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Highlights

- Donald Trump's election threatens the fight against climate change;
- How did the U.S. stock market react to the latest presidential elections?;
- We highlight a heterogeneous investor response across sectors;
- We highlight positive reactions in Energy, Financials and Industrials sectors;
- Firms with better environmental scores performed worse.

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Political elections and market reactions: the ‘Trump effect’ on green stocks

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Abstract

The election of Donald Trump as the 45th president of the United States and his sceptical positions on climate threaten the fight against climate change, potentially weakening investors’ green concerns. Through an event study approach, we aim to analyse the reaction of the U.S. stock market to the latest presidential election, exploring the investors’ reactions across sectors. We find a strong heterogeneous reaction across sectors. Moreover, we show that the worst performance in the short period is attributable to companies with better performance on environmental issues, which could mean an adjustment of investors’ assessment criteria in anticipation of President Trump’s anti-climate policies, reduced transition risk for "brown" firms and lower benefits for firms excelling in environmental performance.

Keywords: Political elections; ESG; Environmental performance; stock market; Event study

JEL classifications: G10; G14; G18; Q54

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1. Introduction

Financial and non-financial companies are increasingly involved in reducing their environmental impact (Du, 2015), driven by growing sensitivity to climate change (Tedeschi et al., 2024), policy and intergovernmental initiatives (Monasterolo & De Angelis, 2020) and domestic political structures (Detomasi, 2008). Social and environmental initiatives often gain importance when they align with elected officials' priorities (Detomasi, 2008; Bonardi, 2005), whose policies can alter markets' behaviour (Vuchelen et al., 2003; Pantzalis et al., 2000). In particular, Presidential elections may prompt investors to rationally adjust their portfolio choices, purchasing shares of companies likely to benefit from the winning party's future policies while selling shares of companies that may face challenges (Shen et al., 2017; Alesina, 1987).

Both the literature and public opinion recognize that left- and right-wing parties typically adopt different approaches to environmental issues, with the former prioritising environmental protection (Carlitz & Povitkina, 2021; Neumayer, 2004). President Trump, as a Republican, aligns with the right of the U.S. political spectrum and holds extreme views on climate change. His first presidency, from 2017 to 2021, was seen as a setback in climate action (Mukanjari & Sterner, 2024). Now he has reiterated his intention to delete climate policies¹, defining climate change as “a big hoax”², and experts perceive his election as a threat to global climate efforts³. Moreover, compared to 2017, he presents a “fiercer” agenda (*Agenda 47*), aiming to cut climate-related investments by reducing bureaucracy and deregulating the sector⁴.

We analyse the reaction of the U.S. market to the election of Donald Trump as the 45th president of the United States. Considering it a climate-negative political event, we expect a shift in market valuations (Antoniuk & Leirvik, 2024) favouring less environmentally committed firms. This shift allows us to quantify the importance of transition vs. physical risk in determining market valuations of the impact of climate change. Using an event study methodology, we selected all firms listed in the S&P 500 and estimated the cumulative abnormal returns in different event windows encompassing the U.S. election day on November 5, 2024.

Past studies have analysed similar situations, providing insights into specific high or low-pollutant sectors, such as oil and gas firms (Diaz-Rainey et al., 2021), utilities, energy-intensive, and transport

¹ <https://www.nytimes.com/2024/11/06/climate/trump-climate-change.html>

² <https://www.theguardian.com/us-news/2024/nov/06/trump-climate-change-environment-threat>

³ <https://www.bbc.com/news/articles/c5ygplyg09ro>

⁴ <https://www.donaldjtrump.com/platform>

sectors (Antoniuk & Leirvik, 2024) and renewable industries (Mukanjari & Sterner, 2024). Focusing on specific sectors fails to provide insights into investors' portfolio adjustments across sectors.

By adopting a more granular and cross-sectoral approach, our study provides additional evidence on investors' portfolio adjustments in response to political events or climate policy news. Moreover, unlike previous research, we analyse the drivers of cumulative abnormal returns (Fiordelisi et al., 2020) to understand whether firms' commitment to reducing environmental impact drives the market's response to Trump's election.

Our findings suggest strong investor reaction and re-adjustment of valuations across sectors in anticipation of and following Trump's election. In addition, firms performing better on environmental issues show worse market performance within the event windows considered, revealing that investors are shifting their attention to less environmentally conscious firms, probably incorporating expectations of favourable policies influencing "brown" sectors. The findings reveal a repricing of transition risk, which suggests the relative importance of firms' exposure to this aspect of climate-related risk compared to physical risk from climate change, arguably less affected by the election result. This exposure seems to explain the cross-sectional differences in stock valuations and, when they change, stock returns.

