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### Employment litigations and ESG report transparency 雇用訴訟とESGレポートの透明性

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## Why a research about employment litigations and ESG?

- The last decade witnessed a significant shift in the way businesses approach social responsibility.
- ❖ Domestic and international firms face pressure from shareholders, local governments, international organizations, and other stakeholders to align their strategy with ESG issues.
- \*Failures to meet expected ESG performance standards negatively influence corporate reputation and profitability.
  - → Firm increases to communicate their sustainability initiatives via many different channels, ex: ESG reports.
- ❖One might expect that this increase in ESG disclosure reduces information asymmetries and helps investors better understand the firms' ESG efforts.
- **But** do firms make an adequate and balanced reporting of their ESG performance?



## Why a research about employment litigations and ESG?

- •In the ESG field, social (S) aspect has been less considered than the governance (G) and environmental (E) aspects though it is very important as it is directly related to human beings.
- Employment litigations are a clear measure of the social performance of a company.
  - Employment litigation shows the degree of conflictual relationship between employers and employees.
  - Employment litigation can influence firm's motivation to disclose ESG information.



#### Empirical works so far

- ➤ In ESG area, most of previous studies investigated the relation between ESG and financial performance. Several authors analyzed the performance of ESG investing, ESG ratings, or ESG regulations (e.g., Cornell, 2021; Avramov et al., 2022; and Singhania et al., 2021).
- ➤ Hackett et al. (2020) is the only study that investigates the direct link between ESG risks and employment litigations. According to the authors, ESG related litigations have increased strongly these later years.
- Litigation and capital structure (Unsal, 2021): Reducing short-term debt while increasing long-term debt.
- Litigation and reputation (Liu et al., 2016): Reducing the reputation of the CEO.
- Litigation and stock performance (Zuo et al., 2022): Greater risk of falling stock prices.
  - No available research about the effects of employment litigations on non-financial dimensions like ESG reporting transparency



#### Research motivation

- Few research analyze the impact of employee relations on ESG performance and disclosure.
- This research fills the research gap by providing empirical evidence about the correlation between employment lawsuits at the firm level and the resulting ESG performance and disclosure.



- We use the data sample of American firms in the S&P 500 index.
  - US have been known as the country with the highest number of litigations.
  - Employee lawsuits in the US have risen 400% in the past 20 years (Rayfield and Unsal, 2020).
  - 25% of all litigations in the federal court system are related to employment allegations (Unsal et al. ,2017). Annual direct litigation cost of Fortune 500 companies are huge.



- ❖We collect data for the companies of the S&P 500 index from 2013 to 2021, using Bloomberg terminal, including No. of litigations that a company has in 74 litigation categories.
- The result novelty is its database. We must enter the data by hand because we cannot download the historical data for this function, and the categories of disputes are not the same for companies
- ❖Among the 74 categories of litigations → the most frequent categories of litigations: employment and patents.



- ❖We used the Bloomberg ESG disclosure score to gauge the transparency of firms' ESG reports.
- ❖The score ranges from 0 to 100, with 100 representing maximum transparency.



- ❖ We also collected ESG scores of MSCI of S&P 500 firms during the 2013-2021 period.
- Bloomberg ESG score reflects ESG reporting transparency while MSCI ESG score measure a firm's ESG risk management capacity.
- Concretely, MSCI ESG scores measure how well a firm is managing ESG risks.
  - The higher is the score, the better the company is managing ESG risks and opportunities.



### Theory framework

#### Stakeholder theory

- ✓ Employees are major corporate stakeholders → building good employee relations can contribute to the firm value and vice versa.
- ✓ The company needs to respond to requests from its stakeholders, such as employees and investors, including requests for information.
- ✓ Firms with poor employee relations will report less on social aspects, resulting a lower social disclosure score

#### Information asymmetry theory

- ✓ Company management have more information than employees and investors, including information on litigation.
- Firms with good employee relations should have few labor lawsuits, releasing more information about their ESG activities.
- → Firms facing an increase in employment litigations often disclose less social performance information, and compensating by releasing more governance or environmental information.



#### Research hypotheses

#### <u>Hypothesis 1: Employment litigations and ESG disclosure</u>

H1a. A higher number of employment litigations is associated with a lower social disclosure score.

