Polarization and ESG Choice

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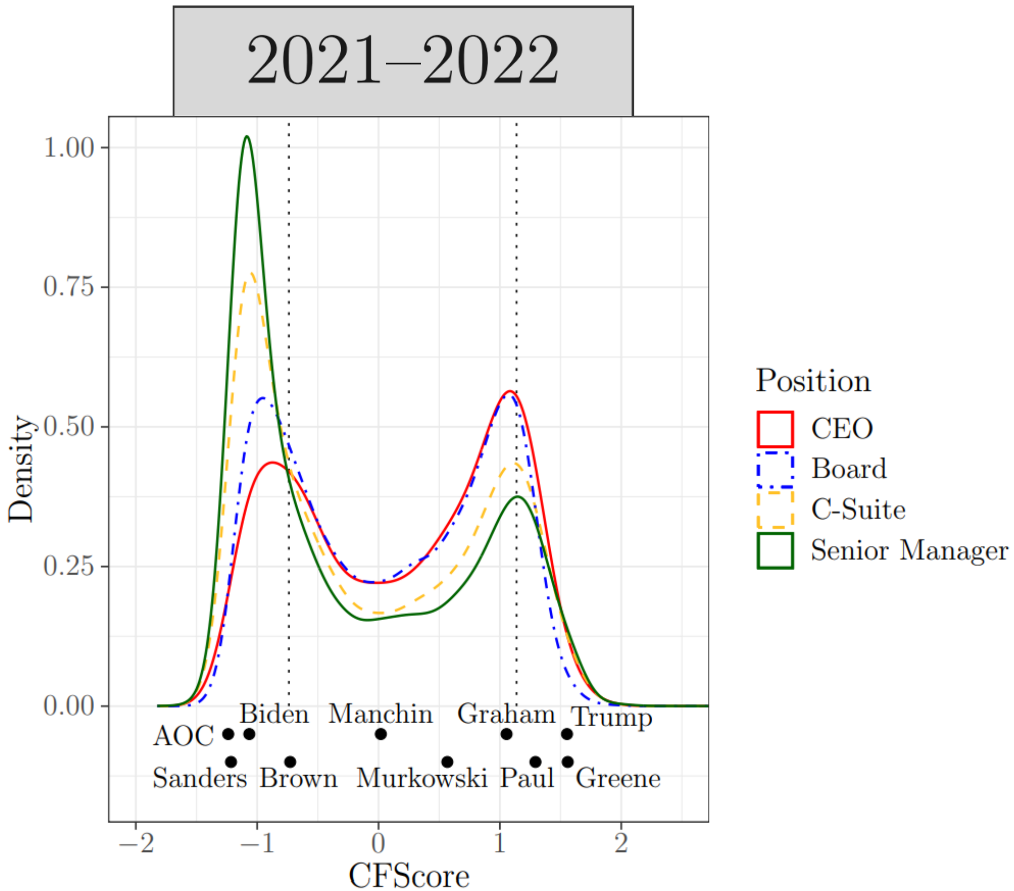
Disclaimer: none of the views expressed here are attributable to the Federal Reserve system

