Commitments without Implementation? Multinational Firms and the Strategic Alignment Gap in Corporate Climate Governance

Abstract

Transnational climate governance has led firms to adopt increasingly ambitious climate commitments, yet significant variation remains in the extent to which these commitments are translated into actual implementation. This study examines how institutional environments shape the alignment between firms' climate commitments and implementation outcomes. Drawing on institutional theory, we argue that stronger institutional governance increases pressure on firms to signal alignment with global sustainability norms, potentially widening the gap between commitments and implementation. Using firm-level data from the Climate Action 100+ Net Zero Company Benchmark for 170 publicly listed firms across 33 countries over the period 2021–2025, we investigate how institutional quality, climate policy stringency, disclosure transparency, and investor oversight shape this relationship. Our findings show that stronger institutional environments are associated with a larger alignment gap, as they encourage firms to adopt more ambitious climate commitments while implementation adjusts more gradually. However, stricter climate regulation, greater disclosure requirements, and higher institutional ownership reduce the gap by strengthening accountability and monitoring of corporate climate strategies. Overall, the results highlight how institutional environments and governance mechanisms shape the credibility and implementation of firms' climate commitments, offering important implications for both policy design and corporate climate governance.

Keywords: climate governance; corporate climate commitments; strategic alignment gap; disclosure transparency; institutional investors

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1. Introduction

Climate change presents a fundamental governance challenge for the multinational enterprises (MNEs). While regulatory authority remains largely territorially bounded, greenhouse gas emissions arise from production systems and investment decisions that are deeply internationalized. MNEs, through their global value chains, capital allocation, and operational strategies, therefore, play a central role in shaping the trajectory of global decarbonization (Buckley, Doh, & Benischke, 2017; Yu et al., 2023; Benito & Meyer, 2024; King & Beamish, 2026). As a result, firms are no longer merely regulated entities but increasingly act as key participants in the architecture of global climate governance.

Over the past decade, a system of transnational private climate governance has emerged alongside intergovernmental climate agreements. One prominent example is the investor-led initiative Climate Action 100+, launched in 2017 to coordinate investor engagement with the world's largest corporate greenhouse gas emitters. More broadly, investor coalitions, benchmarking initiatives, and disclosure frameworks increasingly shape expectations regarding corporate climate ambition beyond the authority of individual states. Through mechanisms such as standardized climate disclosures and net-zero commitments, these initiatives encourage firms to adopt decarbonization strategies aligned with global climate objectives (Barkemeyer et al., 2015; Christensen et al., 2021; Bolton & Kacperczyk, 2025; Gipper et al.,2026; Kapteina et al.,

2026). Financial markets have also incorporated climate considerations into asset pricing and firm valuation, reinforcing incentives for firms to demonstrate credible climate commitments (Bolton & Kacperczyk, 2023; Pankratz et al., 2023; Zhang, 2025).

A striking empirical pattern accompanies the expansion of transnational climate governance. Existing studies suggest that across countries with markedly different regulatory regimes, firms increasingly converge in their formal-climate commitments. Examples of these commitments include Net-zero pledges, climate transition plans, and standardized disclosure practices which have diffused widely among multinational firms headquartered in both highly regulated and weakly regulated economies (Nippa et al., 2021; Allen et al., 2025; Ng et al., 2025). However, despite this convergence in commitments, firms differ substantially in their implementation of strategies. Thus, firms participating in the same governance initiatives vary widely in their operational decarbonization, capital allocation toward low-carbon technologies, emissions reductions, and integration of climate governance into internal decision-making processes (Dahlmann et al., 2019; Rekker et al., 2022; Carrión et al., 2025).

Therefore, this divergence raises an important question: why do multinational firms adopt similar climate commitments under transnational governance regimes but differ substantially in the implementation of those commitments across institutional environments? Addressing this question is essential for understanding how global climate governance interacts with national institutional contexts to shape corporate climate strategies.

Existing research provides only a partial explanation. International business studies emphasize that MNEs operate across heterogeneous institutional environments and adapt strategies through non-market capabilities and institutional arbitrage (Aguilera & Jackson, 2010; Pinkse & Kolk,

2011; Nippa et al., 2021) but largely treat institutional pressures as state-based and overlook transnational governance. In parallel, accounting and finance research documents the rapid diffusion of climate disclosures and commitments driven by investor demand and private standard-setting (Berger-Schmitz et al., 2023; Ramadorai & Zeni, 2024; Karman et al., 2025) yet often abstracts from cross-country institutional heterogeneity.

Despite these advances, we still have limited understanding of how global climate commitments translate into operational implementation within firms embedded in diverse institutional environments. In this paper, we argue that the divergence between climate commitments and implementation reflects a structural tension between transnational private governance standardization and domestic institutional embeddedness**.** Transnational private governance initiatives create strong incentives for firms to converge in formal climate commitments because such commitments function as legitimacy signals within global capital markets and investor networks (Yu et al., 2023; Allen et al., 2025). However, the implementation of these commitments depends on domestic institutional conditions, including regulatory quality, enforcement capacity, and climate policy instruments such as carbon pricing (Bose et al., 2024; Martinsson et al., 2024).

Because these institutional conditions vary substantially across countries, the translation of global commitments into substantive operational change remains uneven. We conceptualize this divergence as the strategic alignment gap, defined as the difference between firms' publicly articulated climate commitments and the extent to which these commitments are embedded in operational and governance practices. Rather than interpreting this gap solely as managerial

opportunism or greenwashing, we argue that it reflects the structural complexity of multi-level climate governance, where firms face overlapping but imperfectly aligned institutional pressures.

To examine this phenomenon, we analyze a multi-country panel of multinational firms participating in transnational climate governance initiatives. Using indicators from the Climate Action 100+ Net Zero Company Benchmark, we construct a firm-level measure capturing the difference between climate commitment intensity and implementation mechanisms across multiple dimensions of corporate climate strategy, including net-zero ambition, decarbonization planning, capital allocation, governance integration, and disclosure practices. We link this firm-level measure to country-level indicators of institutional quality, regulatory capacity, and carbon policy stringency covering 170 firms across 33 countries over the period 2021–2025.

Our analysis produces three main findings. First, we document strong convergence in formal climate commitments across firms headquartered in countries with widely different institutional environments. Second, the depth of implementation varies systematically with national institutional conditions, particularly regulatory quality and climate policy instruments. Third, stronger institutional environments are associated with a larger strategic alignment gap, indicating that institutional capacity moderates the translation of global commitments into substantive organizational change.

Our study contributes to the literature on international business, sustainable finance, and corporate climate strategy in three ways. First, prior research in international business shows that multinational enterprises adapt their strategies to heterogeneous national regulatory environments and institutional constraints (Aguilera & Jackson, 2010; Pinkse & Kolk, 2011; Benito & Meyer, 2024; King & Beamish, 2026). We extend this literature by incorporating the

role of transnational private climate governance initiatives and examining how global governance pressures interact with domestic institutional environments to shape corporate climate strategies.

Second, research in finance and accounting highlights how climate disclosures and transition risks increasingly influence financial markets and firm valuation (Christensen et al., 2021; Bolton & Kacperczyk, 2023; Starks, 2023; Ramadorai & Zeni, 2024; Zhang, 2025). We extend this literature by showing that the adoption of climate commitments does not necessarily translate into operational decarbonization when firms operate across heterogeneous institutional environments.

Third, we contribute to institutional theory by introducing the strategic alignment gap, which captures the divergence between firms' climate commitments and their operational implementation. While institutional perspectives highlight decoupling between formal structures and organizational practices (Meyer & Rowan, 1977; DiMaggio & Powell, 1983), we show that misalignment may also arise from structural tensions between transnational governance pressures and domestic institutional constraints.

More broadly, our findings highlight a central tension in contemporary global governance. As transnational standards and private governance initiatives proliferate, firms face increasingly convergent expectations regarding climate commitments, while the institutional environments governing implementation remain nationally embedded and heterogeneous. For multinational enterprises operating across multiple jurisdictions, this multi-level governance structure creates strategic complexity that cannot be fully understood through single-country perspectives.