H1b. A higher number of employment litigations is associated with a higher governance disclosure score.

H1c. A higher number of employment litigations is associated with a higher environmental disclosure score.

#### Hypothesis 2: Employment litigations and ESG performance

H2a. A higher number of employment litigations is associated with a lower MSCI social score

H2b. A higher number of employment litigations is associated with a higher MSCI governance score.

H2c. A higher number of employment litigations is associated with a higher MSCI environmental score.



### Methodology framework

◆ Baseline regression:

$$y_{it} = \alpha_i + \gamma_t + \beta_1 \text{Employment } Litigation_{it} + \theta' z_{it},$$
 (1)

where  $\alpha_i$  is the firm fixed effect (unobserved heterogeneity),  $\gamma_t$  is the year fixed effect,  $y_{it}$  represents the ESG scores from Bloomberg or MSCI and  $z_{it}$  is the vector of the control variables. Furthermore, we disentangle the ESG score into its three individual components: Environment (E), Social (S), and Governance (G), separately.

Empirical results are obtained via panel data regressions, either fixed or random effects; reverse causality regression and several sensitivity analyses.



#### Results 1: Baseline model

Table 6: Baseline regression results with Bloomberg and MSCI ESG score

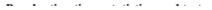
	Bloomberg Disclosure Score				MSCI Rating				
	(1a)	(2a)	(3a)	(4a)	(1b)	(2b)	(3b)	(4b)	
VARIABLES	ESG Dis.	E Pillar	S Pillar	G Pillar	ESG Rat.	E Pillar	S Pillar	G Pillar	
Empl. Litig.	-0.0037	-0.0333	0.0059	0.0164*	-0.0037	0.0114	0.0009	-0.0053	
	[0.0334]	[0.0539]	[0.0519]	[0.0081]	[0.0108]	[0.2474]	[0.0074]	[0.0063]	
Size	1.6817**	2.1773	2.6330**	0.2404	-0.2879	-0.4847	-0.6474***	-0.3589**	
	[0.7997]	[1.4305]	[1.0185]	[0.7284]	[0.2562]	[0.8173]	[0.1955]	[0.1436]	
PBR	-0.0059**	-0.0089**	-0.0065	-0.0022	-0.0027	-0.0106**	-0.0013	0.0007	
	[0.0026]	[0.0038]	[0.0042]	[0.0019]	[0.0020]	[0.0041]	[0.0010]	[0.0005]	
Ln Tot. Liab.	-1.1715*	-1.4737	-2.0868**	0.0412	0.0043	-2.1158***	0.3224	0.2839**	
	[0.6811]	[1.1513]	[0.8314]	[0.9163]	[0.2212]	[0.6958]	[0.1667]	[0.1307]	
ROA	-0.0047	-0.0256	0.0065	0.0052*	0.0059	-0.0272	0.0039*	0.0099**	
	[0.0182]	[0.0347]	[0.0214]	[0.0198]	[0.0051]	[0.0202]	[0.0043]	[0.1285]	
Constant	33.5973***	10.2742	10.2655*	80.0764***	7.0362***	28.9863***	7.4732***	7.4527***	
	[4.3470]	[7.7951]	[5.3580]	[5.1975]	[1.1724]	[4.4669]	[1.0326]	[0.4756]	
Observations	4509	4509	4509	4509	4509	4509	4509	4509	
Hausman test	28.3057***	29.8868***	16.6926***	11.444**	11.3203**	43.1135***	21.4108***	5.77462	
Estimation	FE	FE	FE	FE	FE	FE	FE	RE	
Poolability test	81.5087***	72.9445***	54.5626***	21.845***	56.9189***	4.2766***	30.34***	24.4095***	
Test time dum	974.279***	513.994***	664.811***	494.999***	171.298***	558.262***	105.641***	552.302	
Time dummy	YES	YES	YES	YES	YES	YES	YES	YES	
F-Stat	4.2472**	2.2243***	2.0875*	0.7666	1.7352	9.1675***	3.095***	16.5699***	
R-squared	0.8892	0.8700	0.8433	0.6648	0.7651	0.5379	0.7021	0.5549	



## Results 2: Reverse causality regression

Table 7: Endogeneity check with a reverse causality regression.