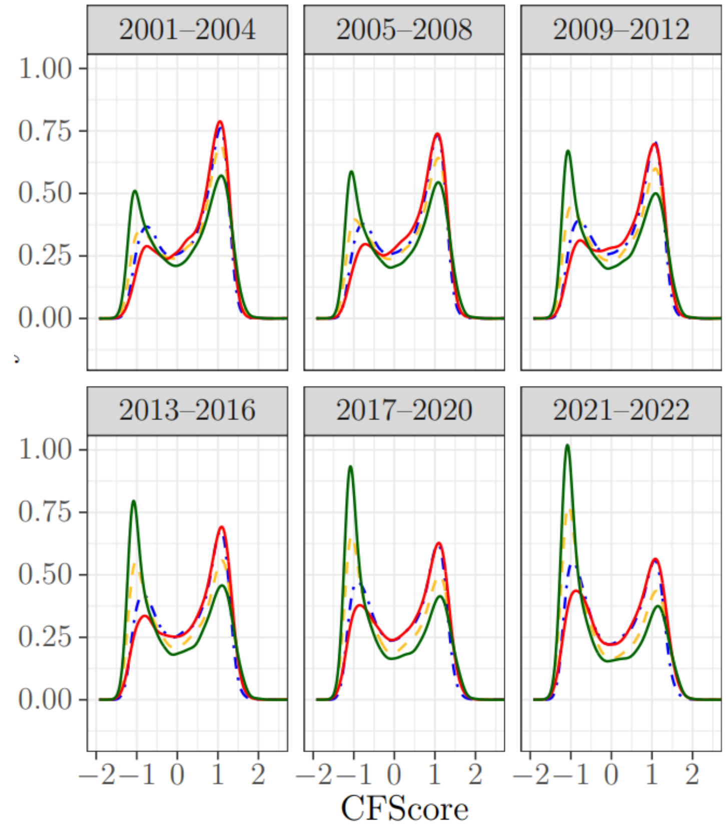
Preface

- This is work in progress
- Given the short time, I will focus on
  1. why we are writing this paper
  2. … sketch the model informally
  3. … and highlight the main results
- Formal treatment is in the paper

Why we are writing the paper

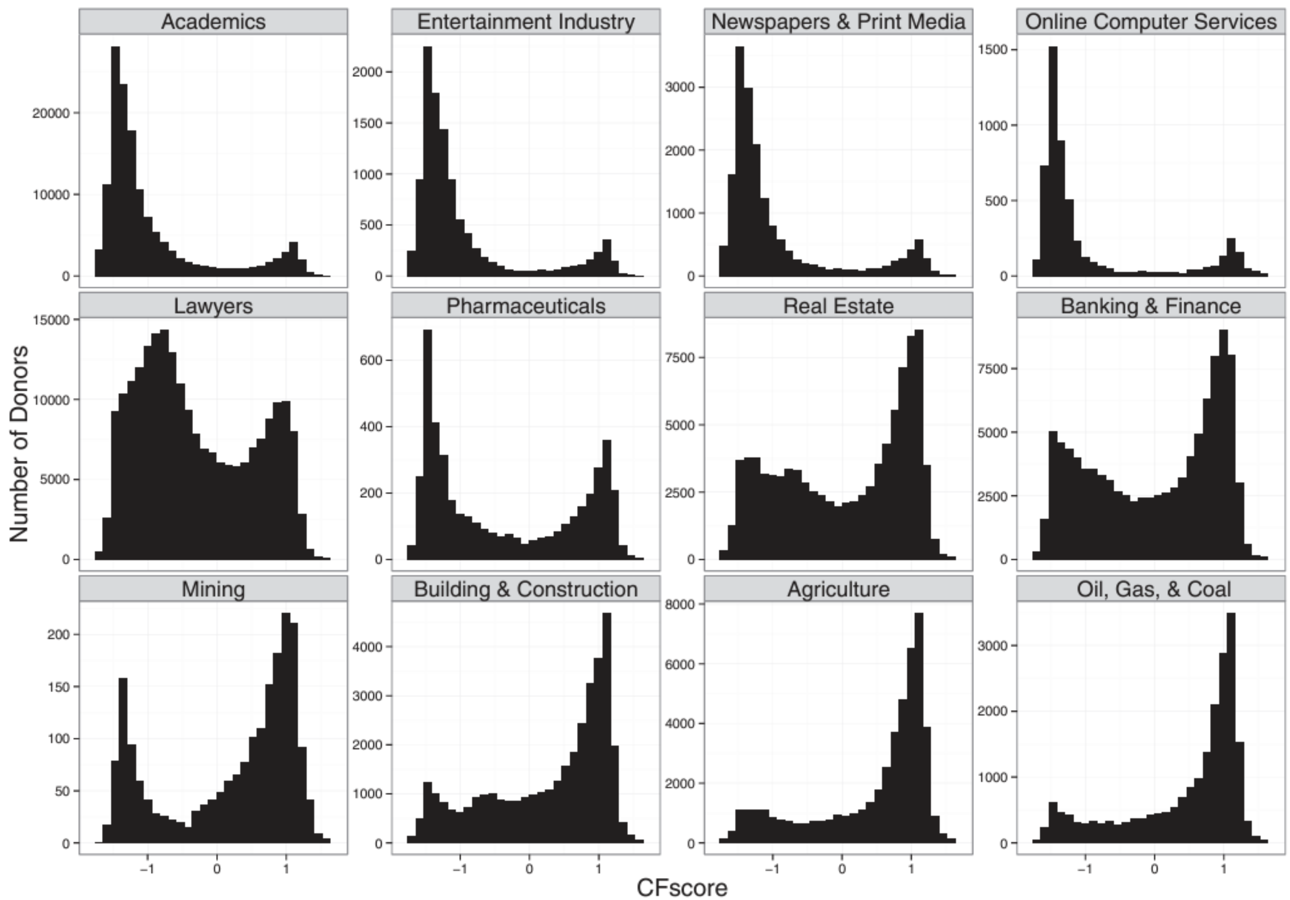
- Fact: political polarization is coming to corporate governance