The remainder of the paper is structured as follows. Section 2 reviews related literature and develops hypotheses. Section 3 describes the data and variable measurement. Section 4 outlines the empirical methodology. Section 5 presents the results. Section 6 concludes.

2. Related literature and hypothesis development.

2.1. Transnational Private Climate Governance and Corporate Climate Commitments

Global climate governance has undergone a substantial transformation over the past two decades. While climate policy was historically coordinated primarily through intergovernmental agreements and national regulation, authorities have increasingly diffused toward transnational private actors such as institutional investors, disclosure standard-setters, rating agencies, and science-based target initiatives (Green, 2014; Barkemeyer et al., 2015; Kapteina et al., 2026). These actors influence corporate behavior through benchmarking systems, disclosure frameworks, and investor engagement platforms that operate across national jurisdictions.

Through these mechanisms, transnational private governance initiatives establish standardized expectations regarding corporate climate ambition. Firms are encouraged to adopt net-zero targets, publish transition strategies, and disclose emissions trajectories according to globally recognized reporting standards (Christensen et al., 2021). Importantly, these governance regimes operate largely outside the authority of individual states. Their influence derives not from direct legal enforcement but from reputational incentives, investor monitoring, and capital market discipline (Bolton & Kacperczyk, 2023; Starks, 2023).

Multinational enterprises occupy a central position within this governance architecture. Because their operations and supply chains span multiple jurisdictions, they are simultaneously exposed

to transnational governance pressures and domestically embedded regulatory environments (Buckley et al., 2017; Benito & Meyer, 2024). Global investors, disclosure frameworks, and benchmarking initiatives evaluate firms according to standardized climate metrics that operate largely independent of national boundaries. At the same time, the implementation of climate strategies such as emissions reductions, technological investments, and operational restructuring remains embedded within country-specific institutional contexts characterized by varying regulatory quality, enforcement capacity, and policy instruments (Aguilera & Jackson, 2010; Greenwood et al., 2011).

Institutional theory suggests that organizations subject to common evaluative frameworks often exhibit isomorphic behavior when legitimacy in global markets is at stake (DiMaggio & Powell, 1983; Galleli & Amaral, 2026). Public commitments such as net-zero pledges therefore function as visible signals of alignment with prevailing sustainability expectations (Rekker et al., 2022; Berger-Schmitz et al., 2023). Firms may face coercive pressures from investors and benchmarking initiatives, normative expectations from professional standards, and mimetic incentives to emulate peers' climate commitments under conditions of uncertainty (Delmas & Toffel, 2008; Pinkse & Kolk, 2011; Marquis et al., 2016; Ramadorai & Zeni, 2024).

The adoption of such commitments is often less costly than their operational implementation. Firms can articulate ambitious climate targets without immediately undertaking large-scale operational restructuring or capital investments. As a result, transnational climate governance regimes are likely to generate convergence in formal climate commitments across firms, even when those firms operate in different domestic institutional environments (Rekker et al., 2022).

2.2. Institutional Heterogeneity and Climate Strategy Implementation

The interaction between transnational climate governance and heterogeneous domestic institutional environments can generate divergence between firms' climate commitments and their operational implementation. Transnational governance initiatives encourage firms to adopt standardized climate commitments in order to maintain legitimacy within global capital markets and investor networks (Christensen, Hail, & Leuz, 2021; Bolton & Kacperczyk, 2023). Public commitments such as net-zero targets or transition strategies serve as visible signals of alignment with global climate norms and expectations.

However, translating these commitments into operational practice typically requires substantial organizational change. Implementation may involve large-scale capital investments, technological upgrades, supply chain adjustments, and the integration of climate considerations into internal governance processes. These actions are often costly and depend heavily on the regulatory environment and policy incentives present in the jurisdictions in which firms operate (Wright & Nyberg, 2017; Martinsson et al., 2024).

In addition to institutionally heterogeneous environments, multinational firms differ substantially in their strategy and operations. As a result, they may face a structural tension between symbolic alignment with global governance expectations and the practical constraints of implementation. While commitments may converge due to global legitimacy pressures, implementation can vary significantly depending on institutional conditions. We conceptualize this divergence as the strategic alignment gap, defined as the extent to which a firm's publicly articulated climate commitments exceed the depth of its operational implementation mechanisms (Rekker et al., 2022; Kapteina et al., 2026). This framework suggests that institutional environments play a crucial role in moderating the relationship between climate commitments and implementation.

H1: Stronger institutional environments are associated with a larger Strategic Alignment Gap

2.3. Regulation, Disclosure, Institutional Enforcement and Strategic Alignment

The coexistence of transnational governance expectations and nationally embedded institutional environments creates divergence between corporate climate commitments and their implementation. We conceptualize this as the Strategic Alignment Gap, defined as the difference between firms stated commitments and their operational and governance implementation.

Institutional theory suggests that firms may adopt formal commitments to maintain legitimacy while decoupling them from underlying practices when implementation is costly or constrained (Meyer & Rowan, 1977; DiMaggio & Powell, 1983). In the context of transnational climate governance, such misalignment reflects not only symbolic compliance but also structural tensions between global expectations and heterogeneous domestic institutional environments (Christensen et al., 2021).

Stronger institutional environments increase transparency and scrutiny, raising the costs of misalignment and encourage deeper implementation (Martinsson et al., 2024; Ng et al., 2025). Conversely, weaker environments allow greater scope for symbolic compliance (Dahlmann et al., 2019; Rekker et al., 2022).

H2: Stronger climate regulation and disclosure requirements are associated with a smaller Strategic Alignment Gap.

2.4. Firm-Level Governance and Organizational Alignment

Although institutional environments shape the structural conditions for climate strategy implementation, firms are not passive recipients of institutional pressures. Corporate governance and ownership structures play an important role in shaping how firms respond to external expectations. Prior research in finance and accounting emphasizes that investors, boards, and governance mechanisms influence firms' environmental strategies and disclosure practices by strengthening monitoring and accountability within organizations (Christensen et al., 2021; Starks, 2023).

Firm-level governance structures play a critical role in translating external climate expectations into internal practices. Board oversight, sustainability-oriented governance mechanisms, and transparent disclosure systems strengthen monitoring, coordination, and accountability, facilitating the integration of climate commitments into strategic decision-making. In particular, institutional investors and active ownership amplify pressure on firms through monitoring, engagement, and capital allocation decisions (Bolton & Kacperczyk, 2023). Additionally, mechanisms such as sustainability committees, climate reporting structures, and internal controls reduce the risk that commitments remain symbolic. Stronger governance and credible disclosure systems are associated with improved environmental performance and more credible climate strategies (Marquis et al., 2016; Martinsson et al., 2024).

H3: Stronger investor oversight is associated with a smaller Strategic Alignment Gap.

3. Data

The empirical analysis is based on firm-level data for the period 2021-2025 from the Climate Action 100+ Net Zero Company Benchmark[1], which provides externally assessed, standardized information on climate-related commitments, governance structures, and implementation practices in about 160 - 170 of the world's largest corporate greenhouse gas emitters. This makes the dataset particularly well suited for examining strategic heterogeneity among firms subject to a common transnational governance regime and because these firms operate across multiple jurisdictions and institutional environments, the initiative provides a particularly suitable empirical setting for examining how global climate governance pressures interact with domestic institutional conditions.

Firm-level financial information and governance characteristics are obtained from Refinitiv Workspace. Refinitiv provides standardized financial statements, ownership structures, environmental performance indicators, and corporate governance variables for publicly listed firms globally. Country-level institutional variables are obtained from the World Governance Indicators (WGI) database[2]. The datasets are merged using firm identifiers (RIC and iso3 country

[1] https://www.climateaction100.org/

[2] https://www.worldbank.org/en/publication/worldwide-governance-indicators

codes). The resulting panel dataset contains 656 firm-year observations for the period 2021–2025, representing 170 unique firms headquartered in 33 countries. We winsorize continuous variables are at the 1st and 99th percentiles to mitigate the influence of outliers. All variables used in the analysis are defined in Table 1.