	I	Bloomberg Di	sclosure Sco	re		MSCI	Rating	
	(1a)	(2a)	(3a)	(4a)	(1b)	(2b)	(3b)	(4b)
VARIABLE		Employmen	t litigations			Employmer	nt litigations	
ESG	-0.0015 [0.0143]	-		-	-0.0266 [0.0767]	-	-	-
E	-	-0.0040 [0.0066]	-	-	-	0.0031 [0.0068]	-	-
S	-	-	0.0014 [0.0126]	-	-	-	0.0092 [0.0733]	-
G	-	-	-	0.0094 [0.0096]	-	-	-	0.0276 [0.0658]
Size	0.3670	0.3730	0.3605	0.3620	0.5586	0.5679	0.5724	0.5720
	[0.3405]	[0.3398]	[0.3378]	[0.3383]	[0.4723]	[0.4750]	[0.4888]	[0.4727]
PBR	-0.0037	-0.0037	-0.0037	-0.0036	-0.0100	-0.0099	-0.0100	-0.0100
	[0.0039]	[0.0039]	[0.0039]	[0.0039]	[0.0066]	[0.0065]	[0.0065]	[0.0065]
Ln Tot. Liab.	-0.1242	-0.1283	-0.1193	-0.1227	-0.0954	-0.0888	-0.0986	-0.1048
	[0.2240]	[0.2196]	[0.2287]	[0.2159]	[0.2679]	[0.2706]	[0.2709]	[0.2723]
ROA	0.0005	0.0004	0.0005	0.0004	-0.0041	-0.0042	-0.0043	-0.0045
	[0.0079]	[0.0080]	[0.0079]	[0.0079]	[0.0096]	[0.0097]	[0.0096]	[0.0098]
Constant	0.8289	0.8174	0.7614	0.0169	-1.0028	-1.2831	-1.2599	-1.3431
	[2.7055]	[2.5441]	[2.5921]	[2.5889]	[3.6025]	[3.5811]	[3.8015]	[3.5204]
Observations	4509	4509	4509	4509	4509	4509	4509	4509





## Robustness check 1: Size-adjusted number of employment litigations

Table 12: Robustness check 1 – Size-adjusted number of employment-litigations.

	Bloomberg Disclosure Score				MSCI Rating				
	(1a)	(2a)	(3a)	(4a)	(1b)	(2b)	(3b)	(4b)	
VARIABLES	ESG Dis.	E Pillar	S Pillar	G Pillar	ESG Rat.	E Pillar	S Pillar	G Pillar	
Empl. Litig. Size Adj.	-0.0958	-0.5135	0.0295	0.1956**	-0.0417	0.1334	-0.1008*	-0.0325	
	[0.3844]	[0.6155]	[0.5941]	[0.0918]	[0.1213]	[0.2797]	[0.0515]	[0.0656]	
Size	1.7106**	2.2142	2.6740***	0.2495	-0.2886	-0.4827	-0.3205**	-0.3618**	
	[0.7996]	[1.4299]	[1.0193]	[0.7280]	[0.2562]	[0.8171]	[0.1415]	[0.1438]	
PBR	-0.0058**	-0.0089**	-0.0064	-0.0021	-0.0027	-0.0105**	-0.0010*	0.0006	
	[0.0025]	[0.0037]	[0.0042]	[0.0019]	[0.0019]	[0.0041]	[0.0006]	[0.0005]	
Ln Tot. Liab.	-1.1746*	-1.4751	-2.0923**	0.0387	0.0040	-2.115***	0.1928	0.2824**	
	[0.6814]	[1.1519]	[0.8315]	[0.9170]	[0.2211]	[0.6958]	[0.1248]	[0.1309]	
ROA	-0.0049	-0.0258	0.0060	0.0050	0.0060	-0.0272	0.0027	0.0098**	
	[0.0181]	[0.0347]	[0.0213]	[0.0197]	[0.0051]	[0.0202]	[0.0041]	[0.0041]	
Constant	33.3446***	9.9488	9.9236*	79.9849***	7.0459***	28.9556***	5.5200***	7.4870***	
	[4.3461]	[7.7857]	[5.3707]	[5.2072]	[1.1732]	[4.4676]	[0.4473]	[0.4775]	
Observations	4500	4500	4500	4500	3975	3975	3975	3975	
Hausman test	27.5379***	29.3229***	16.098***	11.1082**	11.0726**	43.1199***	21.6893***	6.7308	
Estimation	FE	FE	FE	FE	FE	FE	FE	RE	
Poolability test	81.8911***	73.2941***	54.8989***	21.8132***	57.1514***	4.2122***	30.6537***	27.1178***	
Test time dummy	968.175***	509.778***	652.092***	492.895***	171.393***	558.37***	105.598***	552.298***	
Time dummy	YES	YES	YES	YES	YES	YES	YES	YES	
F Stat	2.5340**	2.3542**	2.4213**	0.7313	1.7399	9.1821***	3.0680***	16.3214***	
R-squared	0.8893	0.8701	0.8436	0.6637	0.7651	0.5379	0.7020	0.5048	



