

# Is ESG a Managerial Style?

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# Different ESG Performance



- ▶ Same industry
- ▶ Very Similar Ownership Structure
- ▶ Both are in S&P 500

However, Broadcom's Scope 1 carbon emission per unit of sale is of several times higher than Qualcomm

# Economically Important Question

**why do ESG practices and performance vary across firms?**

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- ▶ Leadership...?
- ▶ “Moving forward, collaboration with business - and the key CEOs in the world - is crucial when it comes to fighting climate change...”

— *H.E. António Guterres, Secretary-General UN*

## why do ESG practices and performance vary across firms?

- ▶ Leadership...?
- ▶ “Moving forward, collaboration with business - and the key CEOs in the world - is crucial when it comes to fighting climate change...”  
— *H.E. António Guterres, Secretary-General UN*
- ▶ Conference of Parties, the central body administering the implementation of the Paris Agreement, invites dozens of polluting firms' CEOs to the meeting to discuss what they can do.

**why do ESG practices and policies vary among firms?**



## Research Question

Whether individual top managers can impact a firm's ESG performance?

In other words, do they bring their own "style" in setting ESG policies?

If they do, how much do they matter?

# Bertrand and Schoar (2003) Fixed Effect Approach

- ▶ In the manager-firm panel in which the managers moved across firms

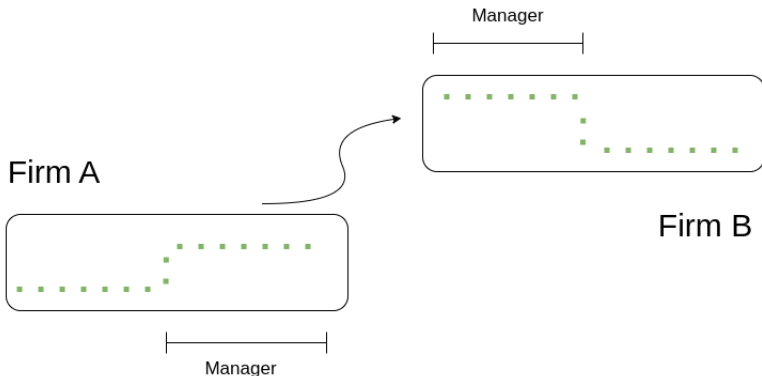
$$Y_{i,t+1} = \lambda_{Firm} + \lambda_{Manager} + \gamma_t + \beta X_{i,t} + \epsilon_{i,t+1}$$



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# Management Style and ESG Policies

Reliable indicators of ESG policies and performance

- ▶ Measure of CSR engagement: **MSCI KLD database**
- ▶ Employee satisfaction score (**Glassdoor.com**)
- ▶ Green Innovation (**USPTO & OECD**)
- ▶ Facility-level pollution (**U.S. Environmental Protection Agency (EPA) TRI program**)

Panel A: All top Executive-Movers						
		F-test for FEs				Adjusted $R^2$
	Fixed Effects	CEOs		Other executives		
CSR Overall	Firm					56.19%
CSR Overall	Firm, Manager	7.88	(0.00, 252)	12.44	(0.00, 677)	61.76% <b>5.57%</b>
Emp. Rating.	Firm					62.84%
Emp. Rating.	Firm, Manager	2.21	(0.00, 20)	2.06	(0.00, 55)	63.67% <b>0.83%</b>
Green Pat.	Firm					78.73%
Green Pat.	Firm, Manager	2.55	(0.00, 230)	17.23	(0.00, 684)	81.76% <b>3.03%</b>
Adj. RSEI Score	Facility					86.51%
Adj. RSEI Score	Facility, Manager	54.79	(0.00, 61)	6.69	(0.00, 113)	87.12% <b>0.61%</b>

Panel B: CEO-Movers Only						
		F-test for CEO FEs				Adjusted $R^2$
	Fixed Effects					
CSR Overall	Firm					54.93%
CSR Overall	Firm, CEO	4.70	(0.00, 58)			57.37% <b>2.44%</b>
Green Pat.	Firm					80.04%
Green Pat.	Firm, CEO	2.72	(0.00, 73)			81.50% <b>1.46%</b>
Adj. RSEI Score	Facility					89.57%
Adj. RSEI Score	Facility, CEO	5.99	(0.00, 11)			89.96% <b>0.39%</b>

