Climate Change Shareholder Engagement and Systemic Downside Risk

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Research Question and Findings

- This paper studies the effects of shareholder engagement regarding Climate Change issues on the Systemic and Idiosyncratic risk trends of the approached firms.

- Climate Change investor engagement reduces both systemic and, specially, specific risk of US firms, with the effect being higher with more successful engagements. However, a global effect is not found.

Methodology

- Systematic and specific risk measures
  - Beta decomposition method proposed by Bollerslev, Patton and Quaedvlieg (2022)

- Matching
  - One-to-one genetic matching (Diamond and Sekhon, 2013)

- DID
  - With one of the risk measures as the outcome variable and shareholders' engagement as the treatment

$$RiskMeasure_{i,m} = \beta_1 Target_i * Post_{i,m} + \beta_2 Target_i + \beta_3 Post_{i,m} + \beta'_4 Controls_{i,m} + \epsilon_{i,m}$$
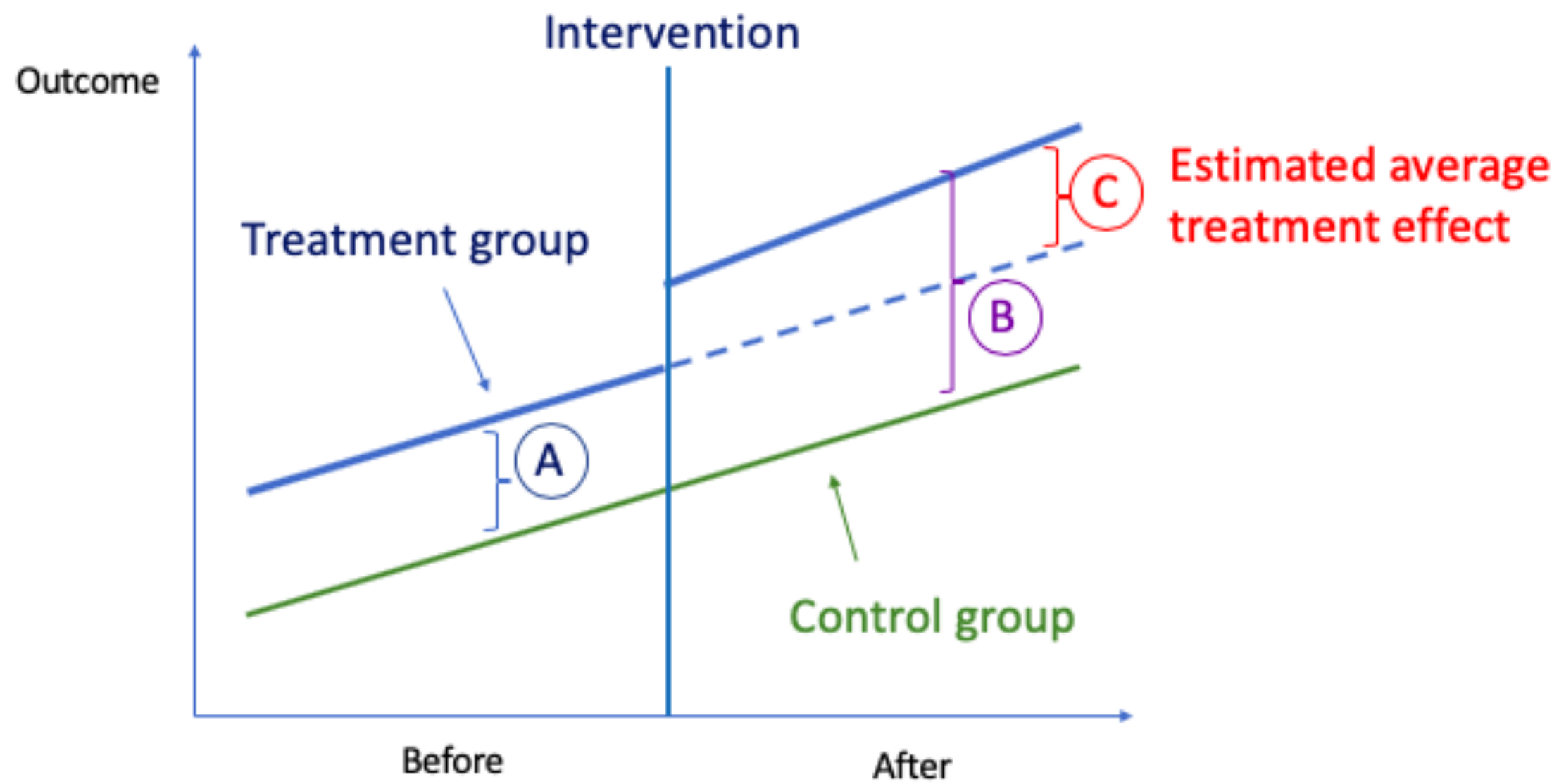
Results