# Robustness check 1: Lagged-1 values of the number of employment litigations

Table 13: Robustness check 1 - Lagged-1 values of the number of employment litigations.

	1	Bloomberg D	isclosure Scor	re		MSCI	Rating	
	(1a)	(2a)	(3a)	(4a)	(1b)	(2b)	(3b)	(4b)
VARIABLES	ESG Dis.	E Pillar	S Pillar	G Pillar	ESG Rat.	E Pillar	S Pillar	G Pillar
Empl. Litig.	-0.0172	-0.0295	-0.0265	0.0044	-0.0038	0.0335	0.0004	0.0090
	[0.0290]	[0.0495]	[0.0421]	[0.0140]	[0.0068]	[0.0279]	[0.0068]	[0.0062]
Lag Empl. Litig.	0.0101	0.0078	0.0032	0.0193*	-0.0083	-0.0507*	0.0038	-0.0144**
	[0.0222]	[0.0415]	[0.0327]	[0.0095]	[0.0052]	[0.0304]	[0.0046]	[0.0069]
Size	1.8516**	2.5338*	2.5557**	0.4704	-0.1493	-0.7284	-0.4544**	-0.390***
	[0.8648]	[1.5244]	[1.0984]	[0.7493]	[0.1828]	[0.9555]	[0.1846]	[0.1412]
PBR	-0.0058**	-0.0084**	-0.0063	-0.0027	-0.0014	-0.0107**	-0.0011	0.0006
	[0.0026]	[0.0033]	[0.0043]	[0.0019]	[0.0014]	[0.0044]	[0.0009]	[0.0005]
Ln Tot. Liab.	-1.2665*	-1.3153	-1.9452**	-0.5420	0.0478	-2.253***	0.1085	0.2712**
	[0.7235]	[1.2849]	[0.9327]	[0.7160]	[0.1620]	[0.8165]	[0.1614]	[0.1297]
ROA	-0.0042	-0.0192	0.0041	0.0022	0.0074	-0.0242	0.0022	0.0093**
	[0.0180]	[0.0341]	[0.0230]	[0.0140]	[0.0050]	[0.0221]	[0.0042]	[0.0041]
Constant	46.9160***	24.2712***	25.5559***	90.7559***	6.5948***	51.338***	8.2422***	6.3188***
	[4.5682]	[8.6883]	[5.8617]	[3.3304]	[0.6680]	[5.8350]	[1.1510]	[0.4465]
Observations	4008	4008	4008	4008	3584	3584	3584	3584
Hausman Test	27.289***	22.522***	14.7242**	18.2304***	10.1433	40.715***	19.5224**	3.9622
Estimation	FE	FE	FE	FE	RE	FE	FE	RE
Poolability test	83.165***	73.6978***	57.6922***	22.7356***	65.409***	3.6335***	33.4614***	9.2831***
Test time dummy	896.155***	460.976***	603.336***	481.428***	167.001***	537.149***	103.585***	537.593***
Time dummy.	YES	YES	YES	YES	YES	YES	YES	YES
F Stat	2.3374**	2.4119**	1.8653*	0.8335	11.2261*	7.2699***	2.4978**	24.463**
R-squared	0.8989	0.8816	0.8546	0.6983	0.7947	0.5390	0.7461	0.5157



#### Robustness check 2: with CSR variables

Table 14: Robustness check 2 - With CSR variables.