******insert table 1 about here******

3.1. Measurement of variables

3.1.1. Strategic Alignment Gap and Climate Governance Indices

The primary dependent variable in the analysis is the Strategic Alignment Gap, which captures the extent to which firms' publicly stated climate ambitions are aligned with the governance structures and operational mechanisms required to implement those commitments.

Formally, the strategic alignment gap for firm $i$in year $t$is defined as

$$Strategic_Alignment_Gap_{i,t} = Commitment_Index_{i,t} - Implementation_Index_{i,t}$$

where $Commitment_Index_{i,t}$measures the strength of firms' stated climate ambitions and $Implementation_Index_{i,t}$captures the extent to which those ambitions are embedded within corporate governance structures and operational strategies.

Because both indices are bounded between 0 and 1, the theoretical range of the strategic alignment gap is

$$-1 \leq Strategic_Alignment_Gap_{i,t} \leq 1$$

A positive value indicates that the firm's climate commitments exceed the level of implementation embedded in its governance and operational structures, suggesting a potential misalignment

between ambition and execution. Conversely, values close to zero indicate stronger alignment between commitments and implementation.

3.1.2. Construction of the Climate Commitment Index

The Commitment Index captures the strength and credibility of firms' publicly stated greenhouse gas reduction targets. It reflects whether firms have articulated emissions reduction goals across multiple time horizons consistent with long-term decarbonization pathways. The index is constructed using four indicators derived from the Climate Action 100+ Net-Zero Company Benchmark.

Formally, $Commitment_Index_{i,t} = \frac{1}{4}\sum_{k=1}^{4} Indicato\, r_{k,i,t}$

where $Indicator_{k,i,t}$represents the coded value of the k-th commitment indicator for firm i in year t.

Each indicator is coded using the following transformation:

$$Indicator_{k,i,t} = \begin{cases} 1 & \text{if the firm fully satisfies the benchmark criterion} \\ 0.5 & \text{if the firm partially satisfies the criterion} \\ 0 & \text{if the firm does not satisfy the criterion} \end{cases}$$

Thus, the Commitment Index ranges between 0 and 1, where higher values reflect stronger and more comprehensive climate commitments. The four indicators used to construct this index capture the existence of emissions reduction targets across different time horizons.

Indicator 1: Net-zero greenhouse gas emissions by 2050 or earlier

This indicator evaluates whether the firm has publicly committed to achieving net-zero greenhouse gas emissions by 2050 or earlier. A value of one indicates that the firm has adopted a clear net-zero target consistent with the long-term objectives of the Paris Agreement.

Indicator 2: Long-term emissions reduction targets (2036–2050)

This indicator captures whether the firm has established a long-term emissions reduction pathway extending beyond 2035. The presence of such targets signals that the firm has articulated a long-term decarbonization trajectory.

Indicator 3: Medium-term emissions reduction targets (2027–2035)

This indicator measures whether firms have defined medium-term emissions reduction targets that bridge short-term commitments and long-term climate ambitions.

Indicator 4: Short-term emissions reduction targets (up to 2026)

This indicator captures whether firms have established near-term emissions reduction targets that guide immediate decarbonization actions.

Together, these four indicators capture the temporal credibility of firms' climate ambition, ensuring that commitments extend across short-, medium-, and long-term planning horizons.

3.1.3. Construction of the Climate Implementation Index

While the commitment index measures climate ambition, the Implementation Index captures whether firms have established governance mechanisms and operational structures capable of delivering on those commitments.

The implementation index is defined as

$$Implementation_Index_{i,t} = \frac{1}{4}\sum_{j=5}^{8} Indicato\, r_{j,i,t}$$

where $Indicator_{j,i,t}$represents implementation-related governance indicators.

Like the commitment index, the implementation index ranges between 0 and 1.

The implementation indicators include the following dimensions.

Indicator 5: Decarbonization strategy

This indicator evaluates whether the firm has articulated a clear and credible strategy describing how emissions reductions will be achieved. The presence of such a strategy suggests that climate commitments are supported by operational planning.

Indicator 6: Capital allocation alignment

This indicator captures whether the firm's capital expenditures and investment strategies are aligned with its decarbonization objectives. Alignment between investment decisions and climate targets is a key indicator of implementation credibility.

Indicator 7: Climate policy engagement

This indicator measures whether the firm's policy engagement activities are consistent with climate policies aligned with the goals of the Paris Agreement. Firms that publicly support climate policy but engage in contradictory lobbying activities receive lower scores.

Indicator 8: Climate governance

This indicator captures whether climate-related risks and opportunities are integrated into the firm's governance framework. This includes board oversight, executive accountability, and internal governance mechanisms related to climate strategy.

3.1.4. Construction of the Climate Disclosure Index

To capture firms' transparency regarding climate governance and transition risks, we construct a Climate Disclosure Index based on disclosure-related benchmark indicators.

The index is defined as:

$$Disclosure_{i,t} = \frac{1}{2}\sum_{j=9}^{10} Indicato\, r_{j,i,t}$$

As with the other indices, each indicator is coded using the benchmark scoring scheme of 0, 0.5, or 1. The resulting index ranges from 0 to 1, with higher values indicating greater transparency in climate-related disclosure. The disclosure index incorporates two indicators:

Indicator 9: Just Transition

This indicator evaluates whether firms consider social and workforce implications associated with the transition to a low-carbon economy.

Indicator 10: TCFD-Aligned Disclosure

This indicator measures whether firms disclose climate-related financial risks and opportunities in accordance with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). These indicators capture the transparency of firms' climate governance and the extent to which climate risks are integrated into financial reporting practices.

3.1.5. Regulatory Stringency Index and Enforcement Strength

The Regulatory Stringency Index measures the strength of the regulatory framework governing climate-related disclosures. The index ranges from 0 to 4, with higher values indicating more stringent regulatory requirements. It is constructed by summing four binary indicators that capture key regulatory characteristics: whether the disclosure requirement is issued by a

government institution, whether it does not follow a comply-or-explain approach, whether disclosures must be implemented simultaneously rather than gradually, and whether the disclosures must be included in the annual report. Each component takes the value 1 if the condition is met and 0, resulting in a composite measure that reflects the overall rigidity and enforceability of the disclosure regime. Enforcement Strength captures whether climate disclosure requirements are supported by a strong regulatory enforcement framework. The variable takes value 1 when disclosure rules are issued by a government institution and do not follow a comply-or-explain approach, indicating a mandatory and enforceable regulatory regime. Otherwise, the variable takes the value 0.

4. Methodology

To examine how institutional environments and climate disclosure regulations influence the alignment between firms' climate commitments and implementation practices, we estimate the following baseline ordinary least squares (OLS) model:

$$Gap_{i,t} = \alpha + \beta_1 InstitutionalQuality_{c,t} + \beta_2 ClimatePolicy_{c,t} + \beta_3 Z_{i,t} + \sum IndustryFE_s + \sum YearFE_t + \varepsilon_{i,t} \quad (1)$$

where $Gap_{i,t}$denotes the Strategic Alignment Gap for firm i in year t.

The primary explanatory variables capture country-level institutional quality and climate regulatory environments. Specifically, we measure institutional quality using Regulatory Quality (RQ) and Rule of Law (RL) obtained from the World Governance Indicators. We capture climate disclosure regulation using the Disclosure Index, Regulation Stringency, and Enforcement Strength variables.

Z(in all models) represents the vector of control variables. We include two categories of control variables: corporate governance characteristics and firm-level characteristics. Our selection of

control variables follows prior research examining the determinants of corporate environmental policies, and corporate governance structures (Pankratz et al., 2022; Gipper et al., 2026; King et al., 2026).

First, we include governance-related variables capturing the internal oversight structures responsible for sustainability and ESG policies. We control for the presence of a CSR Committee, defined as a dummy variable equal to one if the firm has a board-level corporate social responsibility or sustainability committee overseeing environmental and social governance matters, and zero otherwise. We also include ESG-linked executive compensation (ESG_Linked_Pay), measured as a dummy variable equal to one if executive compensation contracts explicitly incorporate ESG performance metrics, and zero otherwise. In addition, we control for audit quality using Big4 Auditor, an indicator variable equal to one if the firm is audited by one of the four largest international audit firms (Deloitte, PwC, EY, or KPMG), and zero otherwise.