- ▶ The effect on financial and investment policies is about 4% reported in Bertrand and Schoar (2003)
- ▶ The effect on ESG performance seems smaller

# Measuring ESG management style

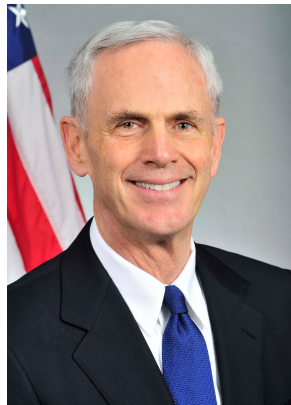
- ▶ So far we have documented the effect of managers on ESG policies using FE approach
- ▶ Which specific characteristic is captured in the FE?
- ▶ Can we somehow measure ESG management style?

# Measuring ESG management style

- ▶ Past professional experience can shape managerial styles  
(e.g. Custodio, Ferreira and Matos 2013, Benmelech and Frydman, 2015; Islam and Zein, 2020)
- ▶ We focus on CEO's working experience in Not-For-Profit organizations
  - ▶ Such exp. may reflect their ideology
  - ▶ NFP organizations pursue non-financial objectives
  - ▶ CEOs with such career experiences may better cater to a broader set of "stakeholders"

# Example – John Edgar Bryson

- ▶ Co-founded the Natural Resources of Defense Council (NRDC) - One of the largest non-profit Org in the US
- ▶ Was appointed as the CEO of Edison International:
  - ▶ For his talent in implementing environmental-friendly policies
  - ▶ Leading the firm to be a pioneer utility company in pursuing ESG objectives



# Time trends of NFP-CEOs

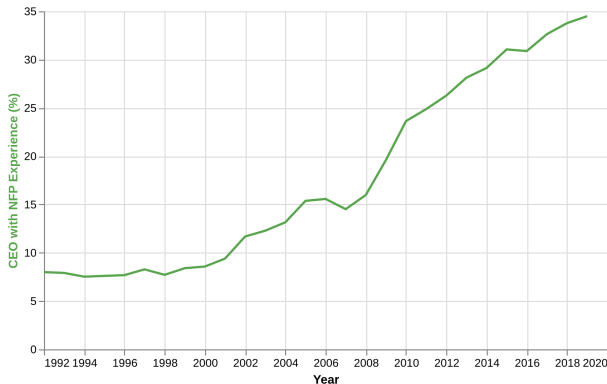


Figure: Percentage of NFP CEOs over time

# NFP CEOs and CSR Ratings

	CSR Overall							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>I<sub>NFP</sub></i>	0.095*** (5.28)		0.071*** (3.43)		0.092*** (2.85)		0.091*** (2.79)	
<i>C<sub>NFP</sub></i>		0.122*** (5.70)		0.105*** (4.39)		0.138*** (3.53)		0.136*** (3.45)
Year FE	✓	✓						
Industry FE	✓	✓						
Industry × Year FE			✓	✓	✓	✓	✓	✓
CEO-Firm-Pair FE							✓	✓
Firm FE			✓	✓				
CEO FE					✓	✓		
Obs.	20,717	20,717	18,746	18,746	18,100	18,100	18,053	18,053
Adj. <i>R</i> <sup>2</sup>	0.40	0.40	0.62	0.62	0.68	0.68	0.68	0.68

- ▶ *I<sub>NFP</sub>*: Indicator variable that equals to 1 if CEO has non-profit working experience;
- ▶ *C<sub>NFP</sub>*:  $\ln(1 + \text{Number of NFPs worked})$
- ▶ Control variables: firm characteristics (**firm size, leverage, ROA etc.**) and CEO characteristics (**age, tenure, other working experience, overconfidence, military, founder, education etc.**)
- ▶ Robustness: e.g. Removing CEOs who obtained NFP experience during tenure, removing firms with corporate NFP



