Public-Private Governance Initiatives and Corporate Responses to Stakeholder Complaints: Appendix

This is the supplementary appendix for "Public-Private Governance Initiatives and Corporate Responses to Stakeholder Complaints." It contains five additional sets of models:

1. Alternative specification 1: Fixed effects logit models (full sample).
2. Alternative specification 2: Fixed effects logit models (multi-firm claims).
3. Alternative specification 3: Conditional logit models (full sample and multi-firm claims).
4. Alternative specification 4: Logit models with MSCI ESG ratings control.
5. First stage results for 2SLS models.

1 Appendix

1.1 FE logit: full sample

Table 1: **UNGC membership and response behavior; full sample fixed effects logit results**

	Dependent variable:					
	Responded to claim = 1					
	(1)	(2)	(3)	(4)	(5)	(6)
UNGC Member	1.236***	1.280***	2.432***	1.231***	1.302***	2.191***
	(0.134)	(0.147)	(0.661)	(0.160)	(0.169)	(0.715)
Prior Claims				0.071***	0.070***	0.058
				(0.020)	(0.024)	(0.045)
Total Assets (log)				−0.101**	0.040	0.173
				(0.048)	(0.071)	(0.446)
CS Freedom (home state)				0.340***	0.254***	−0.311
				(0.081)	(0.092)	(0.411)
CS Freedom (host state)				0.013	0.042	0.115
				(0.060)	(0.064)	(0.110)
Year FE		✓	✓		✓	✓
Sector FE		✓			✓	
Firm FE			✓			✓
Observations	1,515	1,509	1,515	1,264	1,260	1,264
Log Likelihood	−754.092	−676.689	−347.450	−587.867	−534.365	−278.997
Akaike Inf. Crit.	1,512.184	1,421.378	1,562.900	1,187.735	1,142.730	1,323.995

Note: Constant term included but not reported. *p<0.1; **p<0.05; ***p<0.01

1.2 FE logit: multi-firm claims

Table 2: **UNGC membership and response behavior; multi-claim fixed effects logit results**

	Dependent variable:					
	Responded to claim = 1					
	(1)	(2)	(3)	(4)	(5)	(6)
UNGC Member	1.070***	1.239***	1.533***	1.213***	1.493***	1.419***
	(0.190)	(0.224)	(0.292)	(0.236)	(0.317)	(0.267)
Prior Claims				0.056*	0.088**	0.090**
				(0.031)	(0.042)	(0.045)
Total Assets (log)				−0.089	−0.129	−0.064
				(0.065)	(0.115)	(0.116)
CS Freedom (home state)				0.370***	0.212	0.214
				(0.133)	(0.224)	(0.149)
CS Freedom (host state)				−0.018	−0.160	0.100
				(0.082)	(0.270)	(0.101)
Year FE		✓	✓		✓	✓
Sector FE		✓	✓			✓
Claim FE			✓		✓	
Observations	1,515	1,509	1,515	1,264	1,260	1,264
Log Likelihood	−754.092	−676.689	−347.450	−587.867	−534.365	−278.997
Akaike Inf. Crit.	1,512.184	1,421.378	1,562.900	1,187.735	1,142.730	1,323.995

Note: Constant term included but not reported. *p<0.1; **p<0.05; ***p<0.01

1.3 Conditional logit: full sample and multi-firm claims

Table 3: **UNGC membership and response behavior; conditional logit results**

	Dependent variable: Responded to claim = 1				
	Full sample (1-2)		Multi-firm claims (3-5)		
	(1)	(2)	(3)	(4)	(5)
UNGC Member	1.626***	1.676**	1.349***	1.363***	1.240***
	(0.590)	(0.659)	(0.291)	(0.297)	(0.360)
Prior Claims	−0.009	0.045	0.072**	0.071**	0.088*
	(0.027)	(0.041)	(0.035)	(0.035)	(0.052)
Total Assets (log)	−0.058	0.106	−0.097	−0.112	−0.131
	(0.265)	(0.316)	(0.108)	(0.109)	(0.148)
CS Freedom (home state)	−0.245	−0.209	0.158	0.136	−0.100
	(0.379)	(0.396)	(0.198)	(0.201)	(0.271)
CS Freedom (host state)	0.109	0.083	0.006	−0.115	−0.314
	(0.089)	(0.093)	(0.223)	(0.243)	(0.283)
Year Condition[1]		✓		✓	✓
Sector Condition					✓
Firm Condition	✓	✓			
Claim Condition			✓	✓	✓
Observations	1,264	1,264	444	444	444
R^2	0.009	0.028	0.071	0.068	0.047
Max. Possible R^2	0.282	0.282	0.506	0.489	0.356
Log Likelihood	−203.590	−191.071	−140.260	−133.554	−87.213
Wald Test	9.420*	30.220**	28.700***	27.490***	18.380***
LR Test	10.991*	36.029***	32.621***	31.342***	21.249***
Score (Logrank) Test	10.625*	33.990**	31.450***	30.038***	20.393***
Note:					*p<0.1; **p<0.05; ***p<0.01

