

Purpose Without Power? The Allocation of Authority in Corporate Leadership

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ABSTRACT

Corporate leadership roles differ in real versus formal authority. Shareholder-oriented roles such as finance typically carry decision rights, whereas newer stakeholder-oriented roles such as ESG or diversity are often advisory. The governance question, therefore, is whether introducing stakeholder-oriented roles reallocates decision rights and who gets assigned to them. Because firms face persistent pressure to diversify leadership, gender provides a useful diagnostic for that allocation. Under a merit benchmark, holding role-relevant competences constant, gender should be orthogonal to role type. I test whether that holds using an individual-level panel of directors and officers constructed from SEC proxy-statement biographies (2015–2024). An LLM-assisted pipeline converts biographies into role-specific human capital (RSHC) measures based on prior relevant background. The data show strong gender segmentation: women are overrepresented in stakeholder-oriented roles and underrepresented in shareholder-oriented roles. RSHC predicts assignment to both role types, but gender asymmetries persist conditional on RSHC. Women with relevant stakeholder-oriented RSHC are more likely to receive stakeholder-oriented appointments, while women with comparable shareholder-oriented RSHC are less likely to receive shareholder-oriented appointments. These asymmetries arise at entry and persist across governance environments. Firms with greater institutional ownership and visibility are more likely to create stakeholder-oriented roles. I find no reliable changes in firm-level outcomes around stakeholder-role introduction, consistent with stakeholder-oriented roles carrying formal rather than real authority.

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LEADERSHIP TITLES HAVE EXPANDED IN RECENT YEARS, but actual roles differ in real versus formal authority (Aghion and Tirole 1997). In most firms, roles that allocate capital, set strategy, and drive policy—shareholder-oriented roles such as the Chief Financial Officer (CFO) or equivalent finance functions—hold real decision rights. Newer, stakeholder-oriented roles—sustainability, ESG, or diversity-related—are often positioned as advisory, representative, or symbolic, reflecting growing pressure on firms to broaden corporate responsibility (Adams 2025). The core governance question is therefore not only who gets leadership titles, but whether the creation of stakeholder-oriented positions actually reallocates decision rights. In this paper, I use “decision rights” and “real authority” in a narrower operational sense: authority to influence resource allocation, operating choices, and firm policies in ways that are likely to affect observable firm outcomes over the short to medium run. This definition leaves open the possibility that stakeholder-oriented roles may still be valuable as external-facing, disclosure, coordination, or legitimacy posts even when they do not carry authority comparable to traditional shareholder-oriented positions. This matters because who holds decision rights shapes capital allocation, risk management, and accountability; if stakeholder-oriented roles carry only formal authority, title expansion can signal responsiveness to external pressure without changing what the firm actually does. It also matters for equity and merit: access to real authority shapes careers and rewards, so if equally qualified women are steered toward lower-authority posts, firms may change who is visible rather than who decides. A natural benchmark is assignment under merit: if firms reward role-specific human capital (RSHC)—a biography-derived measure of role-relevant experience, functional scope, education, training, or certification—and if roles of a given type within a firm carry comparable authority, then, conditional on RSHC and firm context, the distribution of men and women across roles should mirror the distribution of relevant skills.

The connection to gender follows from this benchmark and two theoretical considerations. First, models of labor-market discrimination and social norms imply that when roles carry equal authority and firms reward qualifications equally, gender should not explain assignments beyond differences in relevant skills. Guiso and Rustichini (2018) show that incentives

and culture shape sorting into management, while Bohren et al. (2019) show that discrimination can persist despite formal equality in qualifications. Systematic gender gaps in role assignments, conditional on RSHC, therefore indicate either unequal returns to equivalent skills or differences in authority embedded in roles. Second, if stakeholder-oriented roles carry less real authority than shareholder-oriented roles, disproportionately appointing women to those positions would shift representation without shifting power. Under this logic, gender is a diagnostic for whether new roles grant real authority or instead serve more symbolic functions.

To study these questions, I assemble a person-level panel of directors and officers from SEC DEF 14A proxy statements over 2015–2024. The empirical pipeline combines automated parsing with a large-language-model (LLM)-assisted workflow. First, I extract leadership biographies from proxy statements, standardize names and titles, and map positions to a closed title catalog that separates shareholder-oriented functions (e.g., Chief Financial Officer, Chief Accounting Officer, Treasurer, and related finance roles) from stakeholder-oriented functions (e.g., Chief Sustainability Officer, Chief Diversity Officer, and related ESG-oriented roles). Second, I convert biographies into RSHC using standardized prompts that classify prior roles, responsibilities, education, training, and certifications into stakeholder-oriented and shareholder-oriented experience. A key measurement feature is that current role titles at the given firm are used to identify the observed appointment, but are explicitly excluded from the construction of prior RSHC, so that the qualification measure does not mechanically restate the outcome variable. Third, I apply practical quality controls—regex-based cleaning to remove non-biography sections and corrupted text, context-preserving chunking to handle long filings, and fuzzy matching to reconcile names across filings—to avoid duplicates and ensure consistency. The resulting procedure yields a reproducible person-year measure of domain-relevant human capital that standard governance datasets do not provide.

The empirical analysis follows four linked steps. I begin with the extensive margin and ask which firms create stakeholder-oriented roles in the first place. I then turn to the intensive margin and relate appointment into stakeholder- versus shareholder-oriented roles to RSHC, gender, and their interaction, with firm and year fixed effects and standard firm-level controls. This design tests whether firms sort on the relevant RSHC, whether gender predicts assignment conditional on RSHC, and whether the marginal return to RSHC differs by gender within role types. I complement these estimates with entry models that

focus on first transitions into the given role family, so as to show that the asymmetries arise at the point of appointment rather than simply through persistence or turnover. Because appointment outcomes depend in part on the governance bodies that shape them (Shivdasani and Yermack 1999; Adams et al. 2010; Adams 2025), I also examine whether the gender composition of the board of directors and the nominating committee moderates the observed assignment asymmetries by estimating models separately in female- and male-dominated governance environments. Finally, I study the consequences of introducing stakeholder-oriented roles through post-adoption and staggered event-time designs around each firm's first stakeholder-oriented role introduction, tracking greenhouse gas (Scope 1) emissions intensity scaled by revenue, broad ESG score, and narrower stakeholder-oriented outcome measures. Because role adoption is staggered across firms, the main dynamic specifications use the Sun and Abraham (2021) interaction-weighted estimator, which is designed for heterogeneous treatment effects and avoids the contamination that can arise in conventional two-way fixed-effects event studies when already-treated firms serve as controls for later-treated firms. I also report Callaway and Sant'Anna (2021) robustness checks for the two core firm outcomes. Taken together, these tests allow me to ask whether stakeholder-oriented roles are associated with real organizational change or instead with formal visibility without meaningful authority.

Several results emerge. First, the stock patterns are evident: women account for just over one-fifth of directors and officers overall, yet hold nearly nine out of ten stakeholder-oriented appointments and only about one out of seven shareholder-oriented appointments, while men dominate shareholder-oriented leadership roles. Second, on the extensive margin, firms with greater institutional ownership and characteristics associated with higher visibility are more likely to create stakeholder-oriented roles, suggesting that adoption is systematic rather than idiosyncratic. Third, RSHC strongly predicts assignment to both role types, but the association is economically stronger for shareholder-oriented roles, consistent with firms weighting finance-related expertise more heavily than stakeholder-oriented expertise. Fourth, these disparities are not merely stock effects: entry models show that the same asymmetries appear at the point of appointment. Conditional on RSHC, women are more likely to be allocated to stakeholder-oriented roles and less likely than similarly qualified men to obtain shareholder-oriented roles. These patterns persist across alternative governance environments, including board- and nominating-committee splits by gender composition. Finally,

the outcome evidence does not point to broad, immediate organizational changes following stakeholder-oriented role introduction. Across post-adoption and staggered-adoption event-study designs, I find little evidence of robust short- to medium-run changes in Scope 1 GHG emissions intensity, broad ESG score, or narrower stakeholder-oriented outcome measures. I interpret this pattern as more consistent with limited operating authority over measurable firm policies than with broad decision rights comparable to those attached to traditional shareholder-oriented positions.

This study makes four contributions. First, it maps stakeholder- versus shareholder-oriented roles onto the allocation of authority inside the firm and shows how access to those roles differs systematically by gender. Second, it introduces a scalable, LLM-based measurement strategy that converts proxy-statement biographies into person-year measures of role-specific human capital while explicitly separating current appointments from prior relevant background. Third, it uses RSHC, gender interactions, and entry-margin evidence to test whether comparable qualifications are rewarded equally across role types. Fourth, it links leadership design to firm-level outcomes, showing that title expansion does not by itself imply a reallocation of decision rights. Taken together, the paper provides a framework for tracing roles to authority and for moving the corporate-purpose debate from rhetoric to testable, outcome-based evidence.

I. Data and Methodology

A. Data Sources and Sample Construction

The sample period in this study spans 2015 to 2024. The core data source is the annual proxy statement filed on Securities and Exchange Commission (SEC) Form DEF 14A pursuant to SEC Rule 14a-101. Publicly traded U.S. companies file these statements before annual or special shareholder meetings, and the filings contain the biographies, qualifications, committee assignments, and current roles of directors and executive officers. Because these biographies are firm-authored disclosures filed with the SEC, they provide rich text on the backgrounds, prior responsibilities, and qualifications that firms themselves present as justifying leadership appointments.