We include firm-level characteristics that may influence corporate climate strategies and environmental governance. Firm size (Size) is measured as the natural logarithm of total assets and captures the scale of firm operations. Profitability (ROA) is measured as net income divided by total assets and reflects firms' financial performance. Financial leverage (Leverage) is measured as the ratio of total debt to total assets and captures firms' financial structure and risk exposure. Finally, we control capital intensity (Capital_Intensity), measured as property, plant, and equipment divided by total assets.

We control industry effects based on two-digit GICS industry classifications and year effects. Standard errors are clustered at the firm level to account for heteroskedasticity and within-firm correlation in the error terms (Petersen, 2008).

4.1. Descriptive Statistics

Table 2 reports descriptive statistics for the variables used in empirical analysis. The average Strategic Alignment Gap, defined as the difference between firms' climate commitments and implementation practices, is 0.15 with a standard deviation of 0.22. Figure 1 illustrates the cross-country distribution of the strategic alignment gap. The figure reveals substantial variation across countries, indicating that firms' ability to translate climate commitments into implementation differs significantly across institutional environments.

The Commitment Index has an average value of 0.49, indicating that firms meet roughly half of the benchmark criteria related to emissions reduction commitments. In contrast, the Implementation Index has a lower mean of 0.35, suggesting weaker integration of climate objectives into corporate strategy and governance. This difference provides preliminary evidence of a systematic divergence between climate ambition and implementation.

The average Regulatory Quality is 1.22, while Rule of Law averages 0.98, indicating that many firms are headquartered in relatively strong institutional environments. The Regulation Stringency index averages 2.34 on a scale from 0 to 4, reflecting differences in the strength of national climate disclosure regulations. In addition, approximately 46% of firm - year observations are in countries with strong enforcement regimes, where disclosure requirements are mandatory and issued by government authorities. Similarly, the Disclosure Index, capturing national climate disclosure frameworks, has a mean value of 0.49.

Turning to firm characteristics, the average firm size (log total assets) is 24.83. The mean ROA is 5%, while average leverage is 0.64, suggesting that debt financing represents a substantial share of firm capital structures. Capital intensity averages 0.85, consistent with the presence of firms

operating in capital-intensive industries. Approximately 82% of firms maintain a board-level CSR or sustainability committee, while 66% link executive compensation to ESG performance metrics. Furthermore, 84% of firms are audited by Big Four accounting firms, reflecting strong external monitoring and reporting standards. Table 3 reports the pairwise correlations among the main variables.

******insert figure 1 about here******

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5. Results and discussion

5.1. Institutional Governance, Climate Disclosure, and the Strategic Alignment Gap

Table 4 reports the baseline results testing H1, which predicts that institutional environments shape the alignment between climate commitments and implementation

Consistent with our theoretical framework, stronger institutional governance is associated with a larger strategic alignment gap. In columns (1) and (2), regulatory quality is positively related to the alignment gap and statistically significant at the 5% and 1% levels ($\beta = 0.0537$, $p < 0.05$; $\beta = 0.0559$, $p < 0.01$). This finding suggests that firms operating in stronger regulatory environments tend to exhibit larger discrepancies between climate commitments and implementation. One possible explanation is that stronger regulatory environments increase stakeholders and institutional pressures for firms to make ambitious climate commitments, while implementation adjustments occur more gradually.

Columns (3) and (4) show similar results for rule of law. The coefficient is positive and significant at the 1% level in both specifications ($\beta = 0.0687$ and $\beta = 0.0676$). This evidence suggests that stronger legal institutions and enforcement mechanisms are associated with greater divergence

between firms' climate commitments and implementation outcomes. Within our theoretical expectations, stronger legal institutions may intensify monitoring and disclosure expectations, encouraging firms to signal commitment while implementation processes remain incomplete.

Columns (5) and (6) examine climate disclosure transparency. While the coefficient on the disclosure index is positive but insignificant in column (5), it becomes positive and significant at the 5% level once industry and year fixed effects are included ($\beta = 0.0899$, $p < 0.05$). This result indicates that greater transparency in climate disclosure may expose inconsistencies between firms stated commitments and their implementation progress, thereby increasing the observed strategic alignment gap.

Among the control variables, firm size is negatively related to the alignment gap in several specifications, suggesting that larger firms may possess greater organizational resources to translate commitments into implementation. Capital intensity is also negatively and significantly associated with the alignment gap in the baseline specifications, indicating that firms with higher levels of tangible investment may face fewer constraints in implementing climate-related initiatives. Finally, the coefficient on Big4 auditor is positive and significant in the baseline models, consistent with the interpretation that stronger external monitoring may reveal discrepancies between commitments and implementation.

******insert table 4 about here******

5.2. Climate Regulation Stringency, Enforcement Strength, and the Strategic Alignment Gap

Table 5 presents results testing H2, which predicts that stronger regulatory frameworks reduce the alignment gap.

Consistent with our theoretical framework, stronger enforcement is associated with a smaller alignment gap. In columns (1) and (2), the coefficient on enforcement strength is negative and statistically significant ($\beta = -0.0389$, $p < 0.10$; $\beta = -0.0484$, $p < 0.01$). This result suggests that stricter monitoring and enforcement mechanisms increase the credibility of climate commitments and incentivize firms to align implementation more closely with stated targets.

A similar pattern emerges for regulatory stringency. While the coefficient is negative but insignificant in column (3), it becomes negative and statistically significant once industry and year fixed effects are included ($\beta = -0.0257$, $p < 0.01$). This finding indicates that more stringent climate regulations are associated with a narrower gap between commitments and implementation, consistent with stronger policy environments promoting more credible corporate climate action.

******insert table 5 about here******

5.3. Institutional Investors and Climate Commitment - Implementation Alignment

Table 6 reports results testing H3, which examines the role of investor oversight and governance.

The results indicate that institutional ownership is associated with a smaller strategic alignment gap**.** In the baseline specification (column 1), the coefficient on institutional ownership is negative but not statistically significant. However, once firm-level controls are included (column 2), the coefficient becomes negative and statistically significant ($\beta = -0.0026$, $p < 0.01$). This relationship remains stable in the fully specified model (column 3), where the coefficient remains negative and highly significant ($\beta = -0.0029$, $p < 0.01$). These findings suggest that firms with higher levels of institutional ownership exhibit a smaller gap between their climate commitments and implementation.

This result is consistent with the view that institutional investors play a monitoring and governance role in corporate climate strategies**.** Institutional investors often possess greater resources, expertise, and incentives to monitor firms' environmental performance and may therefore exert pressure on firms to ensure that climate commitments are followed by credible implementation. As a result, firms with greater institutional ownership appear more likely to translate stated climate ambitions into concrete actions, reducing the divergence between commitments and implementation.

******insert table 6 about here******

5.4. **Institutional Drivers of Commitment–Implementation Divergence**

5.4.1. Institutional Governance, Climate Commitments, and Implementation

Table 7 examines how institutional governance affects firms' climate commitments and implementation separately, providing insight into the mechanism underlying the strategic alignment gap. Across all panels, institutional governance is positively and significantly associated with both dimensions of corporate climate action. However, the effect on commitments is consistently larger than the effect on implementation.

In Panel A, regulatory quality increases both the commitment index and the implementation index ($\beta = 0.1667$ and $\beta = 0.1097$, both $p < 0.01$), with the magnitude of the effect on commitments substantially larger. Panel B shows a similar pattern for rule of law, which is positively related to commitments ($\beta = 0.1633$, $p < 0.01$) and implementation ($\beta = 0.0944$, $p < 0.01$), again with a stronger effect on commitments. Panel C reports results for disclosure transparency, where the coefficients are positive and highly significant for both commitments ($\beta = 0.3740$, $p < 0.01$) and implementation ($\beta = 0.2856$, $p < 0.01$) but remain larger for commitments.