The remainder of the paper is organised as follows. Section 2 details the research design, followed by results in Section 3. Section 4 concludes.

2. Data and methodology

2.1. Sample

Our sample comprises all firms listed in the S&P 500, which includes about 500 of the largest companies in the U.S., representing about 80% of their market capitalization⁵. All data used in the analyses was retrieved from Refinitiv. The sectorial distribution of the 498 sampled firms is provided in Table 1.

[Table 1]

2.2 Event study methodology

We use an event study methodology to explore whether Trump's election determined abnormal returns for the sampled firms. In this analysis, which as usual can be seen as a test of a version of the

⁵ www.bloomberg.com

CAPM and of Fama's efficient market hypothesis (Fama, 1970; Fama, 1991), abnormal returns are calculated as follows:

$$AR_{i,t} = R_{i,t} - E(R_{i,t}) \quad (\text{eq.1})$$

Here, $AR_{i,t}$ is the abnormal return of the i -th stock at time t , $R_{i,t}$ is the actual return of the i -th stock at time t and $E(R_{i,t})$ is the (estimated) expected return of the i -th stock at time t (Fiordelisi et al., 2014; De Vito et al., 2023). Following previous studies, the expected return is estimated through the market model as follows:

$$E(R_{i,t}) = \hat{\alpha} + \hat{\beta} \times R_{m,t} + \varepsilon_{i,t} \quad (\text{eq.2})$$

Here, $R_{m,t}$ is the rate of return of the benchmark index at time t , represented by S&P 500 index (Tang et al., 2024), and $\hat{\alpha}$ and $\hat{\beta}$ are the intercept and slope of the OLS regression model, respectively, and $\varepsilon_{i,t}$ is the regression residual.

The event date is the U.S. presidential elections held on November 5, 2024. We thus set this date as $t = 0$. We considered the following time windows: [-5,-1], [0,0], [-1,1], [-2,2], [-3,3], [1,5] and [-5,5]. The estimation window used for expected return computation is $t \in [-250, -26]$, where we introduce a 20 trading-day gap between the end of the estimation period and the start of the longest event window to prevent the inclusion of information that may have been disclosed before the event (Diaz-Rainey et al., 2021).

We computed cumulative abnormal returns as follows:

$$CAR_{i,p-q} = \sum_{t=p}^q AR_{i,t} \quad (\text{eq.3})$$

where $CAR_{i,p-q}$ is the cumulative abnormal return of the i -th stock for the event window that starts in p and ends in q .

2.3 Cross-sectional regressions

The second stage is an OLS regression to investigate whether firms with high environmental performance have been penalised by the market in the wake of Trump's election. We estimate the following models:

$$CAR_{i,p-q} = \beta_0 + \beta_1 E_score_{i,t} + \gamma X_{i,t} + \varepsilon_{i,t} \quad (\text{eq.4})$$

$$CAR_{i,p-q} = \beta_0 + \beta_1 E_grade_{i,t} + \gamma X_{i,t} + \varepsilon_{i,t} \quad (\text{eq.5})$$

Here, $CAR_{i,p-q}$ is proxied alternatively by the CARs of the i -th stock estimated for each of the different aforementioned event windows $[p, q]$. E_score and E_grade are our independent variables of interest, both reflecting the environmental performance of the i -th firm at time t . E_score is a continuous variable based on 68 metrics related to Resource use, Emissions, and Environmental Innovation (Guérin & Suntheim, 2021). E_grade is a categorical variable that rates environmental performance, with A as the highest grade and D as the lowest.

$X_{i,t}$ is the vector of firm-level control variables from the latest pre-election data, including , following Shen et al. (2017): (i) *Size*, i.e. firms' total assets; (ii) *Leverage*, obtained by dividing total debt by total assets; (iii) *Cash*, computed as cash and cash equivalent divided by total assets; (iv) *PB*, i.e. the price-to-book value; (v) *DY*, i.e. the dividend yield; (vi) *Rev_growth*, i.e. the annual growth rate of revenues; (vii) *ROA*, computed as EBIT on total assets; (viii) *Earnings_release*, a binary variable indicating whether firms announced earnings during the event window. All control variables, except for *DY*, *Rev_growth*, and *ROA*, are considered in their natural logarithm form. All specifications include industry dummies.