	1	Bloomberg Di	isclosure Scor	e	MSCI Rating				
	(1a)	(2a)	(3a)	(4a)	(1b)	(2b)	(3b)	(4b)	
VARIABLES	ESG Dis.	E Pillar	S Pillar	G Pillar	ESG Rat.	E Pillar	S Pillar	G Pillar	
Empl. Litig.	-0.0010	-0.0137	0.0103	0.0156*	-0.0035	0.0076	0.0008	-0.0051	
	[0.0314]	[0.0448]	[0.0499]	[0.0079]	[0.0107]	[0.0249]	[0.0074]	[0.0063]	
Size	1.4944**	3.0464**	2.4530**	0.0474	-0.2958	-0.3893	-0.652***	-0.381***	
	[0.7575]	[1.1945]	[0.9946]	[0.7076]	[0.2559]	[0.8155]	[0.1954]	[0.1450]	
PBR	-0.0056**	-0.0058*	-0.0064	-0.0016	-0.0026	-0.0103**	-0.0013	0.0007	
	[0.0026]	[0.0035]	[0.0044]	[0.0014]	[0.0019]	[0.0043]	[0.0009]	[0.0005]	
Ln Tot. Liab.	-1.0338	-0.8236	-2.0213**	0.3122	0.0115	-2.127***	0.3294**	0.2911**	
	[0.6481]	[1.0047]	[0.8078]	[0.9082]	[0.2210]	[0.6909]	[0.1665]	[0.1311]	
ROA	-0.0085	-0.0246	0.0008	0.0042	0.0059	-0.0248	0.0039	0.0105**	
	[0.0175]	[0.0331]	[0.0214]	[0.0183]	[0.0051]	[0.0201]	[0.0043]	[0.0042]	
CSR Training	4.7842***	4.8294***	3.4451***	6.8366***	0.0998	0.0641	0.1232	0.0956	
	[0.6734]	[1.2634]	[0.8780]	[0.3945]	[0.1385]	[0.5732]	[0.1147]	[0.1047]	
CSR Comm	1.7734***	3.0581	2.3674***	0.4107	-0.0232	-1.1565**	0.0309	0.0411	
	[0.3950]	[0.7708]	[0.5298]	[0.2528]	[0.1016]	[0.4559]	[0.0765]	[0.0877]	
Hea Saf Comm.	0.5090	2.7698***	-0.3044	0.8444	-0.1895	1.6207*	0.0948	0.2659**	
	[0.8653]	[1.3806]	[1.2547]	[0.6979]	[0.2021]	[0.9464]	[0.1560]	[0.1168]	
Constant	33.5297***	-5.1839	10.8268**	79.0182***	7.0788***	28.1790***	7.4283***	7.5417***	
	[4.1054]	[4.8246]	[5.1380]	[5.0826]	[1.1789]	[4.4970]	[1.0381]	[0.4821]	
Observations	4509	4509	4509	4509	3975	3975	3975	3975	
Hausman test	87.1483***	89.5394***	58.0223***	36.6434***	19.1555**	54.9***	24.9089***	10.3958	
Estimation	FE	FE	FE	FE	FE	FE	FE	RE	
Poolability test	61.1147***	62.3718***	37.5066***	29.8085***	73.9453***	4.7516***	32.1057***	12.1853**	
Test time dummy	843.955***	418.969**	561.56***	447.437***	136.809***	554.378***	83.6981***	543.906**	
Time dummy	YES	YES	YES	YES	YES	YES	YES	YES	
F Stat	11.0754***	4.13627***	5.9799***	44.3546***	1.2852	7.7055***	2.3978**	23.2409**	
R-squared	0.8966	0.8725	0.8478	0.7148	0.7653	0.5400	0.7024	0.5053	



### Robustness check 2: with governance variables

Table 15: Robustness check 2 - With governance variables.