Why we are writing the paper

- Arguably, corporate polarization reflects societal polarization
- … including retail investor polarization



Source: Bonica AJPS 2014

Why we are writing the paper

- How is ESG stance affected by corporate polarization?

- Until now, corporate stance on ESG has been determined by large institutional investors (large investment funds)

- Retail investors have mostly not weighed in
  - because corporate voting is cumbersome

- But there is a movement to empower individual investors (pass-through voting)

What we want to know

- *Q1 Is the current corporate ESG stance polarized*?
- **A**: No. Even though retail investor preferences may be polarized, large institutional investors push for stock-value maximization → ESG moderation

- *Q2 What will happen in a future with pass-through voting*?
- **A**: shareholder democracy will promote polarization → ESG choice will become more extreme on either side
- … and more sensitive to distribution of shareholder preferences

Setting (intuitively)

- Two types of agents (some of whom chose to become shareholders):
  - type A (their ideal ESG level is positive)
  - type B (don’t care for ESG, want to maximize profits)

- ESG: a firm-level profit-reducing activity (formally, a real number d) chosen alternatively by:
  - management under the influence of large institutional investors, or
  - retail investors, by majority voting (pass-through)

Agents' utility (mean-variance)

- Two types, $t = A, B$

- Type A's utility from purchasing q shares in a company with ESG level d is:

$$[\mu(d) + h_A(d) - p] \cdot q - r_A \sigma^2 \cdot q^2$$

- Type B's utility is

$$[\mu(d) - p] \cdot q - r_B \sigma^2 \cdot q^2$$

- $h_A(d)$ captures per-share value of ESG

- **Assumptions:**
  - $\mu(d)$ is decreasing in d (ESG reduces profits)
  - $\mu(d) + h_A(d)$ has a positive maximum (hence, type A's ideal level of ESG is positive)

Agents' ESG ideal points: extreme

- Type A's ideal ESG level is the (positive) d that maximizes:

$$[\mu(d) + h_A(d) - p] \cdot q - r_t \sigma^2 \cdot q^2$$

- Type B's ideal ESG level is zero, which is the d that maximizes:

$$[\mu(d) - p] \cdot q - r_t \sigma^2 \cdot q^2$$

- We regard these two ideal points as "extreme."

Demand-maximizing ESG level: moderate

- FOC's wrt q → demand for given price

- type A's demand: $\dfrac{\mu(d) + h_A(d) - p}{2r_A \cdot \sigma^2}$ maximized at A's ideal d

- type B's demand: $\dfrac{\mu(d) - p}{2r_B \cdot \sigma^2}$ maximized at B's ideal $d = 0$

- Total demand is the sum of A's and B's demand: it is maximized at some mid-point d *strictly between* A's and B's ideal points

- Hence, the ESG level that maximizes total demand for shares (and stock value) is *moderate*!