As in Chiaramonte et al. (2021), we also examine environmental performance by considering its main components: (i) *Resource_Use*, reflecting firms' performance in reducing the use of materials, energy or water; (ii) *Emissions*, which measures firms' performance in reducing environmental emissions; (iii) *Env_innovation*, reflecting firms' performance in developing and implementing new environmental technologies and processes. Definitions, descriptive statistics, and correlations of variables are reported in Appendix A, Tables A1, A2 and A3, respectively.

3. Results and discussion

3.1. Industry-level stock-price reactions

First, we analyse industry-level stock-price reactions by plotting the average CARs for each GICS code for the event windows $[-5,-1]$, $[0,0]$ and $[1,5]$. Figure 1 shows that average CARs exhibit significant sectorial fluctuations, suggesting that Trump's election considerably impacted relative stock valuations across sectors. Sectors such as Energy, Financials, Industrials and Communication Services exhibited more pronounced positive CARs after the event. At the same time, Utilities experienced a positive effect only on the day of the event. Conversely, Materials, Real Estate and Consumer Staples are characterised by negative and significant CARs, particularly after the event.

Trump has promised deregulation of the banking sector, an increase in protectionism in favour of domestic industries and policies in favour of fossil fuels. The expectation of the implementation of

these policies could explain some of the above shifts in valuations across sectors, through their implications in terms – for example – of increased tariffs and costs of imported raw materials, reduced foreign demand for U.S. products, and higher mortgage interest rates. Finally, it is possible that the market deemed that the proposed tax policies could reduce the purchasing power of the lower middle class, thereby reducing the demand for essential goods such as Consumer Staples.

[Figure 1]

3.2. The impact of environmental performance on CARs

Next, we run OLS regressions to study whether firms with higher environmental performance have been penalised during the event windows considered. Tables 2 and 3 present estimation results based on the empirical models described in Eqs 4 and 5, revealing a negative and statistically significant effect of both E_score and E_grade on firms' CARs. Specifically, the negative effect of E_score is observed in the event windows [-1,1], [-2,2], [1,5], and [-5,5]. Similarly, the negative effect of E_grade is evident in the event windows [-1,1], [-2,2], [-3,3], [1,5], and [-5,5], with firms receiving the lowest rating (D, considered as base level) exhibiting higher CARs compared to others.

[Table 2]

[Table 3]

Table 4 reports the estimation results focusing on the main constituents of E_score , i.e. firms' Resource Use (Panel A), Emissions (Panel B), and Environmental Innovation (Panel C) scores. Results reveal that $Emissions$ do not influence firms' CARs, while $Resource_Use$ negatively influences CARs only in the event window [-1,1]. $Env_Innovation$ harms CARs in the windows [-1,1], [-2,2], [1,5] and [-5,5], suggesting that this component drives the results. The expected reduction in regulatory and fiscal support has arguably created the perception among investors that investments made in new environmental technologies and eco-friendly processes could be a cost rather than an investment.

[Table 4]

For robustness, we replicated all analyses using standard errors clustered at the sub-industry level to account for potential within-sector correlation and provide more reliable statistical inferences. The results, available upon request, fully confirm our baseline findings. Overall, our results reveal that the best-performing companies from an environmental standpoint had the worst performance in the considered event windows. This confirms that investors perceived Trump's election as a negative climate-policy event, leading to a shift in market valuations, now reflecting lower transition risk for

"brown" firms and lower benefits for firms excelling in environmental performance. Investors turned their attention away from "green stocks" in anticipation of possible anti-climate policies.

4. Conclusions

Our study explores how the companies' environmental profile drives the market's response to President Trump's election. We used an event study methodology with a sample of 498 firms in the S&P 500 index.

Our results indicate strong investor reaction and re-adjustment of stock market valuations following Trump's election, with heterogeneous sensitivity among sectors. Sectors like Energy, Financials, and Industrials experienced more pronounced positive price stock reactions. In contrast, sectors such as Materials, Real Estate, and Consumer Staples displayed negative price stock reactions. Moreover, firms performing better on environmental issues performed worse within the event windows. Overall, our findings reveal that investors shifted their attention to less environmentally-conscious firms, expecting policies favourable for firms in "brown" sectors. This, in turn, highlights how changing government policies can significantly influence investors' valuation criteria, allocation strategies and, ultimately, stock prices. Our findings align with Mukanjari and Sterner (2024). Moreover, in contrast to Di Martino et al. (2024), we show that the market weights firms' environmental performance and we confirm the intuition of Carnevale et al. (2012) that cultural values and country governance regimes influence this assessment. These results carry key implications: investors and fund managers must account for policy shifts affecting firms with different environmental profiles, while policymakers should prioritize a stable regulatory framework to ensure patient capital investment and safeguard the long-term goal of a sustainable transition.

