Creditor Control of Environmental Activity: The Role of Liquidation Value

Jason (Pang-Li) Chen
Drexel University

**Introduction**

- I study how creditors influence their borrowers’ environmental activity.
- Poor environmental practices may cause contamination reducing liquidation value.
- This is costly for creditors because:
  1. Creditors sell assets to recover their claim
  2. Diminished liquidation value reduces creditors’ bargaining power
- **Prediction:** Creditor control leads to better environmental outcomes when contamination has a large adverse effect on liquidation value.
- **Important:** Banks are under pressure to exit polluting industries. Removing bank debt from polluting firms’ capital structure can have negative consequences on the environment if banks’ voice improves environmental practices.

**Empirical Strategy**

**Bona fide prospective purchaser (BFPP):**
- Passed in December 2001, BFPP exempts a purchaser from cleanup liability if the purchaser:
  1. Does due diligence prior to the purchase
  2. Takes reasonable steps to limit releases after the purchase
- BFPP defense only applies to CERCLA and not RCRA \(\Rightarrow\) BFPP protects the value of contaminated assets that are only exposed to CERCLA.
- Treated (control) group = Industries less (more) exposed to RCRA.
- Compare response to BFPP when there is high and low creditor control

**Creditor control:** Financial covenant violation
- Technical default that gives increases lenders bargaining power
- Control rights are allocated to creditors because manager/shareholder would have taken a different action otherwise.

**Main Results**

\(\uparrow \) Saleability of contaminated assets (BFPP) \(\Rightarrow\) \(\uparrow\) pollution for violators but has little effect on non-violators

**Economic Magnitude**

- The effect is 14-25%, **1.5-4** times larger than parent liability protection and reducing lenders’ exposure to environmental liability
- Stronger parent liability protection leads to a 5-9% increase in pollution by subsidiaries (Akey and Appel 2021).
- Reducing lenders’ environmental liability reduces pollution by 9% (Bellon 2021).

**Additional Tests**

- \(\uparrow\) in pollution is driven by both the intensive and extensive margins of ground pollution
- Placebo tests: No effect on water and air emissions
- Using chemical-level exposure to BFPP instead of industry leads to the same conclusion
- The increase in ground pollution is driven by investments in less effective abatement technology rather than production.
- The effect is stronger when creditors have larger bargaining power.
- Creditors are more likely to include environmental information covenants in loan agreements for violating borrowers

**Contribution**

- My findings show that increasing the adverse effect that pollution has on asset value incentives creditors to discipline corporate environmental behavior
- Highlight a novel implication of the market for corporate asset: The demand for corporate assets affects how the financial market, particularly creditors, influences corporate environmental policy

**Triple-Difference Specification**

\[ y = \beta_1 Viol \times BFPP \times Post + \text{Other vars} + \text{FEs} + \epsilon \]

<table>
<thead>
<tr>
<th>Year FE</th>
<th>Viol × BFPP × Post</th>
<th>Other variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>0.313*** 0.64*** 0.171*</td>
<td>(0.087) (0.078) (0.088)</td>
</tr>
</tbody>
</table>

**Outcome:** \(\log(1+\text{Ground Pollution})\)

**Placebo Tests:** No effect on water and air emissions