The impact of climate litigation risk on firms' cost of bank loans

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SCAN ME

Introduction & Motivation

- Climate litigation risk is an emerging financial risk (NGSF, 2021).
- Climate Lawsuits are exploding (see: Fig 1).
- Research question: ***How does climate litigation risk affect firms' cost of bank borrowing?***

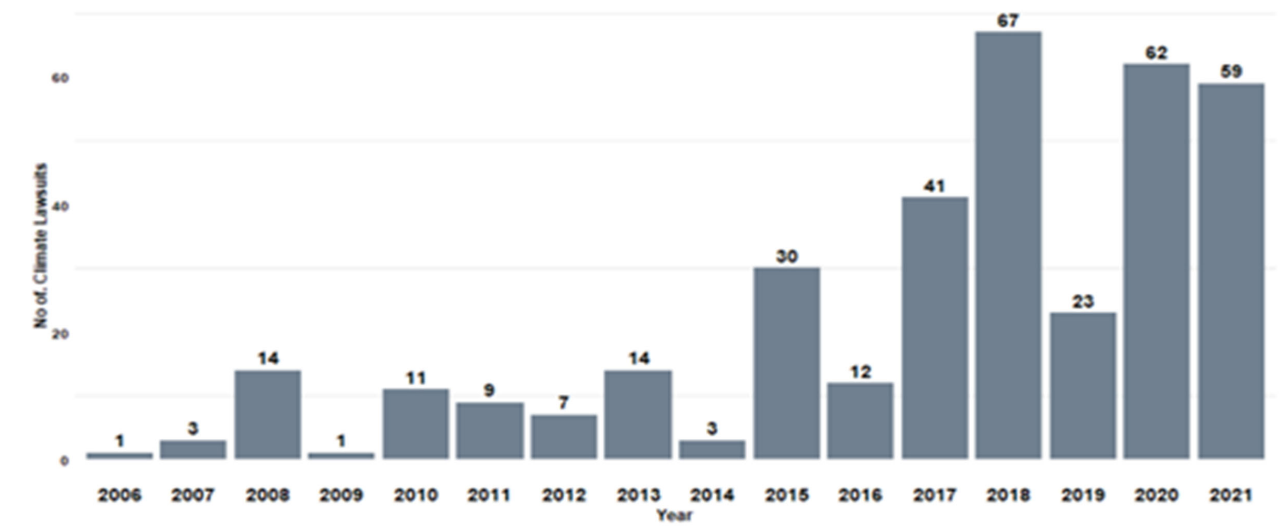

Figure 1: Number of Climate Lawsuits.
The figure displays the annual number of climate-related lawsuits filed globally (US and EU) between 2006 and 2021.

Results

Log(Spread)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Climate_Lawsuits (t)	**0.0781******							
	(0.0188)							
Climate_Lawsuits (t-1)		**0.0624*****	**0.0526*****	**0.0462****	**0.0362***	**0.0445****	**0.0431****	**0.0382****
		(0.0199)	**(0.0195)**	**(0.0199)**	**(0.0195)**	**(0.0181)**	**(0.0181)**	**(0.0178)**
Loan Control	No	No	No	No	No	Yes	No	Yes
CG Control	No	No	No	No	No	No	Yes	Yes
Firm Control	No	No	No	No	No	No	No	Yes
Borrower FE	No	No	Yes	No	Yes	Yes	Yes	Yes
Year FE	No	No	No	Yes	Yes	Yes	Yes	Yes
Bank (lending) FE	No	No	No	No	No	No	No	Yes
Country FE	No	No	No	No	No	No	No	Yes
DCC FE	No	No	No	No	No	No	No	Yes
Obs.	5264	4935	4935	4935	4935	4935	4935	4935

The coefficient of Climate_Lawsuits is **significantly positively related** to **log(Spread)**. Hence, when a firm is exposed to a climate lawsuit, its loan spread increases.

Data

1. **Loan Data**:
   - **5.264 syndicated loans (Dealogic)**
   - from **329 individual borrowing firms**
   - Timeframe: **2006-2021** (annual data)
   - **Worldwide study**
2. **Climate litigation risk** proxy:
   - **357 corporation-event observations (Sabin Center for Climate Change Law)**
   - **US: 319 cases | Europe: 38 cases**
3. **Firm-level Environmental profile** and **Corporate Governance** variables from **Refinitiv Eikon**.
4. **Firm-level specific variables** from **DataStream**.

Conclusions

- Firms facing **climate lawsuits pay ~3.9% higher loan spreads.**
- **Stronger effect** for firms with:
  1. **Poorer environmental performance**
  2. **High ESG controversies**
  3. **Novel lawsuits (unprecedented claims)**
     → higher cost due to uncertainty.
- **Climate litigation risk leads to: Smaller loan amounts (-12.5%)** and **Shorter maturities (-7.5%).**
- Banks **adjust pricing** and **contract structure to manage climate ligation risk.**

Methodology

Panel Fixed Effect Model to test our research question:

$$Log(Spread)_{s,i,b,j,t} = \alpha + \beta Climate\_Lawsuits_{i,t-1} + \gamma Loan\ Controls_{s,t-1} + \psi Governance\ Controls_{i,t-1} + \delta Firm\ Controls_{i,t-1} + \varphi_i + \gamma_t + \theta_j + \omega_s + \delta_b + \varepsilon_{s,i,j,t,b} \quad (1a)$$

- Log(Spread) is the natural log of the loan spread.
- Climate_Lawsuits is the firm-level climate litigation risk profile, measured by a dummy variable that is denoted as 1 if the firm is exposed to a climate lawsuit and 0 otherwise.
- Loan, Governance and Firm Controls serve to control for the facility characteristics and borrowing-firm-specific characteristics.
- Fixed effects: Firm (ϕ), Time (γ), Bank (θ), Loan characteristics (ω), and Country (δ).

References

- European Central Bank (2023). Come hell or high water: addressing the risks of climate and environment-related litigation for the banking sector. https://www.ecb.europa.eu/press/key/date/2023/html/ecb.sp230904_1~9d14ab8648.en.html. Keynote speech by Frank Elderson, ECB Legal Conference
- NGFS (2021). Climate-related litigation: Raising awareness about a growing source of risk. https://www.ngfs.net/sites/default/files/medias/documents/climate_related_litigation.pdf
- Bolton, P. and Kacperczyk, M. (2021). Do investors care about carbon risk? Journal of Financial Economics, 142(2):517–549.