Exit vs. Voice

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Motivation

- In recent years, companies have come under increasing pressure to pursue environmental and social goals.

- In 2019, $20.6bn flowed to funds that explicitly divest from "non- sustainable" companies, more than 10 times the level a decade earlier (CBInsights (2020)).

- A recent survey suggests that 38% of Americans are currently boycotting at least one company, up from 26% only a year ago.

- In the last quarter of 2019, the term ESG (Environment, Social and Governance) was mentioned 357 times in earnings calls with CEOs versus only 49 times in the last quarter of 2016 (CBInsights (2020)).

- Some of this activity (divestment or boycotts) is undertaken for moral reasons.

- But some activists are consequentialists: they want to have an effect.

- To explain activism by consequentialists, we assume investors and consumers are _socially responsible_ (SR) in the sense that when they make a decision they put a positive weight $0 \leq \lambda \leq 1$ on the well-being of others affected by the decision.

$$U(c) + \lambda * E(\text{Net Impact of decision})$$

- Can Consequentialist Socially Responsible (CSR) agents have a meaningful impact?

- We analyze two strategies available to CSR agents:

1. Exit:
   a. divest from polluting companies
   b. refuse to buy their products
   c. (refuse to work for them)

2. Voice:

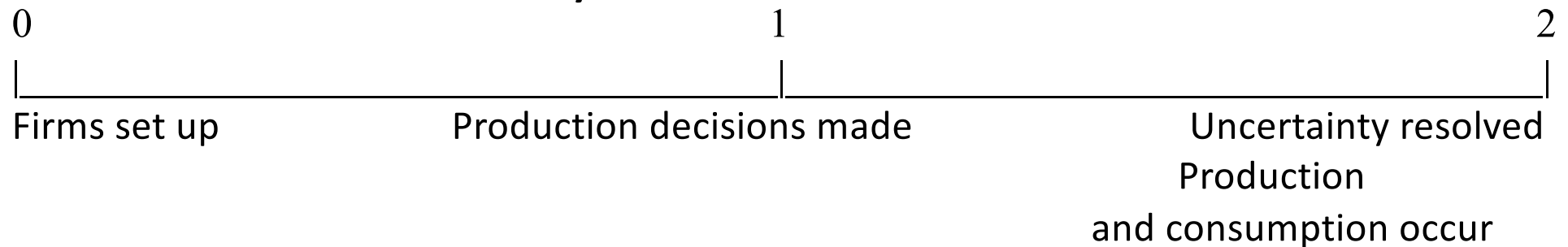   Engage with management, e.g., by voting

   Compare how they work in a competitive economy

   Conclusion: Exit is less effective than often thought.
   Voice is more effective than often thought.

Timing

- 3 date economy

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0                              1                              2
|_____|_____|__|
Firms set up          Production decisions made    Uncertainty resolved
                                                         Production
                                                    and consumption occur
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- Three distinct groups: entrepreneurs, investors, and consumers

- At date 0 entrepreneurs set up firms at cost F. Zero expected marginal cost up to capacity constraint one.

- Finance fixed cost by selling shares to investors.

- Put managers on an incentive schemes to maximize value

- At date 0 pollution is not an issue (and is not expected to be an issue)

- Competitive free entry equilibrium

- Basic economy has one consumer and one investor
- Consumer has quadratic utility, constant marginal utility of money
- Homogenous product: $p = \rho - \tau q$
- Total supply= N = number of firms set up at date 0
- $p = \rho - \tau N$

- Each firm has further random fixed cost ϵ *(aggregate shock, normal)*
$$\widetilde{\Pi} = p - \epsilon = \rho - \tau N - \varepsilon$$

- Investor is risk averse (exponential utility). Alternative is riskless asset (zero interest rate). Market value of firm =F.
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$$N = \frac{\rho - F}{\gamma \sigma^2 + \tau}$$

Replica Economy

- To make the economy competitive we replicate the investor and consumer sector.

- In the replica economy there are r investors with the above investor preferences and r consumers with the above consumer preferences.

- It is easy to see that the equilibrium number of firms will be Nr, where N is given by the previous equation.

- In the replica economy we assume that investors hold all firms pro rata (their portfolios are fully diversified).

Pollution Becomes Relevant at Date 1

- Operating with the existing technology (which we now label dirty), each firm produces harm $h > 0$.

- We suppose this harm is spread over the whole population and so the harm an individual consumer or investor experiences from a single firm $\rightarrow 0$ as $r \rightarrow \infty$.