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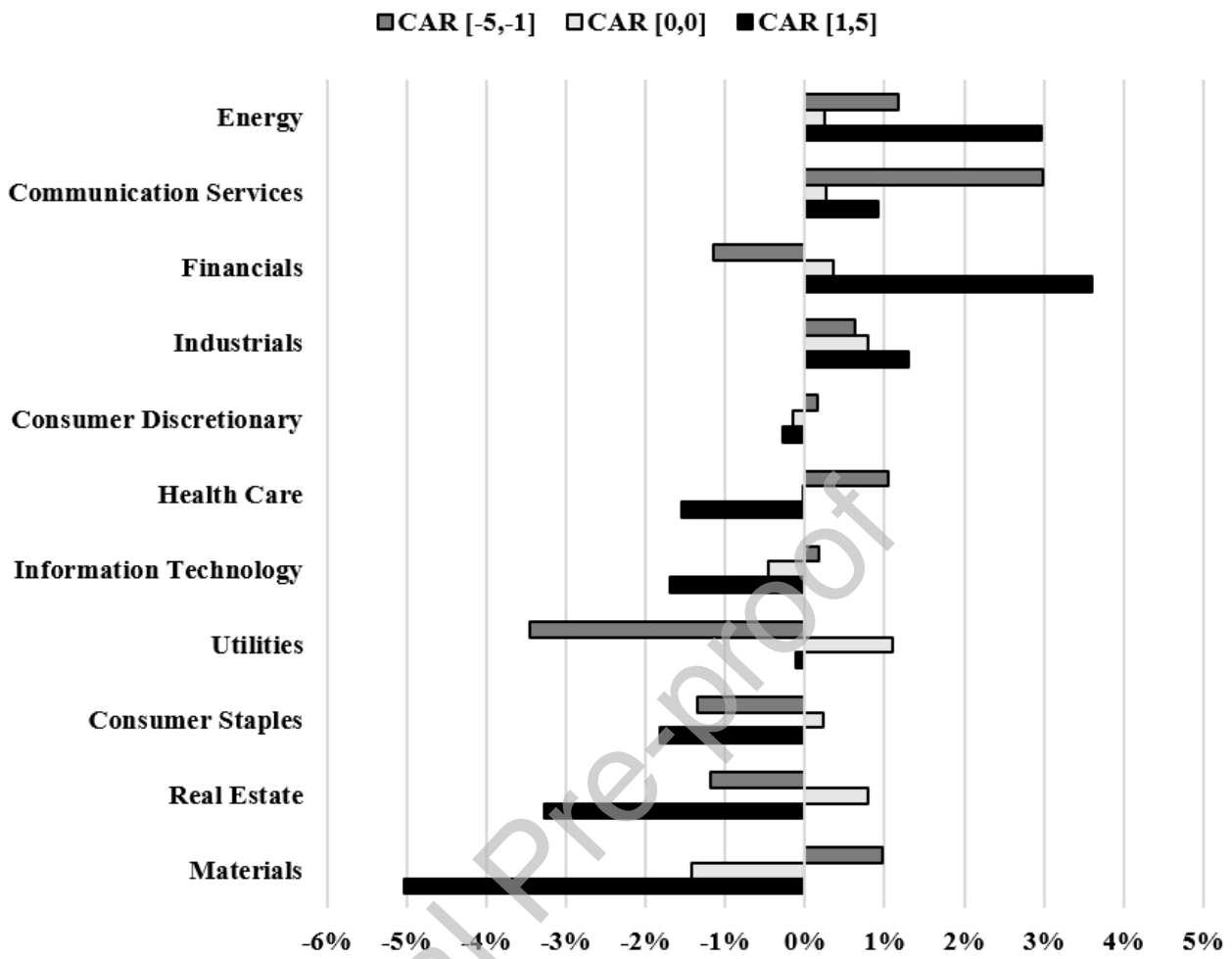
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Table 1. Distribution of the issuing firms in the sample by industry.