Table: Climate Engagement on Global Sample. Systemic Risk

	Dependent variable:			
	SystemicRisk			
	ALL	Below Mil 2	Mil 2 and above	Mil 3 and above
	(1)	(2)	(3)	(4)
Target × Post	−0.074*	−0.113	−0.068	−0.073
	(0.044)	(0.093)	(0.049)	(0.070)
Post	0.060	0.163**	0.049	0.081
	(0.038)	(0.079)	(0.046)	(0.059)
Target	4.391***	6.470***	4.401***	4.256***
	(1.041)	(1.468)	(1.186)	(1.430)
Year FE	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
Sector FE	Yes	Yes	Yes	Yes
Observations	10,705	1,700	9,005	4,112
R^2	0.239	0.293	0.242	0.299

Note: $^*p<0.1$; $^{**}p<0.05$; $^{***}p<0.01$

Results

Table: Climate Engagement on Global Sample. Specific Risk

	Dependent variable:			
		SpecRisk		
	ALL	Below Mil 2	Mil 2 and above	Mil 3 and above
	(1)	(2)	(3)	(4)
Target x Post	−0.020	−0.092	−0.008	−0.064
	(0.037)	(0.068)	(0.041)	(0.053)
Post	−0.007	0.026	−0.021	0.023
	(0.037)	(0.058)	(0.043)	(0.057)
Target	2.718***	3.434***	2.796***	2.810**
	(0.834)	(1.075)	(0.937)	(1.156)
Year FE	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
Sector FE	Yes	Yes	Yes	Yes
Observations	10,705	1,700	9,005	4,112
R^2	0.337	0.407	0.335	0.392

Note: *p<0.1; **p<0.05; ***p<0.01

Results

Table: Climate Engagement on US Sample. Systemic Risk

	Dependent variable:			
	SystemicRisk			
	ALL	Below Mil 2	Mil 2 and above	Mil 3 and above
	(1)	(2)	(3)	(4)
Target × Post	−0.136*	−0.201	−0.145*	−0.155*
	(0.069)	(0.135)	(0.075)	(0.091)
Post	0.018	0.061	0.029	0.046
	(0.054)	(0.067)	(0.061)	(0.074)
Target	3.263**	2.417	3.872***	3.566**
	(1.462)	(2.251)	(1.490)	(1.418)
Year FE	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
Sector FE	Yes	Yes	Yes	Yes
Observations	3,262	476	2,786	1,945
R^2	0.302	0.241	0.316	0.361
Adjusted R^2	0.294	0.199	0.307	0.352
Note:			*$p<0.1$; **$p<0.05$; ***$p<0.01$	

Results

Table: Climate Engagement on US Sample. Specific Risk

	ALL	Below Mil 2	SpecRisk Mil 2 and above	Mil 3 and above
	(1)	(2)	(3)	(4)
Target x Post	−0.106**	−0.131	−0.105*	−0.144**
	(0.052)	(0.115)	(0.057)	(0.062)
Post	−0.042	0.036	−0.057	−0.037
	(0.050)	(0.089)	(0.060)	(0.067)
Target	1.433	−0.548	1.780	1.532
	(1.035)	(2.800)	(1.133)	(1.221)
Year FE	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
Sector FE	Yes	Yes	Yes	Yes
Observations	3,262	476	2,786	1,945
R^2	0.400	0.480	0.411	0.454
Adjusted R^2	0.393	0.451	0.403	0.446

Dependent variable:

Note: $^*p<0.1$; $^{**}p<0.05$; $^{***}p<0.01$

Comments/Questions

- How to interpret the result that the treatment group has on average much higher BOTH systematic and specific risk?

- What are the variables included in the matching? Does the matched firm come from the same country and sector?