

# The Impact of Environmental Controversies on Firm Performance

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# Motivation

- ▶ The increasing importance of disclosure strategies to improve environmental performance of firms
  - ▶ US Toxic Release Inventory
  - ▶ Green Rating Programs
  - ▶ Firms below average improve more
- ▶ Scandals are a way of disclosure as negative information shocks
  - ▶ VW Dieselgate Scandal
  - ▶ Oil Spills
  - ▶ Rana Plaza Collapse
- ▶ Media plays a key role in diffusing negative information to the public.
- ▶ Consumers care about the reputation of the companies.

## Research Question

- ▶ How do negative information shocks (media coverage on environmental scandals) about firms affect their sales?
- ▶ What are the spillover effects on competing firms?

### Further Questions:

- ▶ What are the heterogeneous effects? Do consumer responses to environmental scandals change across countries? How does the effect of scandals on sales change across countries with different levels of environmental public awareness?
- ▶ Some environmental scandals have local impact while the others are global. Do people care about remote environmental scandals when the effect is local? Is it different when they have global impacts? How are the global sales of firms affected from the environmental scandals with local vs. global impacts?

# Literature

## ▶ Trade

- ▶ Koenig and Poncet (2019) - Social Responsibility Scandals and Trade
- ▶ Koenig and Poncet (2019) - Reputation and (un)fair trade: Effects on French importers from the Rana Plaza Collapse

## ▶ Stock Market

- ▶ Aouadi and Marsat (2018) - Do ESG Controversies Matter for Firm Value? Evidence from International Data
- ▶ Dorfleitner et al (2020) - ESG controversies and controversial ESG: about silent saints and small sinners
- ▶ Kolbel and Busch (2013) - The effect of bad news on credit risk: a media based view of the pricing of corporate social responsibility

## ▶ Spillover Effects

- ▶ Bachman et al (2019) - Firms and Collective Reputation: a Study of the Volkswagen Emissions Scandal

## Estimating Equation

- ▶ The impact of controversies on sales

$$Y_{ist} = \beta_0 + \beta_1 D_{ist} + X_{ist} \delta + IndustryFE + YearFE + \varepsilon_{ist}$$

- ▶ Spillover effects (positive and negative)

$$Y_{ist} = \beta_0 + \beta_1 D_{ist} + \gamma \mathbf{D}_{-ist} \mathbf{S}_{-is} + X_{ist} \delta + IndustryFE + YearFE + \varepsilon_{ist}$$

- ▶  $D_{ist}$ : Dummy for having a controversy in a year
- ▶  $S_{-is}$ : Similarity matrix in terms of revenue distribution
- ▶ Controls:
  - ▶ Controversy Score
  - ▶ ESG Score
  - ▶ Firm size
  - ▶ Profitability (ROA)
  - ▶ RD Expenditures
  - ▶ Firm age

# Concerns

- ▶ Vulnerability of sales to controversies may depend on the industry characteristics → Industry FE
- ▶ Endogeneity of having a controversy  
→ IV: total number of controversies within industry
- ▶ Persistence of the impact beyond the scandal year

# Data

- ▶ Asset4 by Thomson Reuters
- ▶ 1000 firms in 2002, 9000+ firms today
- ▶ 23 ESG controversy topics covered in English-speaking media
- ▶ Date, title, abstract, and url
- ▶ 1036 news on environmental issues for 114 firms
- ▶ +Public Health controversies
- ▶ Similarity Index:
  - ▶ The StarMine Countries of Risk Model
  - ▶ The fractional exposures allocated to the company's top 20 countries of risk for the revenue distribution