This feature makes DEF 14A particularly well suited for the present study. Standard governance databases are useful for names, titles, and board affiliations, but they typically do not preserve the narrative biography text needed to distinguish whether an individual’s prior background is more closely related to stakeholder-oriented mandates, shareholder-oriented mandates, or neither. By contrast, proxy statements contain precisely the contextual information needed to identify both current appointments and the kinds of prior experience that are relevant for those appointments. While essential to investors, proxy statements are a largely overlooked source of data in empirical finance, although several notable papers use these statements for corporate governance research (for example, Pathan 2009; Iliev and Vitanova 2019).

The empirical design begins with a panel of U.S. public firms matched to their DEF 14A filings through the SEC EDGAR system. For each firm-year, I retrieve the filing URL using the firm’s Central Index Key (CIK), download the filing text, and preprocess it before extraction. Preprocessing includes removing HTML markup, deleting sections that are not relevant for biography extraction, standardizing whitespace, and removing corrupted or non-textual blocks. Long filings are then split into manageable chunks for structured parsing.

I use a large language model (LLM) to extract structured information from these biographies in a tightly constrained, two-step workflow. In the first step, the model codes each individual’s current-year appointment, current title, board/officer status, and selected governance attributes such as committee memberships and chair positions. In the second step, the model codes the person’s prior appointment-relevant background, separately for stakeholder-

oriented and shareholder-oriented domains. A crucial design feature is that the second step explicitly excludes the individual’s current role at the given firm from the background coding. Thus, if a person is currently the Chief Sustainability Officer, that current title is allowed to identify the observed stakeholder-oriented appointment, but it is not allowed to count as evidence of prior relevant background. This separation is important because it prevents mechanical bias from the current appointment into the qualification measure that later enters the regressions.

The extraction is implemented through the OpenAI batch API, which allows large numbers of filings to be processed systematically and stored in structured JSONL outputs. Chunk-level outputs are then merged using conservative rules, and the resulting person-year observations are deduplicated into a single analysis panel. I complement the proxy-statement data with Compustat fundamentals, Jay Ritter’s IPO-age data for firm-age construction, Trucost emissions data for greenhouse-gas outcomes, S&P Global ESG data for ESG and related stakeholder outcomes, and institutional ownership data derived from 13F-style holdings. Missing CIK identifiers are supplemented using standard crosswalk procedures following Spamann and Wilkinson (2019).

The final analysis sample contains roughly 570,000 individual-firm-year observations, covering about 63,000 firm-year observations and about 9,500 unique firms. The exact number varies slightly across specifications because some models require non-missing controls or outcome variables, but the core person-year panel is built from the full set of parsed director and officer biographies.

B. Key Variable Choices and Definitions

The main unit of observation in the individual-level analysis is the individual-firm-year. Each observation corresponds to a company board of directors member, an officer, or an individual who simultaneously serves as both. I distinguish these roles because the paper’s question, among others, is not only who is appointed, but also what kind of authority is attached to the role into which they are appointed.

I classify current-year role assignments into two broad families. The first consists of stakeholder-oriented leadership roles, meaning roles whose primary mandate concerns non-financial stakeholder objectives such as sustainability, ESG, climate, diversity and inclusion,

ethics and compliance, public affairs, safety, or closely related domains. The second consists of shareholder-oriented leadership roles, meaning leadership roles with finance-oriented authority, such as Chief Financial Officer, Chief Accounting Officer, Treasurer, and closely related CFO-family or senior finance positions. This distinction is deliberate. The paper is not contrasting “ESG” to leadership in general; it is contrasting stakeholder-oriented roles to a sharper benchmark of roles that are traditionally closer to budgetary, financial, and decision authority.

The paper’s main explanatory variable is role-specific human capital (RSHC). RSHC is a biography-derived measure of whether an individual’s prior background is specifically relevant to the mandate of the role family under study. I construct two variants: stakeholder-oriented RSHC equals one if the biography provides evidence of prior experience, prior responsibilities, education, training, or certification relevant to stakeholder-oriented domains such as sustainability, climate, ESG, DEI, ethics/compliance, public affairs, or safety/EHS, and zero otherwise; likewise, shareholder-oriented RSHC equals one if the biography provides evidence of prior experience, prior responsibilities, education, training, or certification relevant to finance-related domains such as accounting, audit, treasury, investing, banking, strategy, or finance leadership, and zero otherwise.

In both cases, the coding is based on prior background as described in the biography, not on the person’s current title at the firm. That design choice directly addresses the measurement concern that otherwise the qualification proxy could simply restate the observed appointment. Put differently, the current role is used to identify the outcome variable, while prior background is used to identify the explanatory variable.

The two main individual-level dependent variables are the current-year role indicators. Stakeholder-Oriented Role Assignment equals one if the individual currently holds a stakeholder-oriented leadership role in year t , and zero otherwise. Shareholder-Oriented Role Assignment equals one if the individual currently holds a shareholder-oriented leadership role in year t , and zero otherwise. In the entry specifications, I convert these stock measures into flow measures by asking whether an individual who did not hold the given role in year $t - 1$ enters it in year t .

The analysis focuses on gender as the primary demographic dimension. This choice is both conceptual and practical. Conceptually, the paper asks whether authority is allocated differently to women and men across stakeholder-oriented versus shareholder-oriented leader-

ship roles. Empirically, proxy statements permit relatively consistent coding of gender from names, pronouns, and biography text, whereas they do not provide equally reliable or standardized information on other demographic characteristics such as ethnicity or nationality. Extending the analysis to other demographics with the same data source would introduce much more measurement error than signal. The paper therefore treats gender as the focal dimension of unequal allocation, not as the only potentially relevant one.

To capture the governance environment in which appointments occur, I also construct firm-year indicators for whether the board and, separately, the nominating committee are female-dominated. A board (or nominating committee) is classified as female-dominated when women account for a majority of its members in a given firm-year; the complementary category is male-dominated. I use these indicators in heterogeneity analyses to test whether the main assignment patterns depend on the gender composition of the governance bodies most directly involved in oversight and appointments. This allows me to assess whether the documented asymmetries are concentrated in particular organizational environments or instead persist across different governance contexts.

At the firm level, the main outcome variables are designed to test whether introducing a stakeholder-oriented role is associated with measurable organizational change. The core environmental outcome is Scope 1 greenhouse gas (GHG) emissions intensity, scaled by revenue.¹ The broad stakeholder outcome I use is the S&P Global ESG Score, which is a composite measure of a firm's performance on and management of material environmental, social, and governance risks, opportunities, and impacts. The score is constructed using company disclosures together with media and stakeholder analysis, modeling inputs, and the S&P Global Corporate Sustainability Assessment, which relies on industry-specific questionnaires. I also use a set of narrower stakeholder-oriented outcomes from the extended S&P ESG data, including Environmental Reporting, Stakeholder Engagement, Climate Governance, and Environmental Violations. For full variable definitions, please consult [Appendix A](#), Table AI.

¹Scope 1 GHG emissions are direct emissions from sources owned or controlled by the firm, such as on-site fuel combustion, company vehicles, and industrial processes.

C. Empirical Methodology

I first examine the extensive margin—which firms create stakeholder-oriented leadership roles in the first place. I then turn to the intensive margin—who gets these roles conditional on their existence. Next, I isolate whether the same asymmetries arise at entry into the role family rather than merely through persistence. Finally, I test whether introducing stakeholder-oriented roles is followed by measurable changes in firm-level outcomes.

The first question is why firms announce stakeholder-oriented roles at all. To address that question, I construct a firm-year adoption panel in which the dependent variable equals one in the first year a firm introduces a stakeholder-oriented role and zero otherwise. I estimate linear probability models of the form:

$$Adopt_{kt} = \alpha + \beta' X_{k,t-1} + \delta_t + \eta_s + \epsilon_{kt}$$

where $Adopt_{kt}$ is an indicator for first adoption by firm k in year t ; $X_{k,t-1}$ is a vector of lagged firm characteristics; δ_t are year fixed effects, and η_s are industry fixed effects.

The adoption models use year and industry fixed effects, rather than firm fixed effects, because the estimand is the extensive-margin question of which firms adopt. Adoption is an absorbing first-event design, and using firm fixed effects in this context would force identification to come only from within-firm fluctuations around a one-time transition while differencing out much of the cross-firm variation that is central to the adoption question itself. I therefore treat adoption as a firm-level risk-set comparison among firms that have not yet adopted. As a robustness check, I also estimate logit specifications, reported in [Appendix B](#), Table [BI](#). The lagged controls include firm size, leverage, profitability, institutional ownership, and lagged stakeholder-salience variables such as ESG score and GHG intensity.

The second question is who gets stakeholder-oriented versus shareholder-oriented roles, conditional on having relevant qualifications. At the individual level, I estimate linear prob-

ability models of the form:

$$\begin{aligned}
 StakeholderRole_{ikt} &= \alpha + \beta_1 RSHC_{it}^S + \beta_2 Female_i + \beta_3 (RSHC_{it}^S \times Female_i) + \theta' X_{k,t-1} \\
 &\quad + \gamma_k + \delta_t + \varepsilon_{ikt}, \\
 ShareholderRole_{ikt} &= \alpha + \beta_1 RSHC_{it}^F + \beta_2 Female_i + \beta_3 (RSHC_{it}^F \times Female_i) + \theta' X_{k,t-1} \\
 &\quad + \gamma_k + \delta_t + \varepsilon_{ikt}.
 \end{aligned}$$

where i indexes individuals, k firms, and t years; $RSHC_{it}^S$ and $RSHC_{it}^F$ denote stakeholder-oriented and shareholder-oriented prior human capital, respectively; $Female_i$ is the gender indicator; $X_{k,t-1}$ is the vector of lagged firm controls; γ_k are firm fixed effects; and δ_t are year fixed effects.