# Employee Satisfaction

	Emp. Rating Overall		W/L Balance		Culture		Career Prosp.		Compensation		Management	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
<i>I<sub>SE</sub></i>	0.063*** (2.72)		0.030 (1.17)		0.068** (2.49)		0.043** (1.99)		0.039 (1.64)		0.066*** (2.89)	
<i>C<sub>SE</sub></i>		0.075*** (3.24)		0.023 (0.86)		0.073*** (2.62)		0.056** (2.58)		0.050* (1.94)		0.073*** (3.13)
Baseline Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Industry FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Obs.	4,606	4,606	4,606	4,606	4,606	4,606	4,606	4,606	4,606	4,606	4,606	4,606
Adj. <i>R</i> <sup>2</sup>	0.35	0.35	0.35	0.35	0.34	0.34	0.31	0.31	0.49	0.49	0.28	0.28

# Green Innovation

	Green Pat.		GHG		Air		Waste Mgmt.		Water		Water Cons.	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
<i>I</i> SE	0.075** (2.55)		0.073** (2.56)		0.033** (2.02)		0.007 (0.92)		0.009 (0.99)		0.025*** (2.64)	
<i>C</i> SE		0.087** (2.37)		0.082** (2.28)		0.041* (1.92)		0.015 (1.55)		0.019 (1.49)		0.036** (2.35)
All Pat.	0.137*** (11.17)	0.137*** (11.20)	0.124*** (10.40)	0.123*** (10.43)	0.037*** (5.89)	0.037*** (5.88)	0.016*** (5.57)	0.016*** (5.56)	0.020*** (5.99)	0.020*** (6.02)	0.014*** (4.42)	0.014*** (4.46)
Baseline Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Industry FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Obs.	14,442	14,442	14,442	14,442	14,442	14,442	14,442	14,442	14,442	14,442	14,442	14,442
Adj. <i>R</i> <sup>2</sup>	0.53	0.53	0.51	0.51	0.41	0.41	0.29	0.29	0.29	0.29	0.48	0.48

# Toxic Chemical Release

	Adj. RSEI Score		Adj. Hazard Score	
	(1)	(2)	(3)	(4)
<i>I<sub>NFP</sub></i>	-0.179** (-1.97)		-0.195** (-2.16)	
<i>C<sub>NFP</sub></i>		-0.252** (-2.35)		-0.295*** (-2.75)
Baseline Controls	✓	✓	✓	✓
Facility FE	✓	✓	✓	✓
Facility Industry × Year FE	✓	✓	✓	✓
State × Year FE	✓	✓	✓	✓
Obs.	34,168	34,168	39,183	39,183
<i>R</i> <sup>2</sup>	0.92	0.92	0.92	0.92

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Two tests to show the selection effect:

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	<i>I</i> <sub>NFP</sub> of the successive CEO			
	(1)	(2)	(3)	(4)
<i>I</i> <sub>NFP</sub> of the dismissed CEO	0.294*** (17.77)	0.067*** (3.55)		
Has CSR committee			0.065** (2.55)	0.013 (0.34)
Baseline Controls	✓	✓	✓	✓
Year FE	✓	✓	✓	✓
Industry FE	✓		✓	
Firm FE		✓		✓
Obs.	4,741	3,885	3,870	3,101

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# Idiosyncratic Style

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- ▶ Using the sample of exogenous CEO turnovers (deaths, illness...)
- ▶ Sudden change of one type of CEO to another should not reflect changes in the corporate strategy



# Idiosyncratic Style

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- ▶ Using the sample of exogenous CEO turnovers (deaths, illness...)
- ▶ Sudden change of one type of CEO to another should not reflect changes in the corporate strategy
- ▶ Diff-in-Diff around exogenous turnover events

$$Y_{i,t+1} = \alpha + \beta_1 Treat_i \times Post_{i,t} + \beta_2 Treat_i + \beta_3 Post_{i,t} + \epsilon_{i,t+1} \quad (1)$$

- ▶ Treated firms - Switch from NFP-CEO to non-NFP-CEO
- ▶ Control firms - Switch from non-NFP-CEO to non-NFP-CEO