	I	Bloomberg Di	sclosure Scor	e	MSCI Rating					
	(1a)	(2a)	(3a)	(4a)	(1b)	(2b)	(3b)	(4b)		
VARIABLES	ESG Dis.	E Pillar	S Pillar	G Pillar	ESG Rat.	E Pillar	S Pillar	G Pillar		
Empl. Litig.	-0.0046	-0.0297	-0.0254	0.0140*	-0.0059	0.0209	-0.0071	0.0144		
	[0.0282]	[0.0584]	[0.0488]	[0.0071]	[0.0107]	[0.0294]	[0.0046]	[0.0120]		
Size	2.1751***	2.3668	2.3536	-0.3496	-0.3526	-0.5155	-0.1343	-0.3790		
	[0.7002]	[1.6004]	[1.1016]	[0.5308]	[0.2392]	[0.9758]	[0.1341]	[0.2573]		
PBR	-0.0044**	-0.0073**	-0.0058	-0.0028	-0.0023	-0.0105	-0.0009*	0.0009		
	[0.0021]	[0.0033]	[0.0043]	[0.0018]	[0.0017]	[0.0043]	[0.0005]	[0.0013]		
Ln Tot. Liab.	-0.7994	-1.5252	-1.8803**	0.2464	-0.0149	-2.3779	0.0006	0.2780		
	[0.6081]	[1.3773]	[0.9435]	[0.4760]	[0.2036]	[0.8228]	[0.1194]	[0.2356]		
ROA	-0.0038	-0.0192	0.0028	-0.0006	0.0060	-0.0219	0.0013	0.0084*		
	[0.0177]	[0.0352]	[0.0239]	[0.0124]	[0.0050]	[0.0224]	[0.0041]	[0.0049]		
Women Board	0.0283	0.0243	0.0325	0.0124	0.0038	-0.0273	0.0016	0.0089		
	[0.0174]	[0.0377]	[0.0248]	[0.0128]	[0.0045]	[0.0268]	[0.0038]	[0.0061]		
Duality	0.1060	-1.1256	0.4867	0.2897	0.1120	-0.2369	0.0225	-0.1002		
	[0.3961]	[0.7367]	[0.5750]	[0.2429]	[0.1074]	[0.4908]	[0.0798]	[0.1175]		
Age	0.1267*	0.2665*	0.1901*	0.0245	0.0079	-0.0807	0.0078	0.0406*		
	[0.0750]	[0.1595]	[0.1117]	[0.0466]	[0.0206]	[0.0826]	[0.0137]	[0.0237]		
Comp. CEO	2.5e-9***	5.8e-9***	1.7e-9	1.3e-9**	1.1e-9***	-8,00E-10	-2.3e-11	1.4e-11		
	[6e-10]	[1.2e-9]	[1.2e-9]	[5.7e-10]	[3.1e-10]	[1.1e-9]	[2.3e-10]	[2e-10]		
CEO tenure	-0.0346	0.0025	-0.0181	0.0168	-0.0037	0.0319	9,00E-05	-0.0098		
	[0.0308]	[0.0591]	[0.0444]	[0.0185]	[0.0076]	[0.0401]	[0.0060]	[0.0089]		
Board size	0.0029	-0.0324	-0.0094	-0.0373	0.0314	0.0582	-0.0149	-0.0293		
	[0.0883]	[0.1831]	[0.1246]	[0.0584]	[0.0226]	[0.1112]	[0.0181]	[0.0290]		
Pct. Ind. Dir.	0.0425	0.0286	0.0135	0.0040	-0.0103	0.0321	0.0019	0.0020		
	[0.0276]	[0.0504]	[0.0354]	[0.0210]	[0.0104]	[0.0319]	[0.0067]	[0.0087]		
Board Meetings	-0.0175	-0.0665	0.0077	-0.0207	-0.0037	0.0453	0.0043	0.0016		
	[0.0332]	[0.0645]	[0.0379]	[0.0292]	[0.0066]	[0.0412]	[0.0059]	[0.0092]		



#### Robustness check 3: Sub-samples

Light vs. Heavy Industries

- Light industries include Consumer Discretionary, Consumer Staples, Healthcare, Financials, Information Technology, Communication Services, and Real Estates.
- Heavy industries include the Energy, Materials, Industrials, and Utilities sectors.



#### Robustness check 3: Sub-samples

Table 16: Robustness check 3 - Light vs. Heavy industries.