GICS sector	Freq.	Sample (%)	Market cap (%)
Communication Services	22	4.22	10.03
Consumer Discretionary	49	10.04	10.14
Consumer Staples	38	7.63	6.12
Energy	22	4.42	3.36
Financials	72	14.46	14.33
Health Care	61	12.25	10.73
Industrials	77	15.26	8.32
Information Technology	68	13.65	30.48
Materials	28	5.62	2.06
Real Estate	31	6.22	2.14
Utilities	31	6.22	2.29

Figure 1. Average CARs for each industry for the event windows [-5,-1], [0,0] and [1,5].

Note(s): This table reports the average cumulative abnormal returns (CARs) for companies in different sectors for the event windows [-5,-1], [0,0] and [1,5].

Table 2. The effect of E_score on firms' CARs

	CAR [-5,-1]	CAR [0,0]	CAR [-1,1]	CAR [-2,2]	CAR [-3,3]	CAR [1,5]	CAR [-5,5]
Constant	-1.555 (1.341)	-7.872*** (2.238)	1.385 (1.847)	-16.833 (13.738)	-29.435 (20.032)	-1.851 (3.229)	-1.420 (1.962)
E_score	0.145 (0.134)	-1.021 (0.734)	-0.657** (0.309)	-1.683* (0.871)	-1.652 (1.141)	-0.361* (0.186)	-0.200* (0.117)
Size	-0.087* (0.046)	0.131 (0.085)	0.132* (0.068)	0.473** (0.232)	0.473 (0.327)	0.117* (0.060)	0.020 (0.036)
Leverage	-0.079 (0.311)	0.005 (0.594)	-0.412 (0.499)	-2.697 (2.074)	0.091 (2.569)	-0.479 (0.435)	-0.245 (0.270)
Cash	1.037 (0.662)	1.657 (1.452)	-0.601 (0.920)	0.032 (3.328)	2.405 (4.795)	-0.906 (0.912)	0.213 (0.539)
PB	0.412** (0.186)	1.286** (0.528)	-0.055 (0.286)	2.317 (1.738)	3.908 (2.608)	0.215 (0.423)	0.311 (0.261)
DY	-0.053 (0.037)	0.039 (0.066)	-0.013 (0.052)	-0.421** (0.171)	-0.433* (0.233)	-0.071* (0.041)	-0.054* (0.028)
Rev_growth	0.001 (0.002)	-0.002 (0.007)	0.009* (0.005)	0.015 (0.016)	0.032 (0.024)	0.012** (0.005)	0.006* (0.003)
ROA	0.006 (0.009)	-0.014 (0.018)	-0.013 (0.013)	-0.024 (0.049)	-0.022 (0.070)	-0.008 (0.014)	-0.002 (0.009)
Earnings_ release	-0.155 (0.126)	0.851 (0.858)	-0.126 (0.296)	0.332 (0.756)	1.233 (0.877)	0.340 (0.231)	-0.085 (0.079)
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	475	475	475	475	475	475	475
R^2	0.113	0.144	0.253	0.153	0.103	0.193	0.135
Adjusted R^2	0.076	0.108	0.222	0.117	0.066	0.159	0.099

Note(s): This table reports baseline results for the first empirical model (eq.4, Section 2.3). The dependent variables represent firms' CARs in the event windows [-5,-1], [0,0], [-1,1], [-2,2], [-3,3], [1,5], and [-5,5]. The independent variable of interest is E_score . All variables are described in Table A1 (Appendix A). Standard errors in parentheses are clustered at the firm level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 3. The effect of *E_grade* on firms' CARs