Taken together, these findings suggest that stronger institutional governance and transparency mechanisms primarily stimulate firms' climate commitments, while implementation responds more gradually. This asymmetry provides a plausible mechanism for the strategic alignment gap observed in our baseline results: institutional pressures encourage firms to signal ambitious climate targets, but translating those commitments into concrete actions takes more time.

******insert table 7 about here******

5.4.2. Institutional Quality, Climate Policy, and the Strategic Alignment Gap

Table 8 examines whether climate policy stringency and disclosure transparency moderate the relationship between institutional quality and the strategic alignment gap between firms' climate commitments and implementation. Columns (1) – (2) focus on the interaction between institutional quality and climate regulation stringency, while columns (3) – (4) examine the moderating role of disclosure transparency.

Consistent with the baseline results, institutional quality is positively associated with the strategic alignment gap. In column (1), regulatory quality is positively and significantly related to the alignment gap ($\beta = 0.1630$, $p < 0.01$), while rule of law also exhibits a positive association in column (2) ($\beta = 0.1206$, $p < 0.10$). These findings suggest that stronger institutional environments increase the divergence between firms' climate commitments and implementation, consistent with the argument that stronger institutions encourage firms to adopt more ambitious climate targets.

However, this relationship weakens when climate regulation becomes more stringent. The interaction between regulatory quality and regulation stringency is negative and statistically significant ($\beta = -0.0414$, $p < 0.05$), indicating that stronger regulatory frameworks mitigate the positive relationship between institutional quality and the alignment gap. Figure 2 illustrates this

moderating effect. When regulatory stringency is low, higher regulatory quality is associated with a substantial increase in the strategic alignment gap. In contrast, when climate regulation is more stringent, the relationship between regulatory quality and the alignment gap becomes nearly flat. This pattern suggests that stronger climate regulatory frameworks constrain the extent to which ambitious climate commitments diverge from actual implementation.

Columns (3) – (4) examine the moderating role of disclosure transparency. The baseline coefficients for regulatory quality and rule of law remain positive and statistically significant ($\beta = 0.0889$ and $\beta = 0.0900$, both $p < 0.01$), reinforcing the earlier finding that stronger institutional environments are associated with a larger alignment gap. However, the interaction between regulatory quality and disclosure transparency is negative and statistically significant ($\beta = -0.1048$, $p < 0.05$), suggesting that greater transparency reduces the divergence between climate commitments and implementation. As illustrated in Figure 3, the positive relationship between regulatory quality and the alignment gap becomes weaker when disclosure transparency is high, indicating that enhanced transparency may increase scrutiny and accountability, thereby encouraging firms to align implementation more closely with their stated climate commitments.

Taken together, the results suggest that although stronger institutional environments encourage firms to adopt ambitious climate commitments, stronger climate regulatory frameworks and greater disclosure transparency reduce the divergence between commitments and implementation. These findings highlight the role of policy enforcement and transparency mechanisms in improving the credibility of corporate climate strategies.

******insert table 8 about here******

******insert figure 2 and 3 about here******

5.5. Additional Analyses

5.5.1. **Institutional Determinants of the Disclosure - Action Gap**

To further examine whether institutional environments influence the relationship between climate transparency and implementation, we analyze the determinants of the Disclosure-Action Gap. This variable captures the difference between firms' climate disclosure practices and the extent to which climate commitments are operationalized within the firm. Formally, the disclosure–action gap is defined as the difference between the disclosure index and the implementation index. Higher values indicate that firms disclose more climate-related information relative to the degree of implementation of climate strategies.

We estimate panel regressions where the disclosure–action gap is regressed on country-level institutional variables, including Regulatory Quality, Rule of Law, and Regulatory Stringency. Table 9 reports the results. Both Regulatory Quality and Rule of Law exhibit positive and statistically significant coefficients, indicating that firms located in stronger institutional environments tend to exhibit a larger gap between climate disclosure and implementation. This finding suggests that institutional contexts emphasizing transparency and accountability may encourage firms to expand climate reporting before fully implementing operational decarbonization strategies. In contrast, the coefficient on regulatory stringency is negative but statistically insignificant. Overall, the results indicate that stronger institutional environments are associated with greater climate transparency, although disclosure may advance more rapidly than implementation.

******insert table 9 about here******

5.5.2. Institutional Persistence in the Climate Commitment–Implementation Gap

Table 10 reports regression results examining the lagged effects of institutional quality and climate disclosure transparency on the strategic alignment gap between firms' climate commitments and implementation. The models include one-year and two-year lagged values of regulatory quality, rule of law, and the disclosure index.

The results indicate that the main findings remain robust when lagged explanatory variables are used. Regulatory quality remains positive and statistically significant for both the one-year and two-year lags ($\beta = 0.0594$ and $\beta = 0.0476$). Similarly, rule of law exhibits positive and significant effects across both lag specifications ($\beta = 0.0656$ and $\beta = 0.0482$). Climate disclosure transparency is also positively associated with the strategic alignment gap, with significance at conventional levels for both lag structures. Overall, the lagged specifications suggest that institutional environments and disclosure practices influence firms' commitment–implementation gap with persistent effects over time.

******insert table 10 about here******

5.5.3. Sector heterogeneity analysis

To further examine the mechanisms underlying our main results, we test whether the relationship between institutional quality and the strategic alignment gap varies across industry types. Firms operating in carbon-intensive sectors often face greater technological constraints and higher adjustment costs when translating climate commitments into operational emissions reductions. As a result, institutional pressures may affect these firms differently compared to firms in less carbon-intensive industries.

To capture this heterogeneity, we construct an indicator (High_emission**)** identifying firms in carbon-intensive sectors and interact with Regulatory Quality. The results are reported in table 11. Our findings show that regulatory quality is positively associated with the strategic alignment gap. However, the interaction between regulatory quality and high-emission sectors is negative and statistically significant, indicating that the institutional effect is weaker in carbon-intensive industries.

These findings suggest that sector-specific technological constraints moderate the translation of institutional pressures into operational climate strategies. Consistent with our theoretical framework, this evidence supports the view that the alignment gap reflects structural implementation challenges rather than purely symbolic disclosure behavior.

******insert table 11 about here******

6. Conclusion

This paper examines the alignment between firms' climate commitments and their implementation. We introduce the Strategic Alignment Gap, defined as the difference between firm stated climate ambitions and the extent to which those commitments are embedded in governance structures and operational practices. Using a global firm-level sample, we analyze how institutional quality, climate policy frameworks, disclosure transparency, and investor oversight shape the credibility of corporate climate strategies.

Our findings provide three key insights. First, stronger institutional environments are associated with a larger alignment gap, as they stimulate more ambitious climate commitments while implementation adjusts more gradually. Second, stricter climate regulation and stronger

enforcement reduce this gap, indicating that policy frameworks enhance the translation of commitments into action. Third, greater disclosure transparency and institutional ownership reduce misalignment by strengthening monitoring and accountability. From this we conclude that institutional environments promote climate ambition, but only regulation, transparency, and investor oversight ensure that commitments translate into implementation.

This study contributes to literature in several ways. Theoretically, it advances institutional and decoupling perspectives by introducing the Strategic Alignment Gap and showing that misalignment reflects structural tensions between transnational governance and domestic institutional environments, rather than purely symbolic behavior. In doing so, we extend research on institutional complexity by highlighting how firms navigate competing pressures across global and local institutional environments. Our findings suggest that transnational governance introduces an additional layer of complexity, where firms face standardized expectations at the global level while remaining embedded in heterogeneous domestic contexts. This multi-level tension provides a structural explanation for the persistence of decoupling in corporate climate strategies.

This study offers important implications for managers, investors, and policymakers seeking to enhance the credibility of corporate climate strategies. First, our findings suggest that adopting ambitious climate commitments is not sufficient to ensure substantive progress. Managers must recognize that commitments alone may increase scrutiny and expectations without automatically translating into operational change. Bridging the gap between commitments and implementation requires aligning internal governance structures, capital allocation decisions, and incentive systems with climate objectives.