- A firm can avoid polluting by choosing to incur an additional fixed cost δ at date 1.

- Firms that decide to pay this cost are labeled "clean"

First best

- The number of firms N is fixed at date 1 and the question is how many of them become clean

- Date 2 output market unaffected by this choice

- The first best, where planner maximizes investor plus consumer surplus minus pollution harm, is very intuitive

$$h > \delta \quad \Rightarrow \quad n_c^* = N$$

$$h < \delta \quad \Rightarrow \quad n_c^* = 0$$

Divesting

- We analyze what happens when social action is left to individual investors or consumers.

- In an interior equilibrium dirty and clean firms have the same market value.

- By divesting a CSR investor faces a utility loss equal to

$$CE_{nd} - CE_d = \frac{\delta}{2\gamma\sigma^2}(2\Pi - 2F - \delta(1 - 2\mu))$$

where μ is the mass of divestors

- Investor will compare this loss with the positive impact she has on other people's utilities. This is composed of

1. the impact on the environment

2. the impact on other investors and

3. the impact on consumers.

- Investors are optimizing and so, by the envelope theorem, a small change in the market value of firms will have a second order effect.

- Consumers will be unaffected because total supply equals N, independent of the mix of clean and dirty firms.

- Thus, we are left with the effect on the environment.

- The effect on the environment is $\left[N - \dfrac{\delta(1-2\mu)}{\gamma\sigma^2} \right] h$

which the investor weights by her prosocial parameter

- A CSR investor will stay divested if

(*)

$$\frac{\delta}{2\gamma\sigma^2}\left(2\bar{\bar{\Pi}} - 2F - \delta(1-2\mu)\right) \leq \lambda h\left[N - \frac{\delta(1-2\mu)}{\gamma\sigma^2} \right]$$

Results:

1. If
   people not very altruisitic (the majority of investors have $\lambda \leq 1/4$) and pollution

not very inefficient ($h < 2\delta$), then the only equilibrium is one where no CSR investor divests

2. This is true regardless of how many "moral" investors there are

3. More importantly, the private incentives to divest diverge from the social incentives

       - while in general you have too little divesting

       - we can have cases of too much divesting

Boycotting

- Logic similar to divesting

1. Same results: If people not very altruisitic $\left(\text{e.g.}, \lambda \sim \frac{1}{4}\right) and$ pollution not very inefficient ($h < 2\delta$), then the only equilibrium is one where no SR investor divests

2. This is true regardless of how many Kantian consumers there are

3. More importantly, the private incentives to divest diverge from the social incentives

Engagement

- While divesting and boycotting are fairly "institution free", engaging is not

- We focus on how investors will vote if they can.

- Assume there are vNr clean firms.

- Suppose there is a vote on whether a dirty firm should become clean.

- Vote as if you are pivotal.

- A CSR investor will consider:

1. Effect on herself

2. The impact on the wealth of other investors

3. The effect on consumers

4. The impact on the environment

- First effect is negligible if investor is well-diversified.
- Second effect is $-\delta$.
- Third effect is zero, since the supply of output remains at N
- Fourth effect is h

- Weighting them by λ yields the conclusion that bringing about an extra clean firm will be desirable for the investor if

$$\lambda(h - \delta) > 0$$

- In other words, if $h > \delta$, all CSR investors will vote clean
- While, if $h < \delta$, all CSR investors will vote dirty
- In voting investors have the same incentives as the benevolent planner.
- This is true, <u>regardless of the degree of social responsibility</u>
- So it makes sense to encourage voting.
- Dispersed ownership good here. Would not be true with large owners.

Limitations

- We have taken social preferences as given.
- As a result we miss an important benefit of exit campaigns.
  - The fur-free campaign by the Humane Society
- In this respect, exit can sometimes be more powerful than voice.
- Voice is also infeasible if somebody owns a majority of the votes (Facebook) or the company is private (Koch Industries).
- Voice can also easily be restricted.
- In the U.S., shareholder proposals are not binding and management can prevent a proposal from appearing on the ballot by invoking the "ordinary business operations exception."

Conclusions

- Divestment and boycotting can have a positive effect in pushing firms to be socially responsible, but
  - Individual and social incentives are not aligned.
  - The effect is often zero
  - This is with visibility and commitment. Without, weaker.
- In engagement
  - the incentives are aligned with those of a benevolent planner
- Message of paper: Engagement should be made easier not more difficult.