Interpretation: how ESG is chosen today

- Currently, ESG stance is determined by large investment funds (plausible)

- Large funds have sticky/inertia customers (both type A's and B's) , they seek to maximize their sticky customers' demand for shares by adopting a moderate ESG position
  - balance type A's and B's ideal points to maximize stock value

- Prediction 1: large funds with sticky customers should be more moderate
  - consistent with evidence: larger funds are more moderate on ESG

- Small funds don't have sticky customers, need to steal customers from other funds: they do so by segmenting and polarizing
  - many funds with different extreme stances

- Prediction 2: small funds polarize, they invest in very high or very low ESG firms
  - factual, and contrary to impact investing hypothesis

Our takeaways about the present

- Currently, the following forces push toward a moderate ESG stance

1. Large funds seek to maximize their current sticky customers' (both type A's and B's) investment in stock market by maximizing stock value
    - they pressure managers for moderate ESG

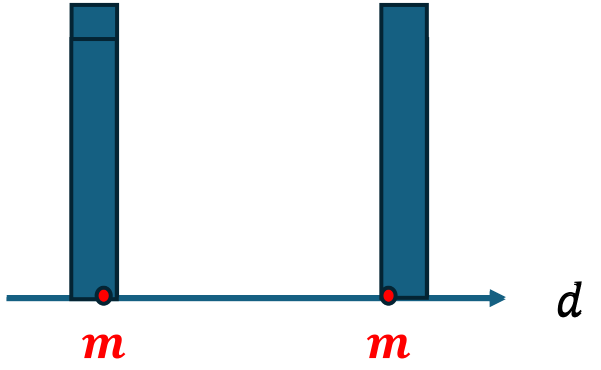
2. Also, management may seek to maximize stock value
    - especially if managers are compensated with stock
    - requires moderate ESG, as shown above

3. Also, large funds may want to appear politically moderate
    - large funds are easy scapegoats in the political debate

The future: our prediction for ESG with pass-through voting

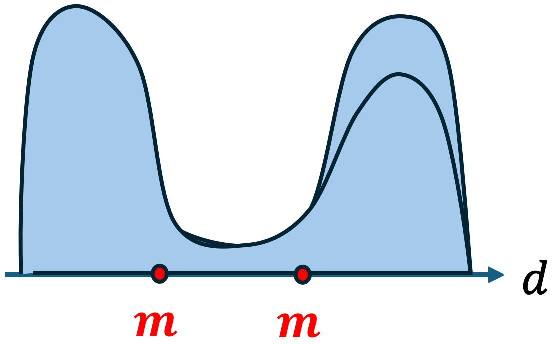
- In our two-type distribution, the median shareholder necessarily has “extreme” preferences
  - which of the two extremes depends on how many shareholders are type A’s or B’s

- That is, the median shareholder’s ideal point is very sensitive to the small changes in the distribution of shareholders



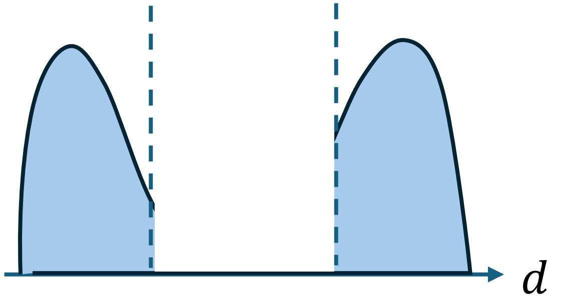
Pass-through voting in a polarized world

- Similarly, in the real world, if the distribution of shareholder preferences is polarized, the median shareholder's ideal point is sensitive to changes in the shareholder's distribution



Abstention reinforces polarization

- … and if moderates abstain, the median shareholder's ideal point is even more sensitive to changes in the shareholder's distribution



- A possible recommendation: to reduce polarization, make corporate voting easier