Second, for investors and stakeholders, our results highlight the importance of moving beyond disclosure-based assessments of corporate climate performance. While commitments and disclosures provide valuable signals, they may not fully reflect underlying implementation. As a result, greater emphasis should be placed on monitoring mechanisms and outcome-based metrics that capture actual decarbonization efforts.

Third, for policymakers, the findings underscore the importance of enforcement-oriented regulation. While institutional quality and transparency promote commitment adoption, they do not necessarily ensure implementation. Regulatory mechanisms that enhance monitoring, verification, and accountability are critical for reducing the gap between commitments and actions. In this sense, effective climate governance requires not only encouraging ambition but also strengthening enforcement to ensure credibility.

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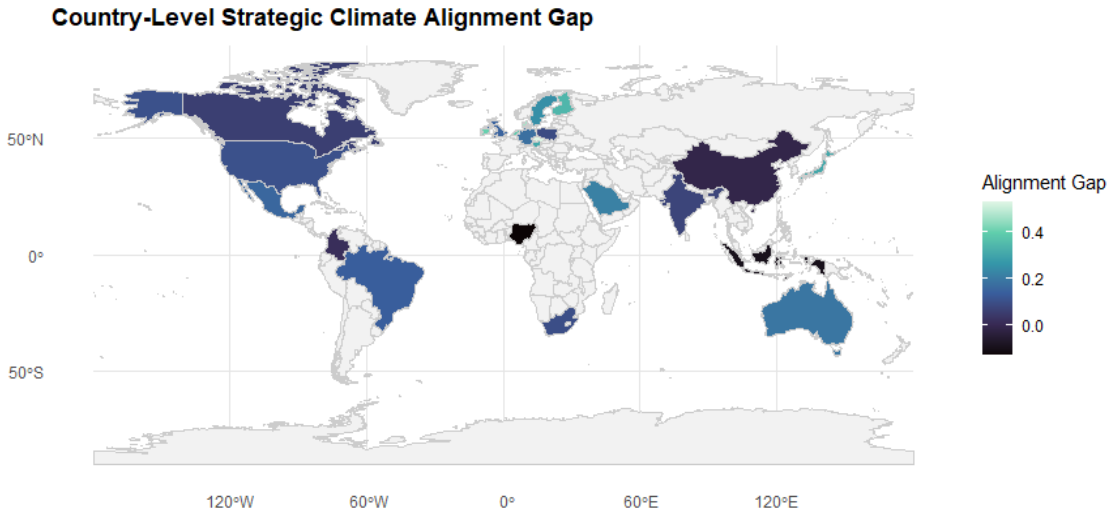


Figure 1. Cross-Country Variation in the Strategic Alignment Gap. The figure is constructed by aggregating firm-level measures to the country level using the average Strategic Alignment Gap of multinational enterprises headquartered in each country over the sample period (2021–2025).

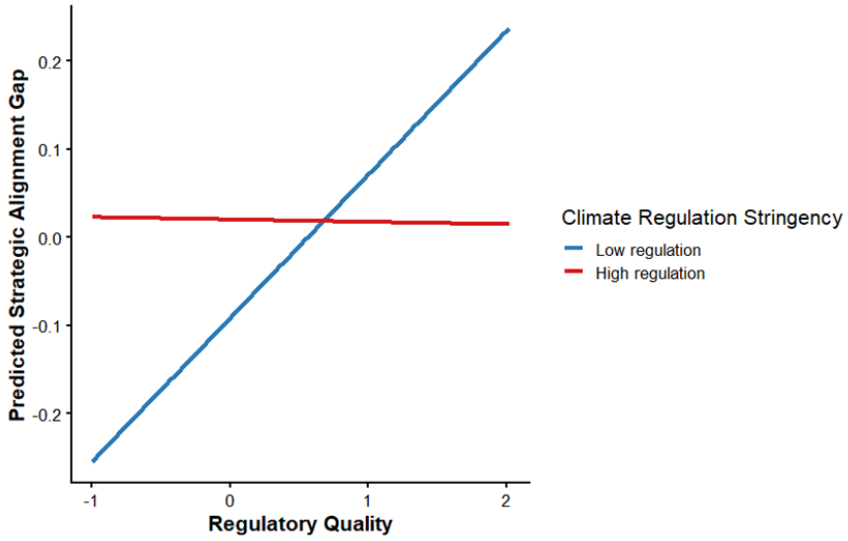


Figure 2: Moderating Effect of Climate Regulation

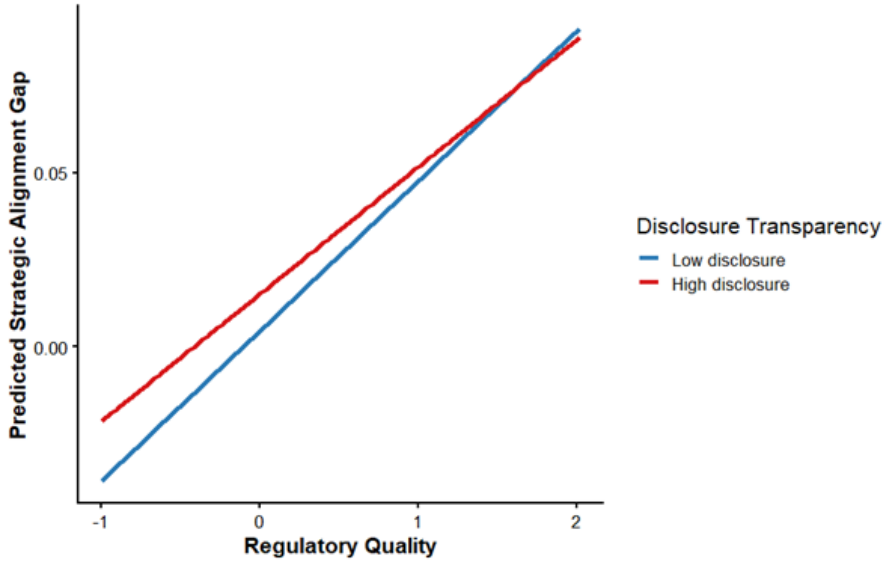


Figure 3: Moderating Effect of Disclosure Transparency

Table 1. Variable descriptions

Variable	Definition	Source
Strategic_Alignment_Gap	Difference between the climate ambition index and the implementation index: $Commitment_Index_{i,t} - Implementation_Index_{i,t}$.	CA100+
Commitment_Index (Ambition)	Firm-level climate ambition index constructed as the equally weighted average of standardized indicators measuring net-zero commitments and interim emissions targets for firm *i* in year *t*.	CA100+
Implementation_Index	Firm-level climate implementation index constructed as the equally weighted average of standardized indicators measuring operational and governance practices related to decarbonization for firm *i* in year *t*.	CA100+
Disclosure_Index	Climate disclosure transparency index constructed as the average of CA100+ Indicators 9 (Just Transition) and 10 (TCFD Disclosure) for firm *i* in year *t*.	CA100+
Disclosure–Action Gap	Difference between disclosure and implementation indices for firm *i* in year *t*, measuring misalignment between reported commitments and operational actions.	CA100+
Regulatory_Quality	Country-level regulatory quality index measured as the World Governance Indicators (WGI) score in year *t*.	WGI
Rule_of_Law	Country-level rule of law index measured as the WGI score in year *t*.	WGI

Reg_Stringency	Index (0–4) constructed as the sum of indicators reflecting the strictness of climate disclosure regulation in a country-year.	Hand-collected
Enforcement_Strong	Indicator equal to 1 if climate disclosure regulation is mandatory, issued by a government authority, and does not follow a comply-or-explain approach; 0 otherwise.	Hand-collected
Size	Firm size measured as the natural logarithm of total assets for firm *i* in year *t*.	Refinitiv
ROA	Return on assets measured as net income divided by total assets for firm *i* in year *t*.	Refinitiv
Leverage	Financial leverage measured as total debt divided by total assets for firm *i* in year *t*.	Refinitiv
Capital_Intensity	Capital intensity measured as property, plant, and equipment divided by total assets for firm *i* in year *t*.	Refinitiv
CSR_Committee	Indicator equal to 1 if the firm has a board-level CSR or sustainability committee; 0 otherwise.	Refinitiv
ESG_Linked_Pay	Indicator equal to 1 if executive compensation is linked to ESG performance metrics; 0 otherwise.	Refinitiv
Big4_Auditor	Indicator equal to 1 if the firm is audited by Deloitte, PwC, EY, or KPMG; 0 otherwise.	Refinitiv
Inst_Ownership	Institutional ownership measured as the proportion of shares held by institutional investors for firm *i* in year *t*.	Refinitiv

Table 2. Descriptive Statistics

	N	Mean	SD	p25	Median	p75	Min	Max
Strategic_Alignment_Gap	656	0.146	0.222	0	0.125	0.25	-0.25	0.75
Commitment_Index (Ambition)	656	0.493	0.265	0.375	0.5	0.625	0	1
Implementation_Index	656	0.348	0.170	0.25	0.375	0.5	0	0.75
Disclosure_Index	656	0.488	0.251	0.375	0.5	0.5	0	1
Disclosure–Action Gap	656	0.14	0.217	0	0.125	0.25	-0.5	0.875
Regulatory_Quality	656	1.22	0.562	1.286	1.352	1.464	-0.996	2.021
Rule_of_Law	656	0.977	0.635	0.962	1.03	1.47	-1.154	2.071
Reg_Stringency	656	2.343	1.591	0	3	4	0	4
Enforcement_Strong	656	0.459	0.499	0	0	1	0	1
Size	656	24.834	1.084	24.206	24.855	25.6	21.709	27.214

ROA	656	0.054	0.055	0.023	0.046	0.077	-0.099	0.25
Leverage	656	0.642	0.164	0.541	0.642	0.734	0.221	1.11
Capital intensity	656	0.848	0.369	0.588	0.848	1.04	0.141	1.79
CSR_Committee	656	0.822	0.383	1	1	1	0	1
ESG_Linked_Pay	656	0.66	0.474	0	1	1	0	1
Big4_Auditor	656	0.841	0.366	1	1	1	0	1
Inst_Ownership	575	30.106	16.818	18.245	27.282	44.164	0.0104	83.672

Table 3: Correlation Matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) Strategic_Alignment_Gap	1.000												
(2) Commitment_Index (Ambition)	0.770***	1.000											
(3) Implementation_Index	-0.113***	0.542***	1.000										
(4) Disclosure_Index	0.094**	0.415***	0.523***	1.000									
(5) Regulatory_Quality	0.216***	0.429***	0.385***	0.347***	1.000								
(6) Rule_of_Law	0.266***	0.466***	0.378***	0.346***	0.943***	1.000							
(7 Reg_Stringency	-0.001	-0.206***	-0.331***	-0.168***	-0.044	-0.070*	1.000						
(8) Enforcement_Strong	-0.038	-0.189***	-0.254***	-0.123***	-0.005	-0.058	0.737***	1.000					
(9) Size	-0.031	0.100**	0.190***	0.155***	0.061	0.071*	0.049	0.026	1.000				
(10) ROA	-0.112***	-0.188***	-0.140***	-0.101***	-0.128***	-0.153***	0.041	0.045	-0.068*	1.000			
(11) Leverage	0.157***	0.239***	0.160***	0.114***	0.171***	0.128***	0.104***	0.219***	0.210***	-0.273***	1.000		
(12) Capital intensity	-0.166***	-0.117***	0.032	0.071*	-0.111***	-0.127***	-0.040	-0.036	-0.088**	0.097**	-0.264***	1.000	
(13) Inst_Ownership	-0.190***	-0.127***	0.071*	-0.092**	0.112***	-0.016	0.045	0.227***	-0.046	0.028	0.118***	-0.067*	1.000

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 4. The Relationship Between Institutional Governance, Climate Disclosure, and the Strategic Alignment Gap

	Strategic Alignment Gap					
	(1)	(2)	(3)	(4)	(5)	(6)
Regulatory_Quality	0.0537**	0.0559***				
	(0.0215)	(0.0213)				
Rule_of_Law			0.0687***	0.0676***		
			(0.0192)	(0.0188)		
Disclosure_Index					0.0555	0.0899**
					(0.0432)	(0.0435)
Size	-0.0217*	-0.0097	-0.0223**	-0.0099	-0.0244**	-0.0158
	(0.0111)	(0.0132)	(0.0107)	(0.0128)	(0.0117)	(0.0134)
ROA	-0.2558	-0.1991	-0.2040	-0.1594	-0.2827	-0.2110
	(0.2105)	(0.1879)	(0.2087)	(0.1858)	(0.2182)	(0.1963)
Leverage	0.1319	0.0703	0.1396*	0.0822	0.1434*	0.0638
	(0.0818)	(0.0804)	(0.0797)	(0.0782)	(0.0841)	(0.0818)
Capital_Intensity	-0.0794**	0.0249	-0.0732**	0.0246	-0.0910**	0.0240
	(0.0345)	(0.0328)	(0.0340)	(0.0325)	(0.0354)	(0.0330)
CSR_Committee	0.0549*	0.0267	0.0548*	0.0253	0.0372	0.0116
	(0.0318)	(0.0347)	(0.0308)	(0.0345)	(0.0321)	(0.0350)
ESG_Linked_Pay	0.0240	0.0108	0.0208	0.0076	0.0370	0.0237
	(0.0307)	(0.0303)	(0.0298)	(0.0293)	(0.0310)	(0.0297)
Big4_Auditor	0.0724***	0.0030	0.0686***	0.0011	0.0913***	0.0196
	(0.0251)	(0.0275)	(0.0246)	(0.0266)	(0.0256)	(0.0269)
Constant	0.4930*	0.0499	0.5007**	0.0557	0.5943**	0.2236
	(0.2646)	(0.3170)	(0.2541)	(0.3057)	(0.2735)	(0.3208)
Year fixed effects	No	Yes	No	Yes	No	Yes
Industry fixed effects	No	Yes	No	Yes	No	Yes
Observations	656	656	656	656	656	656
R^2	0.1231	0.3042	0.1414	0.3188	0.1115	0.2971

Note: This table reports OLS regressions examining the relationship between institutional governance and the strategic alignment. Columns (1) – (2) include Regulatory Quality, columns (3) – (4) Rule of Law, and columns (5) – (6) Climate Disclosure Transparency. All models include firm-level controls. Standard errors are clustered at the firm level to account for potential correlation in institutional governance across firms within the same country. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 5. The Relationship Between Climate Regulation Stringency, Enforcement Strength, and the Strategic Alignment Gap

	Strategic Alignment Gap			
	(1)	(2)	(3)	(4)
Enforcement_strong	-0.0389	-0.0484*		
	(0.0267)	(0.0272)		
Reg_stringency			-0.0118	-0.0257***
			(0.0087)	(0.0081)
Size	-0.0230*	-0.0137	-0.0228*	-0.0135
	(0.0118)	(0.0139)	(0.0119)	(0.0138)
ROA	-0.2662	-0.2030	-0.2805	-0.2043
	(0.2188)	(0.1973)	(0.2168)	(0.1966)
Leverage	0.1829**	0.1090	0.1645**	0.0938
	(0.0819)	(0.0851)	(0.0818)	(0.0830)
Capital_Intensity	-0.0854**	0.0316	-0.0877**	0.0355
	(0.0349)	(0.0340)	(0.0348)	(0.0335)
CSR_Committee	0.0530	0.0230	0.0523	0.0173
	(0.0344)	(0.0371)	(0.0353)	(0.0358)
ESG_Linked_Pay	0.0354	0.0241	0.0392	0.0262
	(0.0318)	(0.0310)	(0.0317)	(0.0306)
Big4_Auditor	0.0904***	0.0154	0.0990***	0.0216
	(0.0266)	(0.0280)	(0.0272)	(0.0277)
Constant	0.5610**	0.1898	0.5728**	0.2265
	(0.2761)	(0.3292)	(0.2783)	(0.3302)
Year fixed effects	No	Yes	No	Yes
Industry fixed effects	No	Yes	No	Yes
Observations	656	656	656	656
R^2	0.1145	0.2981	0.1141	0.3113

