ons Disc	Support	comments	Countries			
Subsample/Imports from countries:		Low	High	Yes	No	High	Low	Clean	Dirty		
	Pr. Sign	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		
Treat × Post	0,-	-0.057	-0.149**	-0.047	-0.180**	-0.059	-0.149**	-0.013*	-0.060***		
		(-1.21)	(-2.17)	(-0.89)	(-2.32)	(-1.62)	(-2.56)	(-1.69)	(-2.70)		
p-value for difference in coe	efficients	0.	.15	0	.15	0	0.09		.07		
Controls		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Firm FE		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Year FE		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
S.E. clustered by firm		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
No. of observations		7804	7595	5184	7265	9662	8419	18081	18081		
Adj. R-Squared		0.609	0.618	0.593	0.668	0.585	0.674	0.596	0.677		

#### Table 8 (continued)

Dependent variable:	_	2	U	Import	Value/Sale		
Proxy for ability:		Mineral	Reliance	Productio	n Capacity	GHG Reduction Target	
Subsample:	-	High Low		Low	High	Yes	No
	Pr. Sign	(1)	(2)	(3)	(4)	(5)	(6)
Treat × Post	0,-	-0.012	-0.179***	0.007	-0.181***	-0.450	-0.068*
		(-0.24)	(-3.77)	(0.15)	(-3.54)	(-1.20)	(-1.95)
p-value for difference in co	oefficients	0	.01	0	.01	<0	.01
Controls		Yes	Yes	Yes	Yes	Yes	Yes
Firm FE		Yes	Yes	Yes	Yes	Yes	Yes
Year FE		Yes	Yes	Yes	Yes	Yes	Yes
S.E. clustered by firm		Yes	Yes	Yes	Yes	Yes	Yes
No. of observations		8514	9335	8261	8298	4453	13628
Adj. R-Squared		0.599	0.673	0.610	0.634	0.593	0.654

Panel C: Cross-sectional tests: Ability to reduce foreign outsourcing

### Table 9 Additional robustness tests

This table presents the additional robustness tests examining the effect of the proposed SEC climate disclosure rule on imports. Panel A shows the results excluding automobile firms. Panel B shows the results after entropy balancing the sample of control firm-years to match the distribution of the sample of treated firm-years, based on the dependent variable in the pre-period and all control variables except for firm size with 0.01 tolerance. In each panel, columns 1-2 (3-4) show the results using *Import Volume/Sale* (*Import Weight/Sale*) as the dependent variable. Columns 1 and 3 include firm and fiscal year fixed effects, and columns 2 and 4 include firm and industry  $\times$  fiscal year fixed effects. The sample consists of firm-year observations from 2018-2022. All variables are defined in Appendix A. The *t*-statistics are reported below coefficient estimates in parentheses and are calculated based on standard errors clustered by firm. \*, \*\*, \*\*\* indicate statistics significance at the 0.10, 0.05, and 0.01 levels, respectively, using a two-tailed *t*-test.

Dependent variable:		Import Vo	olume/Sale	Import W	/eight/Sale
	Pr. Sign	(1)	(2)	(3)	(4)
Treat × Post	-	-0.011***	-0.010***	-0.006***	-0.006**
		(-3.05)	(-2.73)	(-2.65)	(-2.37)
Controls		Yes	Yes	Yes	Yes
Firm FE		Yes	Yes	Yes	Yes
Year FE		Yes	No	Yes	No
Year × Industry FE		No	Yes	No	Yes
S.E. clustered by firm		Yes	Yes	Yes	Yes
No. of observations		17626	17613	17626	17613
Adj. R-Squared		0.707	0.713	0.727	0.732

#### Panel A: Exclude automobile firms

#### Panel B: Entropy balanced matching

Dependent variable:		Import Volume/Sale		Import Weight/Sale	
	Pr. Sign	(1)	(2)	(3)	(4)
Treat × Post	-	-0.023***	-0.022***	-0.015**	-0.014***
		(-2.75)	(-2.95)	(-2.53)	(-2.69)
Controls		Yes	Yes	Yes	Yes
Firm FE		Yes	Yes	Yes	Yes
Year FE		Yes	No	Yes	No
Year × Industry FE		No	Yes	No	Yes
S.E. clustered by firm		Yes	Yes	Yes	Yes
No. of observations		18081	18068	18081	18068
Adj. R-Squared		0.731	0.741	0.732	0.743

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