# Idiosyncratic Style Analysis

- Mean adjusted CSR score from  $t-3$  to  $t+3$  relative to the event year

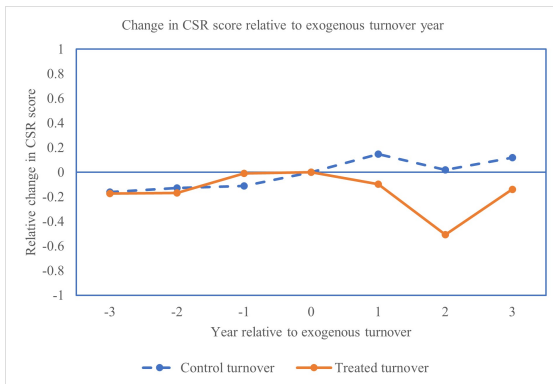


Figure: DID analysis of exogenous turnovers

# Idiosyncratic Style Analysis

**Panel A** - All exogenous turnovers

	CSR Overall	Emp. Rating Overall	Green Pat.
	(1)	(2)	(3)
Treat $\times$ Post	-0.238** (-2.12)	-0.113 (-0.29)	-0.034 (-0.40)
Post	-0.051 (-0.60)	0.339 (1.00)	-0.062 (-0.96)
Baseline Controls	✓	✓	✓
Firm FE	✓	✓	✓
Year FE	✓	✓	✓
Obs.	281	79	281
Adj. $R^2$	0.62	0.90	0.87

# Idiosyncratic Style Analysis

- ▶ Even if we consider exogenous CEO turnover events, we cannot completely eliminate endogeneity concerns because the selection of a new CEO by the board is always endogenous.
- ▶ To mitigate this issue, we limit our sample to turnover events that occur when there is a limited pool of potential replacement CEOs as in Fee et al. (2013).
- ▶ We only include firms that have their headquarters in low-population-density areas.

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**Panel B** - Exogenous turnovers in firms with headquarters in low-density population areas

	CSR Overall	Emp. Rating Overall	Green Pat.
	(1)	(2)	(3)
Treat × Post	-0.481*** (-4.12)	-0.281 (-0.55)	-0.006 (-0.12)
Post	-0.016 (-0.15)	0.061 (0.26)	-0.075 (-1.62)
Baseline Controls	✓	✓	✓
Firm FE	✓	✓	✓
Year FE	✓	✓	✓
Obs.	149	51	149

# NFP CEOs and Financial Performance

- ▶ Do NFP-CEOs sacrifice their firms' financial performance for ESG Commitments?

	Q		ROA		Mgmt. Score		Firm Eff.		ln(Total Pay)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<i>I<sub>NFP</sub></i>	0.050 (1.59)		0.003 (1.52)		0.006 (1.12)		0.009* (1.69)		-0.037 (-1.04)	
<i>C<sub>NFP</sub></i>		0.068* (1.91)		0.003 (1.49)		0.006 (0.91)		0.012* (1.82)		-0.023 (-0.70)
Baseline Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Industry FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Obs.	22,778	22,778	22,779	22,779	16,144	16,144	16,144	16,144	23,440	23,440
Adj. <i>R</i> <sup>2</sup>	0.38	0.38	0.17	0.17	0.36	0.36	0.49	0.49	0.40	0.40

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<i>C<sub>NFP</sub></i>		0.068* (1.91)		0.003 (1.49)		0.006 (0.91)		0.012* (1.82)		-0.023 (-0.70)
Baseline Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Industry FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Obs.	22,778	22,778	22,779	22,779	16,144	16,144	16,144	16,144	23,440	23,440
Adj. R <sup>2</sup>	0.38	0.38	0.17	0.17	0.36	0.36	0.49	0.49	0.40	0.40

**Answer: No**

# Conclusion

We find:

- ▶ CEOs have an impact on their company's ESG decisions and performance.  
— This is an important empirical fact because the leaders of large firms can bring changes to our world.
- ▶ Using FE approach, we find that management style has a smaller effect on ESG than it does on financial and investment policies.
- ▶ CEOs with previous non-profit experience are associated with better ESG performance.
- ▶ Boards have actively selected non-profit CEOs to achieve ESG-related objectives.
- ▶ At least some effects can be attributed to the CEO's idiosyncratic style.