	F	Bloomberg Di	sclosure Scor	e	MSCI Rating				
	(1a)	(2a)	(3a)	(4a)	(1b)	(2b)	(3b)	(4b)	
VARIABLES	ESG Dis.	E Pillar	S Pillar	G Pillar	ESG Rat.	E Pillar	S Pillar	G Pillar	
Empl. Litig.	0.0132	-0.0189	0.0318	0.0268*	-0.0111	0.0395	-0.0050	-0.0073	
	[0.0383]	[0.0615]	[0.0596]	[0.0136]	[0.0091]	[0.0307]	[0.0076]	[0.0075]	
Treatment Industry	-0.0965	-0.0818	-0.1478	-0.0599	0.1883	0.0334***	-0.0129**	0.4731***	
	[0.0715]	[0.1219]	[0.1193]	[0.0396]	[0.1910]	[0.0123]	[0.0064]	[0.1193]	
DiD Coef.	1.6732**	-0.0233	-0.0122	-0.0132	0.0296*	-0.1701**	0.0359*	0.01493	
	[0.8002]	[0.0466]	[0.0234]	[0.0342]	[0.0176]	[0.0735]	[0.0209]	[0.0145]	
Size	-0.0060**	2.1701	2.6200**	0.2351	-0.1778	-0.5136	-0.641***	-0.378***	
	[0.0025]	[1.4323]	[1.0183]	[0.7275]	[0.1977]	[0.8169]	[0.1956]	0.1428	
PBR	-1.1648*	-0.0090**	-0.0066	-0.0022	-0.0015	-0.011***	-0.0011	0.0007	
	[0.6813]	[0.0038]	[0.0040]	[0.0020]	[0.0015]	[0.0042]	[0.0010]	[0.0005]	
Ln Tot. Liab.	-0.0045	-1.4680	-2.0765	0.0453	0.0695	-2.094***	0.3178*	0.3034**	
	[0.0181]	[1.1519]	[0.8317]	[0.9159]	[0.1755]	[0.6944]	[0.1666]	[0.1301]	
ROA	1.0253***	-0.0255	0.0067	0.0052	0.0070	-0.0270	0.0038	0.0111***	
	[0.1334]	[0.0347]	[0.0213]	[0.0197]	[0.0049]	[0.0202]	[0.0043]	[0.0041]	
Constant	33.6482***	10.3175	10.3436*	80.108***	5.3004***	29.1299***	7.4429***	7.3073***	
	[4.3541]	[7.8117]	[5.3524]	[5.1973]	[0.6150]	[4.4809]	[1.0369]	[0.4695]	
Observations	4509	4509	4509	4509	3975	3975	3975	3975	
Hausman test	35.0075***	38.3869***	19.6718***	15.9247**	12.0774*	47.7764***	36.6798***	7.5131	
Estimation	FE	FE	FE	FE	RE	FE	FE	RE	
Poolability test	72.2305***	65.3536***	49.711***	21.6726***	55.2577***	4.4279***	30.497***	7.8484***	
Test time dummy.	972.601***	513.59***	655.979***	495.256***	187.878***	552.446***	104.809***	554.077***	
Time dummy	YES	YES	YES	YES	YES	YES	YES	YES	
F Stat	2.3368**	1.9507*	2.2015**	1.1485	12.1125*	7.9839***	3.3812***	35.8532***	
R-squared	0.8891	0.8700	0.8434	0.6649	0.7652	0.5384	0.7026	0.5048	



#### Conclusion (1)

- 1. Empirical results show that employment litigations have a negative effect on both the social disclosure and social risk management scores.
- 2. Effect of employment litigations on the environmental and governance pillars is positive.



### Conclusion (2)

- 3. Corporate leverage, governance, CSR engagement, and institutional ownership, moderate the relationship between employment litigations and ESG scores.
- 4. Heavy-industry firms have a different behavior compared to those in light industries.



#### Research implication (1)

- 1. Employee relations play a significant role in determining firm-level ESG performance, which implies the role of employees as one of the most important stakeholders in corporate governance.
- 2. The results of this study emphasize the necessity of *giving more attention to the social aspect of ESG*, a sector often overlooked compared to environmental and governance factors.



#### Research implication (2)

- 3. This research *promotes the creation of a social taxonomy* to complement the existing environmental taxonomy. A social taxonomy would assist financial entities in directing capital toward firms meeting social standards and producing beneficial social impacts for employees and other stakeholders.
- 4. It also indicates the *need for including additional social metrics*, such as the number of employment litigations, in the ESG landscape.



#### Thank you for your attentions!