The future: our prediction for ESG with pass-through voting

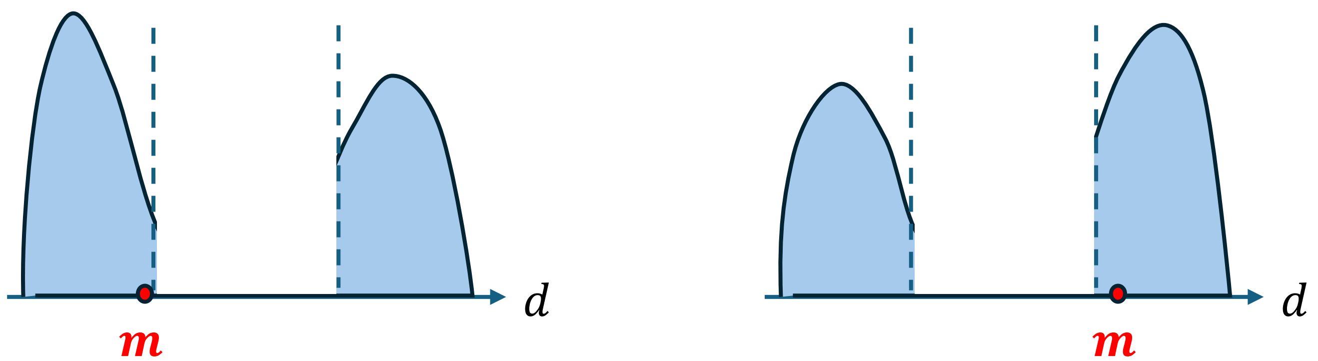
- ESG with pass-through voting will be extremal (all or nothing) because voter preferences are bi-modal
  - the median voter is extreme

- In contrast, stock-value maximization requires moderation
  - to attract a mixture of types A and B

- Also, more companies will go private to achieve the stock-value maximizing (i.e., moderate) level of ESG

Also, multiple equilibria

- If agents expect a high-ESG equilibrium, more type A's will buy than B's → self-confirming



- If agents expect a low-ESG equilibrium, more type B's will buy than A's → also self-confirming

- Multiple equilibria driven by new types of shareholders a' la meme stocks

- Interesting theoretically: voice + exit creates multiple equilibria

Multiple equilibria more likely when polarization is high

- With pass-through voting, multiple equilibria exist only when agents who are “inclined to” buy stocks are roughly equally divided among type A’s and B’s

- … that is, when the agents’ preferences are maximally polarized
  - by contrast polarization is low if most agents are of one type, either A or B

- Therefore, multiple equilibria (with hard-to-predict ESG levels) arise when polarization is high.

The present v the future, conceptually: exit and voice

- The present: ESG level is set to maximize stock value (i.e., to minimize shareholder **exit**)
  - no multiple equilibria
  - moderation

- The future: **exit** and **voice**, where both **exit** (how many shareholders of each type) and **voice** (shareholders voting) contribute to determining ESG levels
  - multiple equilibria
  - extremism (not surprising: partly relies on a non-transferable utility mechanism)

- But for retail investors, **voice** (shifting one's votes) is much cheaper than **exit** (selling one's shares)

- So, when shareholder **voice** matters (pass-through voting), expect lots of persuasion efforts
  - not boycotts or buycotts
  - rather, persuasion about how to vote one's shares
  - political entrepreneurs (Vivek Ramaswami, Engine 1) that intentionally polarize shareholders
  - … potentially decreasing trust in management

Next steps: empirical

- Are investors who directly own stocks polarized? What about those who invest through mutual funds?
- Can polarization happen even without pass-through voting?
- Can investors be polarized using political persuasion techniques?

Overall takeaways

- The present: large institutional investors impose a moderate ESG level that makes investing in the market reasonably attractive to both type A’s and B’s

- The future with pass-through: direct shareholder voting is expected to result in
  - large abstention
  - extreme (all-or-nothing) ESG policies driven by a few polarized shareholders
  - multiple self-fulfilling equilibria (a’ la meme stocks)
  - in general, politicization of corporate governance

- Potentially, going private may become more attractive for firms

- Disclaimer: we are not taking a position on whether implementing pass-through is good or bad
  - remember: work in progress!

THANK YOU !!