These models test two distinct ideas. First, β_1 captures whether individuals with relevant role-specific human capital are more likely to be assigned to the corresponding role family. Second, β_3 tests whether comparable qualifications are rewarded equally across genders. This interaction is central to the paper's merit-versus-assignment argument. I do not use individual fixed effects in these baseline allocation models because the core variables of interest—gender and most of the prior-human-capital indicators—are largely time-invariant at the individual level. An individual fixed-effects design would therefore absorb the main sources of variation needed to estimate the relationship between gender, qualifications, and role assignment. Instead, I cluster standard errors at the individual level to account for repeated observations of the same person over time.

Next, in order to distinguish appointment decisions from persistence or turnover, I estimate entry models that focus on transitions into each role family. Specifically, I restrict the sample to individuals observed in two consecutive years who did not hold the given role in year $t - 1$, and I define:

$$\begin{aligned}
 EntryStakeholder_{ikt} &= \mathbb{1} \{ StakeholderRole_{ik,t-1} = 0, StakeholderRole_{ikt} = 1 \}, \\
 EntryShareholder_{ikt} &= \mathbb{1} \{ ShareholderRole_{ik,t-1} = 0, ShareholderRole_{ikt} = 1 \}.
 \end{aligned}$$

I then regress these entry indicators on the corresponding role-specific human-capital measure, $Female$, their interaction, lagged firm controls, and the same firm and year fixed effects as in the baseline allocation models. This design asks whether the documented asymmetries

arise at the moment of assignment rather than reflecting effects from role persistence. That distinction matters because the paper’s central claim concerns the allocation of authority, not merely the stock of people currently occupying different roles.

Subsequently, I assess whether the main allocation patterns depend on organizational context. I thus re-estimate the allocation models in subsamples defined by the gender composition of the board and the nominating committee. In particular, I compare female-dominated and male-dominated governance environments. The objective of this robustness check is not to claim a precise mechanism, but to verify whether the documented asymmetries are confined to clearly male-dominated settings or are more pervasive.

Finally, I examine whether introducing a stakeholder-oriented role is associated with meaningful changes in firm-level outcomes. I do so in two complementary ways. First, I estimate average post-adoption effects using two-way fixed-effects specifications of the form:

$$Outcome_{k,t+1} = \beta PostAdoption_{kt} + \theta' X_{k,t-1} + \gamma_k + \delta_t + \varepsilon_{kt}.$$

where $Outcome_{k,t+1}$ is the next-year firm outcome; $PostAdoption_{kt}$ equals one in years after the firm first introduces a stakeholder-oriented role; γ_k are firm fixed effects; and δ_t are year fixed effects. The use of next-year outcomes allows time for organizational responses to role introduction to appear in observable firm-level metrics. Second, because adoption is staggered across firms, I estimate dynamic event studies using the Sun and Abraham (2021) interaction-weighted estimator. This is important because conventional two-way fixed-effects event studies can be biased under staggered treatment timing. The Sun and Abraham (2021) design compares treated firms only to never-treated or not-yet-treated firms, yielding a more credible dynamic treatment profile around the first stakeholder-oriented role introduction. I apply this outcome design to three sets of variables: (i) Scope 1 GHG intensity, (ii) broad ESG score, (iii) narrower stakeholder-oriented subdimensions from the extended S&P ESG data. These event-study specifications are informative about the dynamic association between stakeholder-oriented role introduction and subsequent firm outcomes, but they should not be interpreted as fully causal without qualification. The identifying assumptions underlying staggered-adoption designs include no anticipation and parallel trends, and these assumptions may be imperfect in the present setting because firms likely adopt stakeholder-oriented roles in response to evolving internal or external conditions. I therefore interpret

the event-study evidence as showing whether stakeholder-oriented role introduction is followed by detectable changes in the outcomes studied, rather than as definitively isolating the causal effect of role introduction itself. As an additional robustness check, I also re-estimate the two core post-adoption outcome specifications using the staggered-adoption framework of Callaway and Sant’Anna (2021). In those appendix specifications, I focus on the two headline outcomes—Scope 1 GHG intensity and broad ESG score—and use the full preferred control set consisting of firm size, book leverage, ROA, and institutional ownership. I implement the estimator with regression adjustment and never-treated firms as controls. This choice is practical and deliberate: in the present data, the regression-adjustment version supports the full preferred control set more stably than the doubly robust implementation, while preserving the same substantive comparison of treated firms to untreated firms over time. I therefore use Sun and Abraham (2021) as the main event-study specification and Callaway–Sant’Anna (2021) as a double-check that the core conclusions are not estimator-specific.

Overall, this sequence of designs maps directly onto the paper’s core questions: who creates stakeholder-oriented roles, who gets appointed to them, when do these asymmetries arise, and whether these roles subsequently appear to have real consequences for firm outcomes.

II. Results

A. Gender Segmentation in Stakeholder- and Shareholder-Oriented Role Appointments

Table I presents the descriptive pattern that motivates the paper. It reports the gender composition of (i) all directors and officers in the sample, (ii) stakeholder-oriented (ESG-related) leadership roles, and (iii) shareholder-oriented (finance-related) leadership roles.

[Insert Table I about here.]

Women remain substantially underrepresented in leadership overall: they account for 20.8% of director- and officer-year observations in the sample. This is consistent with the broader literature documenting the limited representation of women in senior corporate positions (e.g., Adams and Ferreira 2009; Adams and Kirchmaier 2016; Carter et al. 2010). At the same time, the distribution of women across role types is sharply uneven. Within stakeholder-oriented (ESG-related) leadership roles, women account for 88.9% of the appointments; by contrast, within shareholder-oriented (finance-related) leadership roles, women account for only 14.1% of the appointments. Thus, women are not merely underrepresented in leadership overall; they are also disproportionately concentrated in stakeholder-oriented roles and disproportionately absent from shareholder-oriented roles. To highlight that this segmentation is neither time- nor sector-specific, Figure 1 plots the annual counts of stakeholder- and shareholder-oriented role appointments by gender, while Figure 2 reports the corresponding sectoral breakdown.

[Insert Figure 1 about here.]

[Insert Figure 2 about here.]

The same pattern is visible throughout the sample period. In every year, men overwhelmingly dominate shareholder-oriented (finance-related) roles, whereas women account for the large majority of stakeholder-oriented (ESG-related) appointments. The time-series evidence also suggests that the expansion of stakeholder-oriented roles over time has been driven disproportionately by appointments of women rather than men. The sectoral evidence points in the same direction. Across sectors, men hold far more shareholder-oriented roles

than women, while women are more prevalent in stakeholder-oriented roles. This contrast is particularly visible in sectors such as Financials, Health Care, Industrials, and IT, indicating that the pattern is broad rather than confined to a narrow set of industries.

These descriptive facts do not, by themselves, establish whether the observed segmentation reflects differences in role-specific human capital, differential returns to comparable qualifications, or differences in the authority embedded in the roles themselves. They do, however, motivate the empirical tests that follow. The next subsection therefore turns first to the extensive margin and asks which firms introduce stakeholder-oriented leadership roles in the first place.

B. Extensive Margin: Adoption of Stakeholder-Oriented Leadership Roles

Before studying who is appointed into stakeholder-oriented roles, it is useful to ask which firms introduce such roles at all. Table II examines the extensive margin by estimating first-adoption models for stakeholder-oriented leadership roles. The dependent variable equals one in the first year in which a firm introduces a stakeholder-oriented role, conditional on not having adopted previously.

[Insert Table II about here.]

Column (1) reports a baseline specification with lagged firm size, leverage, and profitability, together with year and industry fixed effects. Larger firms are more likely to adopt stakeholder-oriented roles: the coefficient on firm size is positive and statistically significant. By contrast, leverage and profitability are economically negligible in the baseline specification. Column (2) adds lagged institutional ownership. Institutional ownership enters positively and significantly, suggesting that firms with greater institutional investor presence are more likely to introduce stakeholder-oriented leadership roles. This pattern is consistent with the view that adoption is related to monitoring, external pressure, or stakeholder-facing governance demands. Column (3) adds lagged ESG score and GHG intensity. The coefficient on institutional ownership remains positive and statistically significant, whereas the lagged ESG score and lagged GHG intensity are not statistically distinguishable from zero in this specification. Taken together, the results suggest that adoption is more strongly associated with firm size and investor ownership than with the firm's prior ESG score or emissions intensity, at least in this reduced-form setting. These estimates should be interpreted as

correlates of adoption rather than as causal effects. This distinction is important. The extensive-margin analysis is included to address the selection concern of why firms create stakeholder-oriented roles at all. The evidence here suggests that adoption is not random. Rather, it is systematically related to observable firm characteristics, especially institutional ownership, which is consistent with stakeholder-management, legitimacy, disclosure, or coordination motives even when later outcome effects prove limited.

As a robustness check, [Appendix B Table BI](#) re-estimates the adoption models using logit specifications. The signs and substantive conclusions remain unchanged, with institutional ownership continuing to be positively associated with adoption.

Having established which firms are more likely to adopt stakeholder-oriented roles, I next turn to the intensive margin: conditional on such roles existing, who gets appointed into them, and how does role-specific human capital map into assignment across genders?

C. Intensive Margin: Role-Specific Human Capital, Gender, and Role Assignment

[Table III](#) examines whether stakeholder- and shareholder-oriented role assignments are associated with role-specific human capital (RSHC), gender, and the interaction between the two. Columns (1) and (2) report the stakeholder-oriented role specifications; columns (3) and (4) report the shareholder-oriented role specifications. The baseline columns include the main variables of interest and fixed effects, while the full-control columns additionally include lagged firm-level controls, institutional ownership, and lagged ESG salience measures.

[Insert Table III about here.]

The first result is that relevant RSHC is positively associated with assignment into both role families. In columns (1) and (2), stakeholder-oriented RSHC is positive and statistically significant at the 1% level. In columns (3) and (4), shareholder-oriented RSHC is likewise positive and statistically significant at the 1% level. Thus, qualifications that are specific to a role's mandate are meaningfully related to assignment into that role. At the same time, the shareholder-oriented coefficients are economically larger than the stakeholder-oriented coefficients, indicating that comparable role-specific qualifications are more strongly associated with appointments into shareholder-oriented than stakeholder-oriented positions. The

second result concerns gender asymmetry. In the stakeholder-oriented specifications, the coefficient on *Female* is positive and highly significant, indicating that women are more likely than men to be assigned to stakeholder-oriented roles. Moreover, the interaction between stakeholder-oriented RSHC and *Female* is also positive and statistically significant in both the baseline and full-control specifications. This pattern implies that women are not only more likely to be assigned to stakeholder-oriented roles on average, but that stakeholder-oriented qualifications are associated with especially strong assignment into such roles for women.

The shareholder-oriented specifications show a different pattern. Shareholder-oriented RSHC remains strongly and positively related to shareholder-oriented role assignment, but the gender terms do not mirror the stakeholder-oriented case one-for-one. The coefficient on *Female* is negative but statistically insignificant at conventional significance levels in both columns, indicating no robust baseline gender difference once the fixed effects structure is imposed. However, in the full-control specification, the interaction between shareholder-oriented RSHC and *Female* is negative and statistically significant. This indicates that even when women possess comparable shareholder-oriented RSHC, the association between those qualifications and assignment into shareholder-oriented roles is weaker for women than for men. Put differently, the returns to relevant shareholder-oriented qualifications appear lower for women than for otherwise similar men.

These results are central to the paper's argument. The evidence does not suggest that women are simply less qualified for shareholder-oriented roles or more qualified for stakeholder-oriented roles in a mechanical sense. Instead, it suggests asymmetric allocation conditional on relevant qualifications: stakeholder-oriented RSHC is especially strongly associated with women's assignment into stakeholder-oriented roles, while shareholder-oriented RSHC translates less strongly into shareholder-oriented assignments for women than for men.

To assess whether these patterns are confined to either the board or officer subsamples, Table BII in [Appendix B](#) re-estimates the main interaction models separately for directors and officers. The stakeholder-oriented interaction remains positive in both subsamples. On the shareholder-oriented side, the negative interaction is more pronounced among directors and weaker among officers, suggesting that the central asymmetry is not exclusively driven by one segment of the sample, though its strength varies across organizational positions. In a similar spirit, I examine whether the main assignment patterns vary with governance

context by re-estimating the allocation specifications separately by board and nominating-committee gender composition. The Table [BIII](#) in [Appendix B](#) results shows that the qualitative pattern remains intact across environments. Across both female-dominated and male-dominated boards and nominating committees, women remain more strongly associated with stakeholder-oriented appointments, especially conditional on stakeholder-oriented RSHC, while women with comparable shareholder-oriented RSHC remain less likely to receive shareholder-oriented appointments. Thus, the central asymmetry documented in the main analysis is not confined to a single governance setting, but persists across alternative governance environments.

Taken together, the intensive-margin evidence therefore points to a gendered allocation process rather than a simple merit-sorting story. The next step is to ask whether these role assignments occur primarily at entry into roles or instead reflect persistence within roles once assigned.

D. Entry into Stakeholder- and Shareholder-Oriented Roles

Table [IV](#) examines whether the allocation patterns documented above arise specifically at the moment of entry into a certain role type. To do so, I restrict the sample to individuals observed in two consecutive years who did not hold a certain role in year $t - 1$, and I estimate whether they enter that role in year t .

[Insert Table [IV](#) about here.]

The results indicate that the gender asymmetries are not driven solely by persistence in previously held roles; they are already visible at entry. In columns (1)–(2), entry into stakeholder-oriented roles is positively associated with stakeholder-oriented RSHC, and women are more likely than men to enter such roles. The interaction between stakeholder-oriented RSHC and *Female* is also positive and statistically significant, indicating that women with relevant stakeholder-oriented human capital are especially likely to be channeled into stakeholder-oriented roles. This pattern remains present when lagged firm controls, institutional ownership, and lagged ESG salience measures are added. Columns (3)–(4) show the corresponding estimates for entry into shareholder-oriented roles. Shareholder-oriented RSHC is again a strong positive predictor of entry, but the gender pattern differs. The interaction between

shareholder-oriented RSHC and *Female* is negative, indicating that comparable shareholder-oriented qualifications translate into weaker entry prospects for women than for men in the shareholder-oriented role family. Thus, the core asymmetry identified earlier is not merely a stock effect reflecting who already occupies these positions; it also characterizes the flow into them.

Because the dependent variable in Table IV is an entry event, the coefficients are mechanically smaller in absolute value than in the broader allocation specifications. The key point is therefore not the raw magnitude, but the direction and significance of the interaction terms. Taken together, Table IV shows that the observed segmentation of women into stakeholder-oriented roles and men into shareholder-oriented roles emerges already at the point of appointment itself. This distinction is important for the paper’s interpretation. If the asymmetry appeared only in stock measures, it could reflect differences in tenure, turnover, or legacy appointments. Instead, the entry results indicate that the asymmetry is embedded in contemporaneous assignment decisions.

E. Stakeholder-Oriented Role Introduction and Core Firm Outcomes

I next turn from who gets assigned to the stakeholder-oriented roles to what happens after firms create them. This is the central empirical test of whether these roles are associated with substantive changes in firm behavior or rather serve a more symbolic role. Table V reports post-adoption estimates for two core firm outcomes: next-period GHG emissions intensity and next-period ESG score.

[Insert Table V about here.]

In Table V, the coefficient on *Post Adoption* is small and statistically indistinguishable from zero across all specifications for both the GHG intensity and the ESG score. Thus, on average, the introduction of a stakeholder-oriented role is not followed by a measurable improvement in either emissions intensity or the aggregate ESG score. Because firms adopt stakeholder-oriented roles in different years, I complement these average post-adoption estimates with dynamic event-study evidence using the Sun and Abraham (2021) interaction-weighted estimator, which is designed for staggered adoption settings. Figure 3 plots the dynamic response of the GHG intensity around the first stakeholder-oriented role introduction, while Figure 4 does the same for the ESG score.

[Insert Figure 3 about here.]

[Insert Figure 4 about here.]

The event-study estimates reinforce the table results. For GHG intensity, the post-introduction coefficients remain close to zero and are not statistically distinguishable from zero across the post-treatment horizon. For ESG score, the estimates also do not indicate a sharp improvement immediately following adoption. Although the later-horizon coefficients become somewhat more positive, the pattern is gradual rather than discontinuous, and it is not mirrored by a robust average post-adoption effect in Table V. Accordingly, I do not interpret these later-horizon movements as strong evidence that stakeholder-oriented role creation materially changes the firm’s environmental or ESG performance. A lack of immediate movement in these outcomes should not be interpreted too strongly. In stakeholder-oriented domains, decisions may plausibly affect the firm with longer lags than decisions in finance-oriented roles, and some stakeholder-oriented roles may be valuable primarily through disclosure, coordination, investor relations, or external legitimacy rather than through direct short-run operational change. For that reason, I do not interpret the absence of robust short-run outcome effects as proof that these roles never matter. Rather, I interpret it more narrowly as evidence that stakeholder-oriented role introduction is not, on average, followed by broad and clearly measurable short- to medium-run changes in the core firm outcomes examined here. Figure B1 and Figure B2, together with Table BIV from Appendix B, report the corresponding Callaway–Sant’Anna (2021) robustness estimates for the two core outcomes using the full preferred control set. The results are consistent with the main event-study evidence. For GHG intensity, the estimated post-adoption effect remains small relative to its uncertainty and statistically indistinguishable from zero. For ESG score, the average post-adoption effect is likewise economically modest and statistically indistinguishable from zero once the full control set—including institutional ownership—is imposed. Taken together, Table V and Figures 3–4 suggest that firms do not experience clear, immediate, or sustained improvements in the core outcomes most closely related to the stated mandate of stakeholder-oriented roles. This result is consistent with the view that such roles often carry formal visibility but limited real authority. That interpretation should be read carefully. The evidence does not imply that every stakeholder-oriented role is purely symbolic, nor that such roles are never consequential. Rather, at the average firm-year level in this sample, their introduction is not associated with detectable changes in the core firm outcomes

examined here. Under that interpretation, the outcome evidence complements the allocation results. The core finding of the paper is not that stakeholder-oriented roles are irrelevant, but that women are disproportionately allocated into them conditional on relevant human capital, while men remain more likely to occupy shareholder-oriented roles more closely tied to traditional operating and financial authority. The limited short-run outcome response is therefore consistent with the view that stakeholder-oriented posts often carry less direct operating authority than shareholder-oriented positions, even if they may still perform important representational or coordination functions. This is the kind of pattern one would expect if many such roles are created without being routinely granted decision rights comparable to those attached to more traditional shareholder-oriented positions.

One possible concern with the null results above is that aggregate ESG score and GHG intensity may be too broad to capture narrower changes in stakeholder-oriented domains. To address that concern, Table VI examines a set of more specific outcome variables drawn from the extended data: Environmental Reporting, Stakeholder Engagement, Climate Governance, and Environmental Violations.

[Insert Table VI about here.]

The results remain strikingly consistent. Across all expanded-outcome specifications, the coefficient on *Post Adoption* is statistically indistinguishable from zero. Thus, the absence of detectable post-adoption change is not limited to broad aggregate outcomes; it also extends to narrower dimensions that should, in principle, be especially relevant for stakeholder-oriented mandates.

These results strengthen the paper's central claim. Firms do appear to create stakeholder-oriented roles, and women are disproportionately appointed into them, but the introduction of these roles is not followed by the kind of outcome changes one would expect if they were routinely endowed with substantial operating authority. Read together with the allocation results, the expanded-outcome evidence is consistent with a pattern of *purpose without power*: firms create visible stakeholder-oriented roles, but these roles do not, on average, appear to command the level of authority necessary to change firm behavior in measurable ways.

III. Conclusions

This paper documents a systematic gender imbalance in the allocation of top managerial roles. Women are disproportionately appointed to stakeholder-oriented positions, whereas men continue to dominate shareholder-oriented positions. This imbalance survives conditioning on relevant qualifications. Although stakeholder- and shareholder-oriented role-specific human capital (RSHC) are both rewarded in the corresponding role assignments, women with relevant stakeholder-oriented RSHC are more likely than otherwise comparable men to be appointed to stakeholder-oriented roles, while women with comparable shareholder-oriented RSHC remain less likely to be appointed to shareholder-oriented roles.

I then show that this pattern is embedded in the broader process through which authority is structured inside the firm. On the extensive margin, firms with characteristics associated with greater visibility and external pressure are more likely to create stakeholder-oriented roles in the first place. On the intensive margin, the assignment of individuals into those roles is sharply gendered conditional on qualifications. The same qualitative asymmetry appears in entry specifications, indicating that the pattern arises at the point of appointment rather than merely through persistence in previously held roles. It also persists across alternative governance environments, including board- and nominating-committee splits by gender composition.

Finally, I ask whether the introduction of stakeholder-oriented roles is followed by meaningful organizational change. Across post-adoption specifications and staggered-adoption event studies, I find little evidence that introducing these roles leads to robust changes in core outcomes such as Scope 1 GHG emissions intensity, broad ESG score, or narrower stakeholder-oriented outcome measures. This outcome evidence should be interpreted cautiously. I do not find broad and robust short- to medium-run changes in the core firm outcomes studied following stakeholder-oriented role introduction. That pattern is more consistent with limited direct operating authority over measurable firm policies than with decision rights comparable to those attached to traditional shareholder-oriented roles, even though stakeholder-oriented posts may still provide disclosure, coordination, legitimacy, or investor-facing value. The broader implication is that progress in representation at the top of the firm cannot be assessed only by who receives leadership titles; it must also be assessed by which roles carry actual authority. In that sense, the evidence points to a persistent

pattern of *purpose without power*.

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Figures

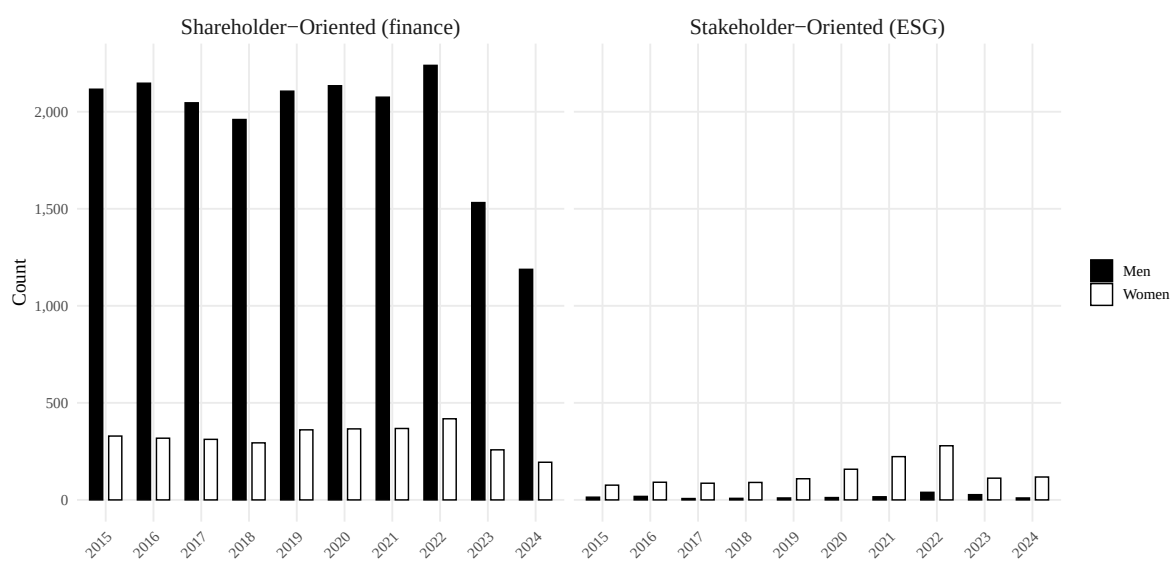


Figure 1. Counts of shareholder- and stakeholder-oriented leadership roles by year and gender.

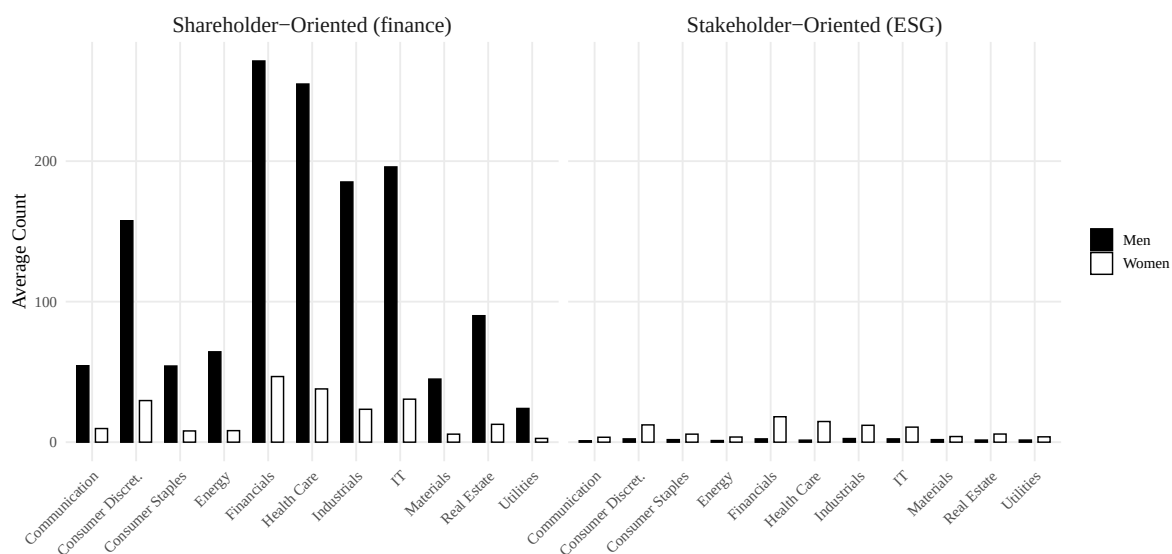


Figure 2. Counts of shareholder- and stakeholder-oriented leadership roles by sector and gender.

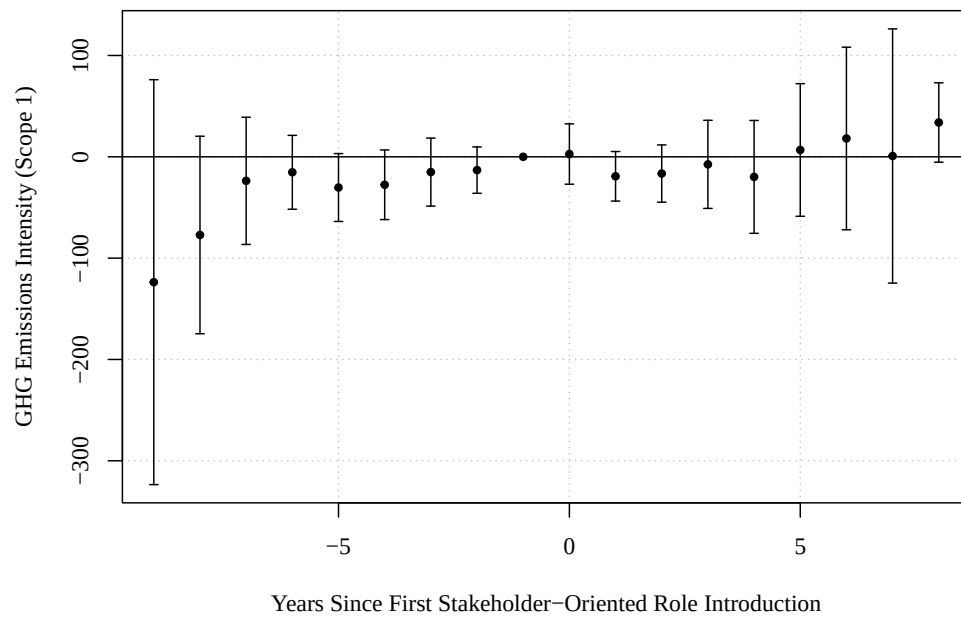


Figure 3. GHG Intensity Around Stakeholder-Oriented (ESG) Role Introduction (with Sun & Abraham (2021) adjustment).

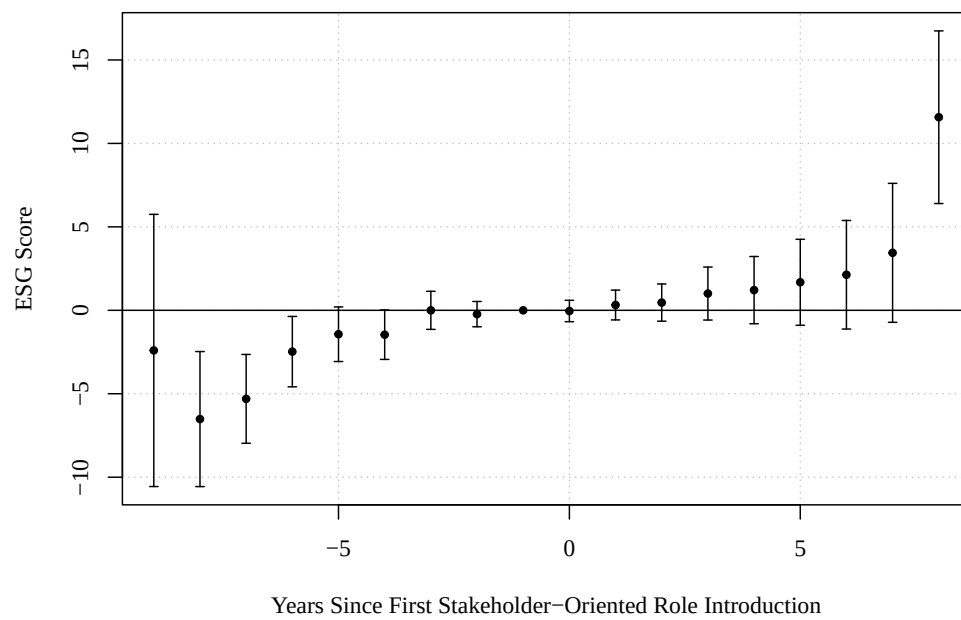


Figure 4. ESG Score Around Stakeholder-Oriented (ESG) Role Introduction (with Sun & Abraham (2021) adjustment).

Tables

Table I. Summary statistics for stakeholder- and shareholder-oriented leadership roles by gender.

Category	Count		
	Total Board Members & Officers	Stakeholder-Oriented (ESG) Role	Shareholder-Oriented (Finance) Role
Women	118,789 (20.8%)	1,491 (88.9%)	3,218 (14.1%)
Men	451,458 (79.2%)	186 (11.1%)	19,543 (85.9%)
All	570,247 (100.0%)	1,677 (100.0%)	22,761 (100.0%)

Note: This table reports counts of directors and officers overall, counts in stakeholder-oriented (ESG) leadership roles, and counts in shareholder-oriented (finance) leadership roles, split by gender. Percentages are shares of each column total. Observations with missing gender are excluded.

Table II. Adoption of stakeholder-oriented leadership roles.

	(1)	(2)	(3)
Dependent Variable:	Adopt _t	Adopt _t	Adopt _t
Firm Size (t-1)	0.0018*** (0.0002)	0.0005* (0.0003)	0.0013 (0.0009)
Book Leverage (t-1)	0.0000 (0.0000)	-0.0000 (0.0000)	0.0014 (0.0062)
ROA (t-1)	-0.0000 (0.0000)	-0.0000 (0.0001)	-0.0020 (0.0082)
Institutional Ownership (t-1)		0.0228*** (0.0017)	0.0270*** (0.0029)
GHG Intensity (t-1)			-0.0000 (0.0000)
ESG Score (t-1)			-0.0000 (0.0001)
Fixed Effects:			
Firm	No	No	No
Year	Yes	Yes	Yes
Industry	Yes	Yes	Yes
Clustered SE	Firm	Firm	Firm
Observations	57,380	38,908	14,700
R ²	0.0045	0.0088	0.0139
Within R ²	0.0016	0.0048	0.0050

Note: This table reports first-adoption models for stakeholder-oriented leadership roles. The dependent variable equals one in the first year in which a firm introduces a stakeholder-oriented role, conditional on not having adopted previously. Column (1) reports the baseline specification. Column (2) adds institutional ownership. Column (3) further adds lagged ESG score and GHG intensity. All specifications include year and industry fixed effects and cluster standard errors at the firm level. Standard errors are reported in parentheses. Asterisks indicate $p < 0.01$ (***), $p < 0.05$ (**), and $p < 0.1$ (*).

Table III. Stakeholder- and shareholder-oriented role assignments and gender.

	Stakeholder-oriented Roles		Shareholder-oriented Roles	
	(1)	(2)	(3)	(4)
Specification:	Baseline	Full Controls	Baseline	Full Controls
Stakeholder-oriented RSHC	0.0009*** (0.0002)	0.0009*** (0.0003)		
Shareholder-oriented RSHC			0.0647*** (0.0020)	0.0561*** (0.0018)
Female	0.0096*** (0.0015)	0.0086*** (0.0009)	-0.0031 (0.0024)	-0.0017 (0.0011)
Stakeholder-oriented RSHC $\times$ Female	0.0187*** (0.0019)	0.0244*** (0.0022)		
Shareholder-oriented RSHC $\times$ Female			-0.0046 (0.0030)	-0.0210*** (0.0026)
Firm Size (t-1)		-0.0006 (0.0008)		-0.0083*** (0.0027)
Book Leverage (t-1)		0.0053** (0.0024)		0.0042 (0.0077)
ROA (t-1)		0.0043** (0.0018)		-0.0017 (0.0057)
Institutional Ownership (t-1)		0.0024 (0.0019)		0.0062 (0.0056)
GHG Intensity (t-1)		0.0000 (0.0000)		0.0000 (0.0000)
ESG Score (t-1)		0.0001 (0.0000)		-0.0001 (0.0001)
Fixed Effects:				
Firm	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes
Clustered SE	Individual	Individual	Individual	Individual
Observations	485,737	131,177	445,196	121,273
R ²	0.0438	0.0534	0.0615	0.0567
Within R ²	0.0163	0.0203	0.0189	0.0173

Note: Columns (1)-(2) estimate stakeholder-oriented role assignment on stakeholder-oriented RSHC, *Female*, and their interaction. Columns (3)-(4) estimate shareholder-oriented role assignment on shareholder-oriented RSHC, *Female*, and their interaction. Columns (2) and (4) add lagged firm controls, institutional ownership, and lagged ESG salience variables. All models include firm and year fixed effects and cluster standard errors at the individual level. Standard errors are reported in parentheses. Asterisks indicate $p < 0.01$ (***), $p < 0.05$ (**), and $p < 0.1$ (*).

Table IV. Entry into stakeholder- and shareholder-oriented leadership roles.

	Entry to Stakeholder Role		Entry to Shareholder Role	
	(1)	(2)	(3)	(4)
Specification:	Baseline	Full Controls	Baseline	Full Controls
Stakeholder-oriented RSHC	0.0003** (0.0001)	0.0002 (0.0002)		
Shareholder-oriented RSHC			0.0030*** (0.0004)	0.0023*** (0.0007)
Female	0.0043*** (0.0005)	0.0036*** (0.0008)	-0.0018*** (0.0004)	-0.0010 (0.0007)
Stakeholder-oriented RSHC $\times$ Female	0.0074*** (0.0011)	0.0115*** (0.0020)		
Shareholder-oriented RSHC $\times$ Female			0.0010 (0.0007)	-0.0016* (0.0009)
Firm Size (t-1)		-0.0004 (0.0007)		0.0001 (0.0014)
Book Leverage (t-1)		0.0007 (0.0020)		0.0025 (0.0028)
ROA (t-1)		-0.0006 (0.0013)		-0.0021 (0.0031)
Institutional Ownership (t-1)		-0.0009 (0.0014)		-0.0052*** (0.0024)
GHG Intensity (t-1)		0.0000** (0.0000)		0.0000 (0.0000)
ESG Score (t-1)		0.0000 (0.0000)		-0.0000 (0.0000)
Fixed Effects:				
Firm	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes
Clustered SE	Individual	Individual	Individual	Individual
Observations	238,592	78,272	200,550	68,129
R ²	0.0432	0.0477	0.0696	0.0509
Within R ²	0.0067	0.0096	0.0006	0.0006

Note: This table focuses on entry into leadership roles. The sample is restricted to individuals observed in two consecutive years who did not hold the focal role in year $t - 1$. The dependent variable equals one if the individual enters the given role in year t . The table therefore tests whether the gender asymmetries documented in the allocation models arise at entry rather than e.g. through persistence. Standard errors are reported in parentheses. Asterisks indicate $p < 0.01$ (***), $p < 0.05$ (**), and $p < 0.1$ (*).

Table V. Post-adoption effects on core firm outcomes.

	GHG Outcome		ESG Outcome	
	(1)	(2)	(3)	(4)
Specification:	Baseline	Full Controls	Baseline	Full Controls
Post Adoption	8.4883 (13.2848)	-0.2332 (13.1036)	0.8216 (0.5156)	0.7633 (0.5335)
Firm Size (t-1)		30.7282*** (11.3110)		2.5128*** (0.2976)
Book Leverage (t-1)		15.9061 (11.9272)		-0.8606 (0.7796)
ROA (t-1)		2.8329 (4.0774)		1.7887*** (0.5451)
Institutional Ownership (t-1)		-29.1907* (16.8884)		0.8590 (0.7096)
Fixed Effects:				
Firm	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes
Clustered SE	Firm	Firm	Firm	Firm
Observations	41,317	31,880	22,788	20,396
R ²	0.8962	0.8723	0.8858	0.8944
Within R ²	0.0000	0.0013	0.0005	0.0158

Note: This table reports two-way fixed-effects estimates of post-adoption changes in firm outcomes following the introduction of stakeholder-oriented leadership roles. Columns (1)-(2) use next-year GHG intensity as the dependent variable. Columns (3)-(4) use next-year ESG score. Columns (2) and (4) add lagged firm controls and institutional ownership. Standard errors are clustered at the firm level. Standard errors are reported in parentheses. Asterisks indicate $p < 0.01$ (***), $p < 0.05$ (**), and $p < 0.1$ (*).

Table VI. Post-adoption effects on expanded stakeholder outcomes.

Outcome:	(1)	(2)	(3)	(4)
	Environmental Reporting _{t+1}	Stakeholder Engagement _{t+1}	Climate Governance _{t+1}	Environmental Violations _{t+1}
Post Adoption	1.4936 (1.7599)	-0.4941 (2.5359)	-0.6742 (2.8452)	-3.4580 (2.2022)
Firm Size (t-1)	3.3219*** (0.9840)	2.6583 (1.7594)	1.6066 (1.4938)	2.7784* (1.5122)
Book Leverage (t-1)	-2.5900 (2.5643)	-0.2435 (2.3884)	-8.7956*** (3.2274)	-4.3590 (4.2789)
ROA (t-1)	-4.2123 (2.6345)	0.4919 (4.5594)	2.1475 (2.0988)	-4.1765 (3.3517)
Institutional Ownership (t-1)	-1.6762 (2.6703)	-1.0281 (2.8238)	8.7203*** (2.9022)	4.5871 (3.4328)
Fixed Effects:				
Firm	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes
Clustered SE	Firm	Firm	Firm	Firm
Observations	12,990	3,080	8,176	8,785
R ²	0.8529	0.8690	0.9069	0.7251
Within R ²	0.0027	0.0028	0.0040	0.0027

Note: This table reports post-adoption estimates for additional stakeholder-oriented outcome variables available from the extended S&P ESG data. All models include firm and year fixed effects and cluster standard errors at the firm level. Standard errors are reported in parentheses. Asterisks indicate $p < 0.01$ (***), $p < 0.05$ (**), and $p < 0.1$ (*).

Appendix A: Variable Definitions

Table AI. Variable Definitions

Variable	Definition
Stakeholder-Oriented Role Assignment	Indicator equal to 1 if an individual holds a stakeholder-oriented leadership position in period t , and 0 otherwise. Stakeholder-oriented roles are positions whose primary mandate concerns non-financial stakeholder objectives, such as sustainability, ESG, climate, diversity and inclusion, ethics and compliance, public affairs, or safety.
Stakeholder-Oriented RSHC	Indicator equal to 1 if the proxy-statement biography provides evidence of prior stakeholder-oriented experience, prior responsibilities, education, training, certification, or related credentials in sustainability, ESG, climate, DEI, ethics/compliance, public affairs, safety, or related domains, and 0 otherwise. Coding is based on prior background and excludes the individual's current role at the firm.
Shareholder-Oriented Role Assignment	Indicator equal to 1 if an individual holds a shareholder-oriented leadership position in period t , and 0 otherwise. Shareholder-oriented roles are finance-oriented authority roles, such as Chief Financial Officer, Chief Accounting Officer, Treasurer, Head of Finance, and closely related CFO-family or senior finance positions.
Shareholder-Oriented RSHC	Indicator equal to 1 if the proxy-statement biography provides evidence of prior shareholder-oriented experience, prior responsibilities, education, training, certification, or related credentials in finance, accounting, audit, treasury, banking, investing, strategy, or related domains, and 0 otherwise. Coding is based on prior background and excludes the individual's current role at the firm.
Female	Indicator equal to 1 for women and 0 for men.

Table AI continued

Variable	Definition
Adopt_t	Indicator equal to 1 in the first year in which a firm introduces a stakeholder-oriented role, conditional on not having adopted such a role previously, and 0 otherwise.
PostAdoption	Indicator equal to 1 for firm-years after the first introduction of a stakeholder-oriented role, and 0 otherwise.
ESG Score	S&P Global ESG Score measuring a firm's performance on and management of material environmental, social, and governance risks, opportunities, and impacts. The score combines company disclosures with media and stakeholder analysis, modeling inputs, and the S&P Global Corporate Sustainability Assessment. See official documentation .
Environmental Reporting	S&P extended ESG outcome measuring the firm's environmental reporting and disclosure practices.
Stakeholder Engagement	S&P extended ESG outcome measuring the firm's stakeholder-engagement practices.
Climate Governance	S&P extended ESG outcome measuring the extent of governance structures and oversight related to climate issues.
Environmental Violations	S&P extended ESG outcome capturing environmental controversies, incidents, or violations.
GHG Intensity	Firm's Scope 1 greenhouse-gas emissions scaled by total revenue in period t . Scope 1 emissions are direct emissions from sources owned or controlled by the firm, such as on-site fuel combustion, company vehicles, and industrial processes.
Female-Dominated Board	Indicator equal to 1 if women constitute a majority of board members in a given firm-year, and 0 otherwise.
Female-Dominated Nominating Committee	Indicator equal to 1 if women constitute a majority of nominating-committee members in a given firm-year, and 0 otherwise.

Table AI continued

Variable	Definition
Book Leverage	Book leverage ratio, measured as total debt divided by total assets in period t , where total debt equals long-term debt plus debt in current liabilities.
ROA	Return on assets, measured as net income divided by total assets in period t .
Institutional Ownership	Institutional ownership ratio, measured as the fraction of the firm's shares outstanding held by institutional investors in period t . Institutional holdings are constructed from aggregated 13F-style shareholdings, matched to the firm-year using the nearest prior reporting date.
Firm Size	Firm size, measured as the natural logarithm of total assets in period t .
Firm Age	Firm age, measured as years since the company's founding year.

Appendix B: Robustness Tests

Table BI. Logit robustness for adoption of stakeholder-oriented leadership roles.

	(1)	(2)
Dependent Variable:	Adopt _t	Adopt _t
Firm Size (t-1)	0.0317 (0.0204)	0.0725 (0.0477)
Book Leverage (t-1)	-0.0673 (0.0948)	0.0665 (0.2833)
ROA (t-1)	-0.0136 (0.0111)	-0.0933 (0.5062)
Institutional Ownership (t-1)	1.4862*** (0.1146)	1.6346*** (0.1900)
GHG Intensity (t-1)		-0.0000 (0.0001)
ESG Score (t-1)		-0.0030 (0.0048)
Fixed Effects:		
Firm	No	No
Year	Yes	Yes
Industry	Yes	Yes
Clustered SE	Firm	Firm
Observations	38,908	14,700
Pseudo R ²	0.0509	0.0679

Note: This table re-estimates the main adoption specifications using logit models. Coefficients are therefore in log-odds units. Column (1) reports the baseline specification, and column (2) adds lagged ESG score and GHG intensity. All specifications include year and industry fixed effects and cluster standard errors at the firm level. Standard errors are reported in parentheses. Asterisks indicate $p < 0.01$ (***), $p < 0.05$ (**), and $p < 0.1$ (*).

Table BII. Role-based robustness test by directors and officers.

	Stakeholder-oriented Roles		Shareholder-oriented Roles	
	(1)	(2)	(3)	(4)
Sample:	Directors	Officers	Directors	Officers
Stakeholder-oriented RSHC	0.0002 (0.0002)	0.0030*** (0.0008)		
Shareholder-oriented RSHC			0.0062*** (0.0004)	0.2598*** (0.0071)
Female	0.0013*** (0.0003)	0.0310*** (0.0064)	0.0004 (0.0004)	-0.0133* (0.0080)
Stakeholder-oriented RSHC $\times$ Female	0.0044*** (0.0006)	0.1133*** (0.0078)		
Shareholder-oriented RSHC $\times$ Female			-0.0023*** (0.0009)	-0.0054 (0.0106)
Fixed Effects:				
Firm	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes
Clustered SE	Individual	Individual	Individual	Individual
Observations	263,300	117,504	258,881	97,937
R ²	0.0479	0.1663	0.1091	0.2673
Within R ²	0.0033	0.0825	0.0019	0.0973

Note: This table re-estimates the main allocation specifications separately for directors and for officers. Columns (1)-(2) correspond to stakeholder-oriented roles; columns (3)-(4) correspond to shareholder-oriented roles. Standard errors are reported in parentheses. Asterisks indicate $p < 0.01$ (***), $p < 0.05$ (**), and $p < 0.1$ (*).

Table BIII. Governance-environment heterogeneity in stakeholder- and shareholder-oriented role assignment.

Dependent Variable:	Female-Dominated Environments				Male-Dominated Environments			
	Board		Nominating Committee		Board		Nominating Committee	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Stakeholder-oriented RSHC	0.0048* (0.0028)		-0.0004 (0.0009)		0.0006* (0.0003)		0.0011** (0.0005)	
Shareholder-oriented RSHC		0.0539*** (0.0080)		0.0575*** (0.0041)		0.0549*** (0.0019)		0.0576*** (0.0023)
Female	0.0021 (0.0020)	-0.0075 (0.0050)	0.0056*** (0.0016)	-0.0045 (0.0030)	0.0092*** (0.0010)	-0.0017 (0.0014)	0.0100*** (0.0014)	-0.0007 (0.0017)
Stakeholder-oriented RSHC $\times$ Female	0.0259*** (0.0075)		0.0243*** (0.0043)		0.0228*** (0.0024)		0.0229*** (0.0030)	
Shareholder-oriented RSHC $\times$ Female		-0.0167 (0.0103)		-0.0225*** (0.0055)		-0.0213*** (0.0030)		-0.0156*** (0.0037)
Firm Size (t-1)	-0.0144 (0.0132)	-0.0391 (0.0295)	-0.0040 (0.0036)	-0.0036 (0.0088)	-0.0007 (0.0009)	-0.0069** (0.0029)	0.0008 (0.0011)	-0.0059 (0.0039)
Book Leverage (t-1)	0.0719** (0.0281)	0.0225 (0.0534)	0.0045 (0.0083)	0.0027 (0.0241)	0.0073** (0.0030)	0.0090 (0.0086)	0.0080* (0.0041)	0.0039 (0.0103)
ROA (t-1)	-0.0065 (0.0559)	0.0527 (0.1291)	0.0122* (0.0073)	-0.0702* (0.0383)	0.0048** (0.0019)	-0.0014 (0.0062)	0.0046 (0.0030)	-0.0053 (0.0089)
Institutional Ownership (t-1)	0.0107 (0.0226)	0.0834 (0.0529)	0.0020 (0.0037)	0.0230 (0.0211)	0.0018 (0.0023)	0.0094 (0.0063)	0.0015 (0.0027)	0.0110 (0.0082)
GHG Intensity (t-1)	0.0000 (0.0000)	0.0000 (0.0000)	0.0000 (0.0000)	0.0000 (0.0000)	0.0000 (0.0000)	0.0000 (0.0000)	0.0000 (0.0000)	0.0000 (0.0000)
ESG Score (t-1)	0.0004 (0.0008)	-0.0019* (0.0011)	0.0001 (0.0002)	0.0004 (0.0004)	0.0000 (0.0000)	0.0000 (0.0001)	0.0000 (0.0000)	0.0000 (0.0001)
Fixed Effects:								
Firm	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Clustered SE	Individual	Individual	Individual	Individual	Individual	Individual	Individual	Individual
Observations	4,172	4,172	18,014	18,014	97,900	97,900	61,900	61,900
R ²	0.1303	0.1108	0.0889	0.0968	0.0566	0.0604	0.0726	0.0715
Within R ²	0.0243	0.0219	0.0190	0.0181	0.0197	0.0159	0.0203	0.0168

Note: This table re-estimates the main stakeholder- and shareholder-oriented role-assignment models separately by governance environment. Columns (1)–(4) report estimates for female-dominated environments, and columns (5)–(8) report estimates for male-dominated environments. Within each environment, odd-numbered columns correspond to stakeholder-oriented role assignment and even-numbered columns correspond to shareholder-oriented role assignment. All specifications include the full control set, firm fixed effects, year fixed effects, and standard errors clustered at the individual level. Standard errors are reported in parentheses. Asterisks indicate $p < 0.01$ (***), $p < 0.05$ (**), and $p < 0.1$ (*).

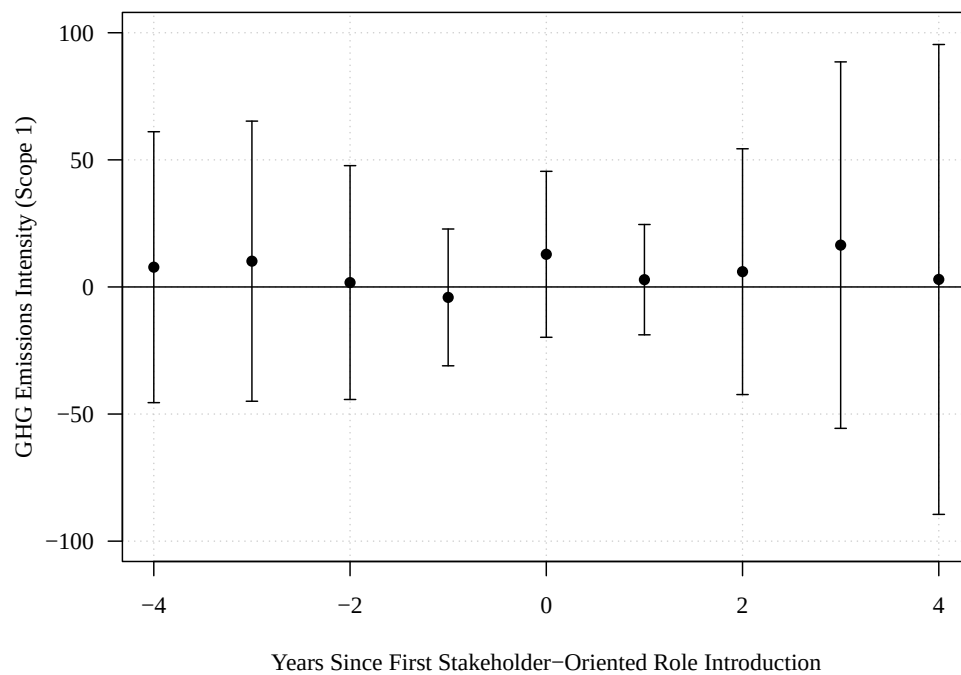


Figure B1. GHG Intensity Around Stakeholder-Oriented (ESG) Role Introduction (with Callaway & Sant'Anna (2021) robustness).

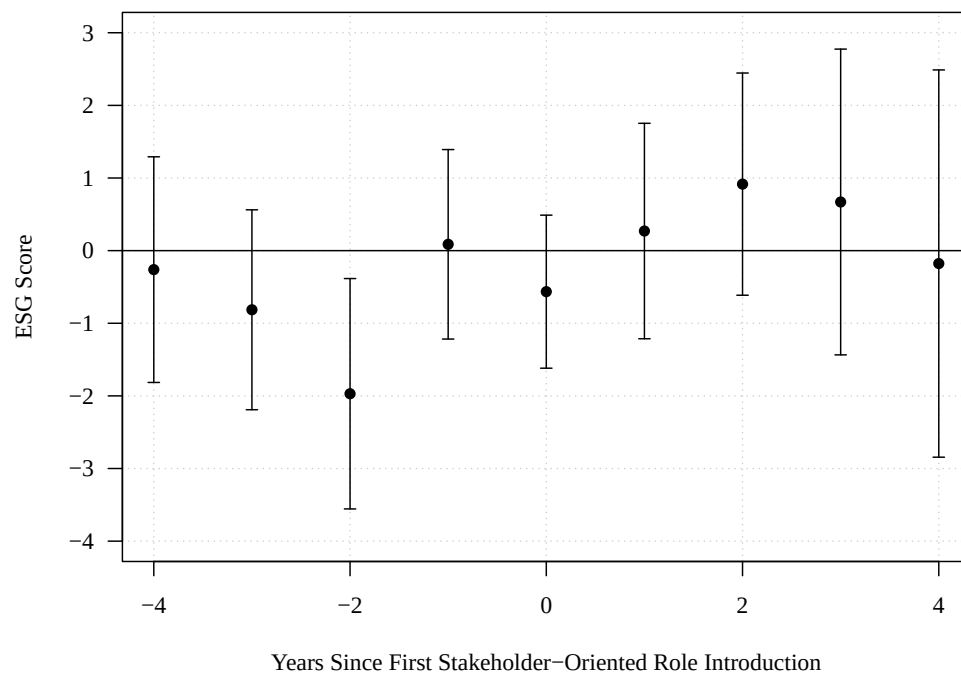


Figure B2. ESG Score Around Stakeholder-Oriented (ESG) Role Introduction (with Call-away & Sant'Anna (2021) robustness).

Table BIV. Callaway and Sant’Anna (2021) robustness for core post-adoption outcomes

Outcome	ATT	S.E.	95% CI Low	95% CI High	Observations
GHG Intensity	6.7655	33.8482	-59.5770	73.1079	31,890
ESG Score	0.1559	0.8268	-1.4647	1.7764	20,406

Note: This table reports overall post-treatment average treatment effects estimated using the Callaway and Sant’Anna (2021) staggered-adoption framework. ATT denotes the average treatment effect on the treated. S.E. denotes the standard error. 95% CI Low and 95% CI High report the lower and upper bounds of the corresponding 95% confidence interval. Both specifications use the full preferred control set (firm size, book leverage, ROA, and institutional ownership), regression adjustment, and never-treated firms as controls. Standard errors are clustered at the firm level. Asterisks indicate $p < 0.01$ (***), $p < 0.05$ (**), and $p < 0.1$ (*).