The inclusion of a large number of fixed effects in models estimated with unconditional MLE is known to bias coefficient estimates when there are relatively few (< 20) observations in each group (Katz, 2001). Conditional logit solves the incidental parameter problem by maximizing the likelihood function condtional on the sum of the dependent variable within

each group ($\sum_{t=1}^{t=T} y_{it}$), thus controlling for group-level heterogeneity without actually including the group dummies (α_i) in the model.[2] This strategy has been shown to perform better than standard logit with fixed effects when the number of observations per group is small, as is the case in my sample (both regarding firm fixed effects and claim fixed effects).[3]

[2]Chamberlain (1980).

[3]Beck (2018); Katz (2001).

[3]Model 2 contains year dummies, rather than maximizing the likelihood conditional on the sum of the dependent variable in each year, as the latter failed to estimate. However, the end result - adjusting for unobserved heterogeneity at the year level - is the same.

1.4 Logit models with MSCI ESG rating control

Table 4: **UNGC membership and response behavior; logit models with MSCI ESG rating control**

	Dependent variable:			
	Responded to claim = 1			
	(1)	(2)	(3)	(4)
UNGC Member	0.808**	1.028**	1.243***	1.676***
	(0.372)	(0.422)	(0.446)	(0.585)
Prior Claims	−0.021	−0.001	−0.024	0.023
	(0.034)	(0.037)	(0.050)	(0.064)
Total Assets (log)	0.0004	0.075	0.098	0.282*
	(0.120)	(0.130)	(0.144)	(0.166)
ESG Rating	0.894**	0.666	1.251***	0.851
	(0.362)	(0.408)	(0.478)	(0.624)
CS Freedom (home state)		0.101	0.088	0.227
		(0.228)	(0.263)	(0.320)
CS Freedom (host state)		0.231*	0.191	0.202
		(0.121)	(0.128)	(0.144)
Year FE			✓	✓
Sector FE				✓
Observations	314	277	277	276
Log Likelihood	−148.376	−128.322	−120.227	−108.018
Akaike Inf. Crit.	306.751	270.644	276.455	282.036

Note: *p<0.1; **p<0.05; ***p<0.01
Constant term included but not reported.

1.5 First stage results for 2SLS models

Table 5: **First stage results**

	Dependent variable:					
	UNGC Member					
	(1)	(2)	(3)	(4)	(5)	(6)
UNGC membership (sector, $t-1$)	0.309***	0.195*	0.142	0.292**	−0.079	0.036
	(0.109)	(0.116)	(0.123)	(0.145)	(0.183)	(0.399)
UNGC membership (home state, $t-1$)	0.836***	0.809***	0.826***	0.881***	0.910***	0.920***
	(0.049)	(0.049)	(0.053)	(0.057)	(0.056)	(0.058)
Prior Claims		0.011***	0.010***	0.012***	0.004	0.004
		(0.002)	(0.002)	(0.002)	(0.003)	(0.003)
Total Assets (log)		0.034***	0.035***	0.040***	0.064***	0.063***
		(0.008)	(0.009)	(0.009)	(0.012)	(0.012)
CS Freedom (home state)			−0.022	−0.037**	−0.034**	−0.039**
			(0.016)	(0.017)	(0.017)	(0.017)
CS Freedom (host state)			0.031***	0.037***	0.026***	0.028***
			(0.010)	(0.010)	(0.010)	(0.010)
Year FE				✓		✓
Sector FE					✓	✓
Observations	1,509	1,455	1,260	1,260	1,260	1,260
R^2	0.183	0.209	0.224	0.236	0.293	0.299
Adjusted R^2	0.182	0.207	0.220	0.223	0.279	0.278
Residual Std. Error	0.452	0.445	0.441	0.440	0.423	0.424
Note:	Constant term included but not reported. *p<0.1; **p<0.05; ***p<0.01					

References

Beck, Nathaniel. 2018. "Estimating grouped data models with a binary dependent variable and fixed effects: What are the issues." *Working paper* pp. 1–21.
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Chamberlain, Gary. 1980. "Analysis of Covariance with Qualitative Data." *The Review of Economic Studies* 47(1):225.

Katz, Ethan. 2001. "Bias in Conditional and Unconditional Fixed Effects Logit Estimation." *Political Analysis* 9(4):379–384.