	CAR [-5,-1]	CAR [0,0]	CAR [-1,1]	CAR [-2,2]	CAR [-3,3]	CAR [1,5]	CAR [-5,5]
Constant	-1.210 (1.443)	-10.509*** (3.741)	-0.578 (2.312)	-24.838* (14.174)	-39.780* (20.584)	-3.553 (3.379)	-2.445 (2.022)
Env_grade: A	0.154 (0.188)	-1.264 (0.864)	-0.904** (0.435)	-3.604** (1.439)	-4.623** (2.033)	-0.814* (0.445)	-0.452** (0.218)
Env_grade: B	0.198 (0.186)	-1.144 (0.867)	-0.760* (0.423)	-3.291** (1.380)	-4.165** (1.955)	-0.823* (0.439)	-0.423** (0.213)
Env_grade: C	0.108 (0.193)	-1.131 (0.896)	-0.599 (0.438)	-3.589** (1.473)	-5.098** (2.058)	-0.788* (0.449)	-0.448** (0.223)
Size	-0.077* (0.046)	0.054 (0.084)	0.103 (0.067)	0.352 (0.227)	0.331 (0.322)	0.093 (0.059)	0.007 (0.036)
Leverage	-0.057 (0.314)	-0.228 (0.600)	-0.516 (0.504)	-3.050 (2.064)	-0.318 (2.574)	-0.540 (0.432)	-0.285 (0.271)
Cash	1.016 (0.667)	1.828 (1.707)	-0.500 (0.999)	-0.128 (3.445)	1.946 (4.811)	-0.965 (0.899)	0.184 (0.545)
PB	0.400** (0.188)	1.433** (0.656)	0.021 (0.335)	3.221* (1.833)	5.335* (2.743)	0.410 (0.461)	0.428 (0.272)
DY	-0.049 (0.037)	0.028 (0.058)	-0.015 (0.052)	-0.413** (0.174)	-0.405* (0.233)	-0.071* (0.042)	-0.053* (0.028)
Rev_growth	0.001 (0.002)	-0.003 (0.007)	0.009* (0.005)	0.012 (0.016)	0.029 (0.024)	0.012** (0.005)	0.005* (0.003)
ROA	0.006 (0.009)	-0.017 (0.020)	-0.015 (0.014)	-0.031 (0.051)	-0.032 (0.071)	-0.009 (0.014)	-0.002 (0.009)
Earnings_ release	-0.160 (0.125)	0.858 (0.860)	-0.114 (0.311)	0.227 (0.751)	1.069 (0.882)	0.291 (0.232)	-0.082 (0.079)
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	475	475	475	475	475	475	475
R^2	0.113	0.121	0.244	0.157	0.115	0.198	0.139
Adjusted R^2	0.072	0.080	0.209	0.118	0.074	0.161	0.100

Note(s): This table reports baseline results for the first empirical model (eq.5, Section 2.3). The dependent variables represent firms' CARs in the event windows [-5,-1], [0,0], [-1,1], [-2,2], [-3,3], [1,5], and [-5,5]. The independent variable of interest is *E_grade*. All variables are described in Table A1 (Appendix A). Standard errors in parentheses are clustered at the firm level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 4. The effect of Resource Use, Emissions, and Environmental Innovation on firms' CARs

	CAR [-5,-1]	CAR [0,0]	CAR [-1,1]	CAR [-2,2]	CAR [-3,3]	CAR [1,5]	CAR [-5,5]
PANEL A:							
Resource_Use	0.002 (0.083)	-0.788 (0.545)	-0.420* (0.226)	-0.981 (0.603)	-1.066 (0.796)	-0.083 (0.117)	-0.116 (0.076)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	475	475	475	475	475	475	475
R ²	0.111	0.153	0.250	0.148	0.102	0.184	0.133
Adjusted R ²	0.074	0.118	0.218	0.113	0.064	0.150	0.097
PANEL B							
Emissions	0.042 (0.103)	-0.529 (0.485)	-0.315 (0.209)	-0.709 (0.625)	-0.779 (0.845)	-0.019 (0.142)	-0.038 (0.096)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	475	475	475	475	475	475	475
R ²	0.111	0.117	0.238	0.142	0.098	0.183	0.128
Adjusted R ²	0.074	0.080	0.206	0.106	0.060	0.149	0.092
PANEL C							
Env_Innovation	0.046 (0.030)	-0.055 (0.045)	-0.108*** (0.042)	-0.328** (0.136)	-0.289 (0.192)	-0.115*** (0.035)	-0.038* (0.022)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	475	475	475	475	475	475	475
R ²	0.116	0.106	0.244	0.150	0.101	0.205	0.134
Adjusted R ²	0.079	0.068	0.213	0.115	0.063	0.172	0.098

Note(s): This table reports additional cross-sectional results. The dependent variables represent firms' CARs in the event windows [-5,-1], [0,0], [-1,1], [-2,2], [-3,3], [1,5], and [-5,5]. The independent variables of interest are *Resource_Use* (Panel A), *Emissions* (Panel B), and *Env_Innovation* (Panel C). Control variables include *Size*, *Leverage*, *Cash*, *PB*, *DY*, *Rev_growth*, *ROA*, and *Earnings_release*. All variables are described in Table A1 (Appendix A). Standard errors in parentheses are clustered at the firm level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Declaration of interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: