The value of corporate lobbying for turbulent times: Evidence from the EU-ETS

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Motivation

▶ Since phase 3, the EU-ETS gets more stringent
▶ Companies face higher stranded asset risk

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- ▶ Political influence gains importance (bailouts)

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▶ Larger asset depreciation increases a company's cost of capital

▶ Political influence gains importance (bailouts)

▶ No paper about political influence as a safeguard for future climate transition risk

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Related literature I

▶ **Financial markets price in carbon/pollution risk** (Alessi, Ossola and Panzica, 2021; Bolton and Kacperczyk, 2021, 2022; Hsu, Li and Tsou, 2022; Matsumura, Prakash and Vera-Muñoz, 2014; Fliegel, 2023)

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   ▷ Bushnell, Chong and Mansur (2013) **identifies three channels: compliance cost; revenues from EUAs, product prices**

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This paper in a nutshell

▶ More stringent climate policies affect stock returns

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▶ 2.) Investors perceive lobbying as a safeguard against transition risks

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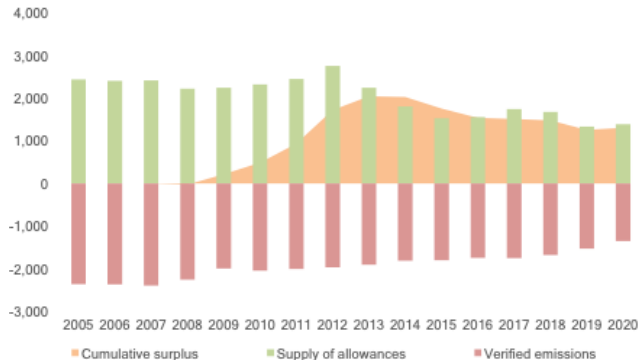PECan

EUA cumulative surplus

Figure 1: Supply of EUAs and verified emissions in million tonnes of CO2-equivalent emissions. The chart also shows the cumulative surplus, calculated as the cumulative supply of allowances minus cumulative emissions. Source: European Environment Agency, ESMA.

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Market Stability Reserve (MSR) I

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$$\Delta MSR_{t+1} = \begin{cases} +0.16 \times TNAC_t, & \text{if } TNAC_t > 833,000,000 \\ -0.16 \times TNAC_t, & \text{if } TNAC_t < 400,000,000 \\ 0, & \text{otherwise} \end{cases}$$

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▶ $TNAC_{2018} = 1,654,574,598 > 833,000,000 => intake$
▶ Intake between January-August 2019 $= 264,731,936$

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Data I

- ▶ Firm-level data retrieved from Eikon (STOXX600 constituent list)
- ▶ Data on lobbying activities relies on the EU's Transparency Register
- ▶ Cumulative lobby expenses serve as a proxy for political influence (**Stock not flow**)
- ▶ We match financial with lobby data

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Data II

▶ **Emission-intensive sectors:**
  Conventional Electricity, Multi-Utilities, Oil Equipment & Services,Oil: Crude
  Producers, Oil Refining & Marketing, Integrated Oil & Gas, Gas Distribution,
  Pipelines, Coal

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Estimation Strategy I

- $\Delta MSR_{Jan-Sep 2019}$ was published on May 15, 2018
- To get a counterfactual we rely on the market model

$$r_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it}, \tag{1}$$

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- ▶ Estimate normal returns (in the absence of the MSR)

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▶ Subtracting predicted $\widehat{r_{it}}$ from the observed r_{it} allows us to infer the abnormal return AR_{it}

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Event Study I

▶ We calculate CAR_i[10] of each company

▶ Estimation within event window $t = \{-10, +10\}$ where $t = 0$ for the event date

▶ Prediction window for $\widehat{r}_{it}$ relate to $t = \{-110, -11\}$

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Event Study II

▶ We estimate average CAR_i[10] of emission-intensive vs. other companies

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Event Study II

- We estimate average $CAR_i{}^{10}$ of emission-intensive vs. other companies
- Heterogeneity with respect to lobby expenses is estimated with OLS

$$CAR_i{}^{10} = \alpha + \delta Lobby_i + \gamma X_i + \eta_i, \tag{3}$$

where α is a constant, δ is our coefficient of interest, γ is a parameter vector associated with the covariate set X_i. and η_i the respective error term
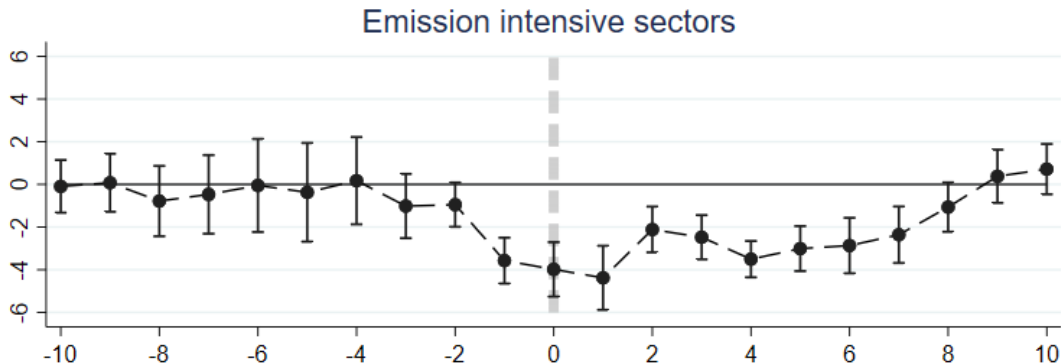
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Results I – CARs

Figure 2: This figure presents average 10-days CARs of emission-intensive sectors. The 95 % confidence intervals, based on robust standard errors, are denoted by the capped vertical lines.
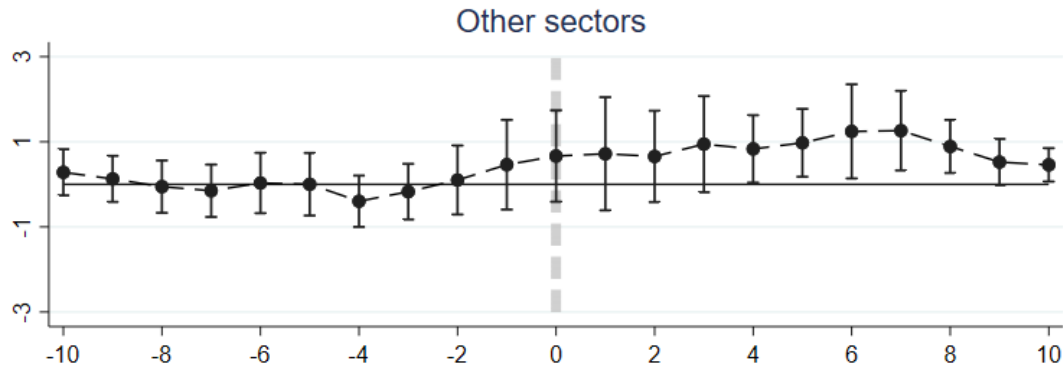
Results I - CARs

Figure 3: This figure presents average 10-days CARs of other sectors. The 95 % confidence intervals, based on robust standard errors, are denoted by the capped vertical lines.
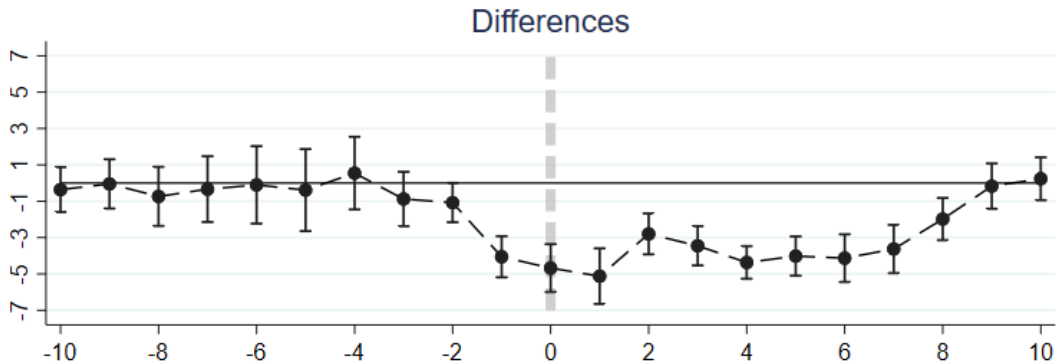
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Results I - CARs

Figure 4: This figure presents the difference of average 10-days CARs from emission intensive versus other sectors. The 95 % confidence intervals, based on robust standard errors, are denoted by the capped vertical lines.
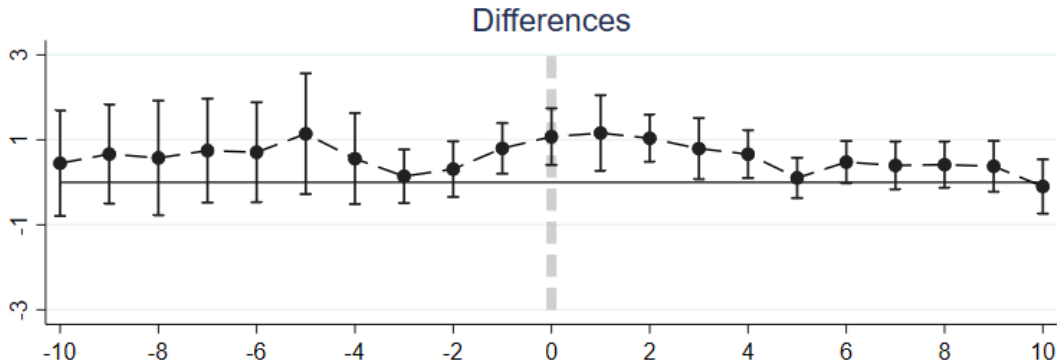
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Results II – Marginal Effect of Lobbying

Figure 5: This figure presents the marginal effect of lobby expenses on 10-days CARs for emission-intensive versus other sectors. The 95 % confidence intervals, based on robust standard errors, are denoted by the capped vertical lines.

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Recap

▶ We estimate significant effects of the MSR on emission-intensive companies' stock returns

▶ Effect heterogeneity with respect to political influence (stock of lobby expenses)

▶ Lobbying perceived as a safeguard (lower stock return losses)

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Motivation
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EU-ETS policy
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MSR
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Data
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Estimation Strategy
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Results
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Conclusion
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References

Recap

- ▶ We estimate significant effects of the MSR on emission-intensive companies' stock returns
- ▶ Effect heterogeneity with respect to political influence (stock of lobby expenses)
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- ▶ **Lobby expenses cannot lead to an avoidance of compliance costs (costs of EUAs)**

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Recap

▶ We estimate significant effects of the MSR on emission-intensive companies' stock returns

▶ Effect heterogeneity with respect to political influence (stock of lobby expenses)

▶ Lobbying perceived as a safeguard (lower stock return losses)

▶ **Lobby expenses cannot lead to an avoidance of compliance costs (costs of EUAs)**

▶ Lobby expenses are most likely to reduce the likelihood of stranded assets (asset depreciation), hence they can be seen as a hedge against transition risks affecting future **costs of capital**

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