Note: This table reports OLS regressions examining the relationship between climate policy enforcement strength, regulatory stringency, and the strategic alignment gap. Columns (1) – (2) include Enforcement Strength, while columns (3) – (4) include Climate Regulation Stringency. All models include firm-level controls. Standard errors are clustered at the firm level to account for potential correlation in climate policy environments across firms. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 6. The Relationship Between Institutional Investors and Climate Commitment–Implementation Alignment

	Strategic_Alignment_Gap		
	(1)	(2)	(3)
Inst_ownership	-0.0009	-0.0026***	-0.0029***
	(0.0008)	(0.0009)	(0.0008)
Size		-0.0291**	-0.0206
		(0.0130)	(0.0158)
ROA		-0.3111	-0.1988
		(0.2335)	(0.2074)
Leverage		0.2299**	0.1414
		(0.0917)	(0.0932)
Capital_Intensity		-0.0938**	0.0595
		(0.0375)	(0.0364)
CSR_Committee		-0.0030	0.0111
		(0.0487)	(0.0468)
ESG_Linked_Pay		0.0382	0.0337
		(0.0351)	(0.0328)
Big4_Auditor		0.1455***	0.0882**
		(0.0456)	(0.0433)
Year fixed effects	Yes	No	Yes
Industry fixed effects	Yes	No	Yes
Observations	575	575	575
R^2	0.0046	0.1180	0.3231

Note: This table reports OLS regressions examining the relationship between institutional ownership and the strategic alignment gap. Column (1) includes year and industry fixed effects, column (2) adds firm-level controls, and column (3) reports the fully specified model including controls and fixed effects. Standard errors are clustered at the firm level. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 7. The Relationship Between Institutional Governance, Climate Commitments, and Implementation

Panel A: Regulatory Quality		
	Commitment Index	Implementation Index
Regulatory Quality	0.1667***	0.1097***
	(0.0290)	(0.0204)
Constant	-0.9976***	-1.0108***
	(0.3535)	(0.2353)
Firms Controls	Yes	Yes
Year fixed effects	Yes	Yes
Industry fixed effects	Yes	Yes
Observations	656	656
R^2	0.4364	0.4288
Panel B: Rule of Law		
Rule of Law	0.1633***	0.0944***
	(0.0277)	(0.0177)
Constant	-0.9287***	-0.9479***
	(0.3333)	(0.2302)
Firms Controls	Yes	Yes
Year fixed effects	Yes	Yes
Industry fixed effects	Yes	Yes
Observations	656	656
R^2	0.4644	0.4293
Panel C: Disclosure Transparency		
Disclosure_Index	0.3740***	0.2856***
	(0.0515)	(0.0357)
Constant	-0.3889	-0.5765**
	(0.3687)	(0.2258)
Firms Controls	Yes	Yes
Year fixed effects	Yes	Yes
Industry fixed effects	Yes	Yes
Observations	656	656
R^2	0.4376	0.4644

Note: This table reports OLS regressions examining how institutional governance influences firms' climate commitments and implementation separately. Panel A reports the results for Regulatory Quality, Panel B for Rule of Law, and Panel C for Disclosure Transparency. In each panel, column (1) uses the Commitment Index as the dependent variable, while column (2) uses the Implementation Index. All models include firm-level controls, as well as industry and year fixed effects to account for sectoral heterogeneity and time-specific shocks. Standard errors are reported in parentheses and are clustered at the firm level to account for potential correlation in climate governance practices within firms over time. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 8. The Relationship Between Institutional Quality, Climate Policy, and Strategic Alignment Gap

	Strategic Alignment Gap			
	(1)	(2)	(3)	(4)
Regulatory_Quality	0.1630***		0.0889***	
	(0.0492)		(0.0268)	
Rule_of _Law		0.1206*		0.0900***
		(0.0697)		(0.0249)
Reg_stringency	0.0280	-0.0024		
	(0.0239)	(0.0246)		
Disclosure_Index			0.1701**	0.0898
			(0.0730)	(0.0605)
Regulatory_Quality*Reg_stringency	-0.0414**			
	(0.0187)			
Rule_of _Law*Reg_stringency		-0.0204		
		(0.0237)		
Regulatory_Quality*Disclosure_Index			-0.1048**	
			(0.0530)	
Rule_of _Law*Disclosure_Index				-0.0647
				(0.0483)
Firm Controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Observations	656	656	656	656
R^2	0.3304	0.3375	0.3121	0.3226

Note: This table reports OLS regressions examining the relationship between institutional quality, climate policy mechanisms, and the strategic alignment gap. Columns (1)–(2) include interactions between institutional quality (Regulatory Quality and Rule of Law) and climate regulation stringency, while columns (3)–(4) examine interactions with disclosure transparency. All models include firm-level controls, industry fixed effects, and year fixed effects. Standard errors are clustered at the firm level. *, **, and *** denote statistical significance at the 10%, 5%, and 1%

Table 9. The Relationship Between Institutional Determinants of the Disclosure–Action Gap

	Disclosure–Action Gap		
	(1)	(2)	(3)
Regulatory_Quality	0.0377**		
	(0.0163)		
Rule_of _Law		0.0319**	
		(0.0140)	
Reg_stringency			-0.0090
			(0.0062)
Constant	-0.1003	-0.0779	-0.0071
	(0.2295)	(0.2286)	(0.2292)
Firm Controls	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes
Observations	656	656	656
R^2	0.1724	0.1722	0.1681

Note: This table reports OLS regressions examining the relationship between country-level institutional characteristics and the Disclosure–Action Gap. Column (1) reports results for Regulatory Quality, column (2) for Rule of Law, and column (3) for Regulation Stringency. All specifications include firm-level control variables, as well as industry and year fixed effects. Standard errors clustered at the firm level are reported in parentheses. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 10. The Relationship Between Lagged Effects of Institutional Quality and Disclosure Regulation on the Strategic Alignment Gap

	Strategic Alignment Gap					
	Lag (1) year	Lag (2) year	Lag (1) year	Lag (2) year	Lag (1) year	Lag (2) year
Regulatory_Quality	0.0594***	0.0476***				
	(0.0199)	(0.0179)				
Rule_of_Law			0.0656***	0.0482***		
			(0.0171)	(0.0159)		
Disclosure_Index					0.0897**	0.0743*
					(0.0421)	(0.0397)
Constant	-0.0962	-0.1412	-0.0762	-0.1240	0.0502	-0.0304
	(0.2856)	(0.2556)	(0.2782)	(0.2538)	(0.2899)	(0.2566)
Firm Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	655	654	655	654	655	654
R^2	0.2978	0.2915	0.3092	0.2960	0.2884	0.2858

Note: This table reports OLS regressions examining the lagged effects of institutional quality and climate disclosure transparency on the Strategic Alignment Gap. Columns (1)–(2) report models including one-year and two-year lagged values of Regulatory Quality, columns (3)–(4) include lagged Rule of Law, and columns (5)–(6) include lagged Disclosure Index. All specifications include firm-level control variables, as well as industry and year fixed effects. Standard errors clustered at the firm level are reported in parentheses. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 11. The Relationship Between Institutional Quality and the Strategic Alignment Gap: Sector Heterogeneity

	Strategic Alignment Gap	
	(1)	(2)
Regulatory_Quality	0.0611**	0.1710***
	(0.0253)	(0.0540)
High_emission	0.0349	0.2024**
	(0.0368)	(0.0951)
Regulatory_Quality*High_emission		-0.1192*
		(0.0621)
Constant	0.1270	0.0201
	(0.3406)	(0.3286)
Firm controls	Yes	Yes
Year fixed effects	Yes	Yes
Industry fixed effects	Yes	Yes
Observations	572	572
R^2	0.3388	0.3434

Note: This table reports OLS regressions examining the relationship between regulatory quality and the strategic alignment gap, and whether this relationship differs across sector types. Column (1) presents the baseline specification including firm controls, year fixed effects, and industry fixed effects. Column (2) introduces an interaction term between Regulatory_Quality and the High_emission sector indicator to test whether institutional effects vary across carbon-intensive industries. Standard errors are clustered at the firm level. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.