

National Net-Zero Legislation and Corporate Asset Allocations

Executive Summary

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Abstract

This study explores how different legislative approaches influence corporate investment behaviours from a microeconomic perspective. By analysing plant-level capital expenditure data across 24 countries, it assesses whether enforceable Net Zero Transition (NZT) laws affect firm-level capital allocation. The results show that stringent NZT laws aiming for 2045 or earlier significantly increase low-carbon investments. Conversely, laws targeting 2050 do not exhibit this effect, although more frequent national NZT reporting enhances the legislation's influence on low-carbon investments. Additionally, companies with more comprehensive NZT disclosures respond more strongly to legislative signals, with a one standard deviation increase in NZT disclosure linked to a 26% rise in green investments. Overall, these findings highlight the critical roles of legislative ambition and corporate transparency in promoting decarbonisation.

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The views expressed in this paper are solely the responsibility of the authors and do not necessarily reflect the opinions of the acknowledged individuals.

Executive summary

Introduction

We investigate the impact of the National net zero transition (NZT) legislation on corporate asset allocation in the electricity industry.

While more countries are legally committing to net-zero emissions in line with the Paris Agreement, doubts remain about how effectively these laws will be implemented and whether countries will deliver on their commitments. This research addresses that gap, providing micro-level evidence on how legislative frameworks can drive capital flows toward climate-aligned assets.

Using a unique dataset that combines plant-level capital expenditure (CAPEX) data with firm-level NZT disclosures across 24 countries between 2014 and 2023, we investigate how the legislation of country-level NZT influences capital flow to renewables. And what is the mechanism through which national NZT legislation affects investment decisions? To identify causal effects, the paper employs a difference-in-differences (DiD) approach, comparing investment patterns before and after the enactment of NZT legislation in countries with different levels of legislative ambition. Two legislative thresholds are analysed: targets set for 2050 or earlier, and more ambitious targets set for 2045 or earlier.

Key findings

First, ambitious national NZT legislation drives investment into renewable power generation.

We find that NZT legislation targeting net-zero by 2045 or earlier results in a statistically significant and economically meaningful increase in capital expenditure on low-carbon power plants. After a national NZT law is enacted with a target by 2045, investment in low-carbon power plants is approximately double (i.e., 103% higher) compared to when no such law exists. In contrast, NZT laws targeting net-zero by 2050 show no significant impact on low-carbon capital expenditure. This result suggests that ambitious NZT laws with earlier targets (2045 or sooner) significantly boost low-carbon investment, with CAPEX nearly doubled.

A pre-trend analysis was conducted to identify the causal effect. Results show no statistically significant increase in low-carbon capital expenditure prior to the legislation, confirming that pre-existing trends do not drive the observed effects. The positive impact becomes significant only after the adoption of NZT laws with earlier targets (2045), supporting a causal relationship between legislation and investment.

We perform a range of tests to confirm the reliability of our findings. We use the number of power plants as an alternative measure for capital allocation, and results confirm a shift in investments from high-carbon to low-carbon technologies after NZT legislation. The effects remain statistically significant in shorter time windows (e.g., two-year horizons), suggesting rapid investment responses in some contexts. When the analysis is limited to solar and wind energy, results also show a significant increase in investment following NZT laws with 2045 or earlier targets, but not for 2050-target laws.

Inclusion of macroeconomic controls (oil prices and electricity consumption) does not alter the results, reinforcing the robustness of the findings.

Second, more frequent national NZT reporting increases firm investment in low carbon projects.

While NZT laws targeting net-zero by 2050 show limited impact on low-carbon capital expenditures, increased reporting frequency improves the policy's effectiveness of legislated targets by 2050. We observe that countries with more frequent NZT progress reporting (for example, biannual) encourage more significant corporate shifts towards renewables – 3.38 times higher low-carbon CAPEX even when national legislation is not ambitious, highlighting that monitoring and accountability mechanisms are vital for enforcing policy credibility. More regular reporting and public updates on national climate progress help build trust and reduce uncertainty, thereby encouraging firms to commit long-term capital to green infrastructure.

Third, firms with stronger NZT disclosures respond more strongly to national climate legislation.

The study also explores how corporate-level NZT disclosure strengthens the effect of national legislation on investment decisions. We find that the positive impact of NZT legislation targeting 2045 is amplified in firms that demonstrate higher levels of net-zero disclosure. A one standard deviation increase in corporate NZT disclosure is associated with a 26% increase in capital flow to low-carbon power plants. Among the four dimensions of disclosure analysed, NZT planning, financial support, and policy implementation are the strongest predictors of increased investment. This finding suggests that corporate transparency enhances responsiveness. Firms that publicly commit to clear and measurable transition plans are more likely to act on climate laws.

Table 1. The impact of national NZT legislation

<i>The impact of National NZT legislation on capital flow between high carbon and low carbon power plants</i>		
	Coefficient	Economic significance (impact on CAPEX)
NZTStatus1*low carbon	-0.061	
NZTStatus2*low carbon	+0.706***	+103%
<i>The mediating role of national NZT reporting on the relation between NZT legislation and low carbon investments.</i>		
NZTStatus1*national reporting	+1.220***	+238%
NZTStatus2*national reporting	+0.454***	+57.5%
<i>The mediating role of corporate NZT disclosure on the relation between NZT legislation and low carbon investments</i>		
NZTStatus1*firm disclosure	-0.023	
NZTStatus2*firm disclosure	+0.061***	+26%

NZTStatus1 equals one if the legislated NZT target is set for 2050 or earlier. NZTStatus2 equals one if the legislated NZT target is set for 2045 or earlier.

Policy implications

Governments aiming to mobilise private capital for climate goals should prioritise ambitious, time-bound, legally binding targets around 2045. The implementation features, such as disclosure norms and reporting frequency, determine how strongly these laws shape investment.

Policymakers should legislate complementary corporate net zero disclosures at regular intervals. Corporate NZT disclosures aligned with frameworks such as TCFD and ISSB, particularly on transition plans, financial alignment, and governance, are significantly more responsive to national climate laws.

Establishing a biannual or quarterly national NZT progress reporting mechanism is equally important. Frequent and transparent national reporting (more than once annually) amplifies the effect of NZT legislation on corporate investment. Policymakers should use these updates to reinforce policy credibility and ensure that firms align their internal reporting timelines and metrics with national targets.

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