Discussion "Signaling through Carbon Disclosure" by Bolton and Kacperczyk

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Timely Paper

- Trend toward more corporate carbon disclosures in recent years
  - Activist pressure and regulatory (e.g. NGFS) pressure toward net-zero mandates
  - SEC/EU regulations on the marketing of sustainable finance
- How has stock market interpreted signals sent from voluntary disclosures and the information embedded in them?
- Provide an answer using a sample from 2005-2018 of TruCost estimates of Scope 1
  - Indicator from whether the estimate came from company disclosure or from other public sources (EPA, etc…)
  - Correlate to stock returns

Main Findings

- Marginal effect of disclosure being associated with higher returns
  - Only 1 star
  - Interpret as reduction in cost of capital due to less uncertainty or certification
- Bigger effect of disclosure and Scope1chg (i.e. year to year increase in emissions)
  - Interpret as market penalizing firms who disclose and had higher emissions
  - 3 stars
- Also some results on UK mandatory disclosures in 2013 reducing uncertainty

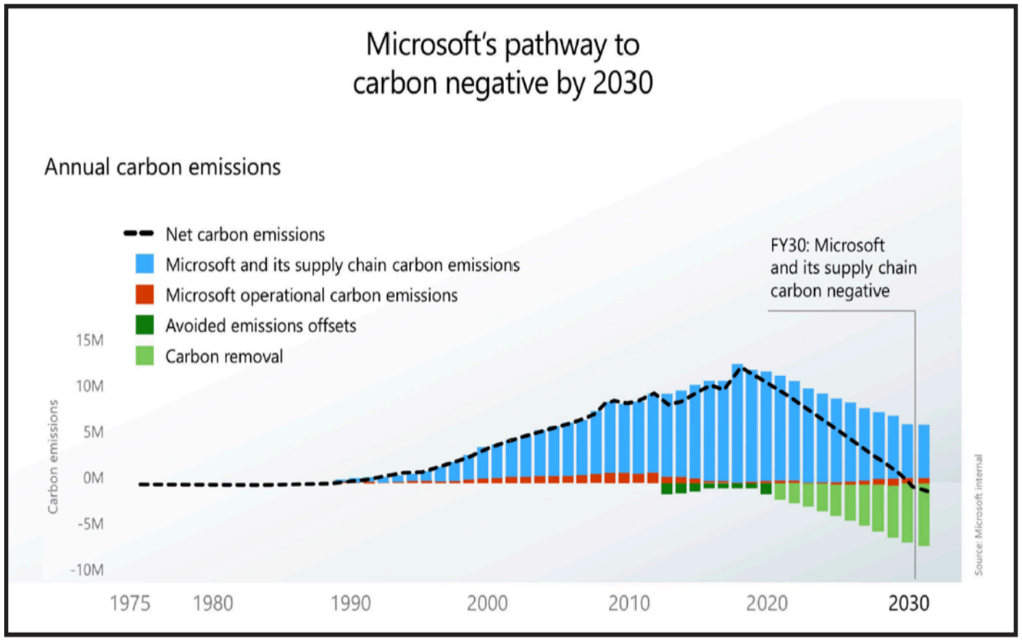
What is insiders' information about carbon emissions that outsiders don't have?

- Scope 1 proxies already collected by environmental regulators (EPA) and publicly available
  - Trucost and others use to build out Scope 1
  - If firm doesn't have to report, then no issue anyway since reporting criteria typically based on size of emissions
  - The same is true for changes in these proxies
- Unclear there is any information in these disclosures to the public (absent perhaps some major energy producers)
  - Variations most likely reflect costs of disclosing (some of which is picked up proxies like size and profitability)
  - And perhaps these cost of disclosing/and changes in scope are correlated with something else

But management likely knows more about cost of clean-up

- Ideally, show correlation of year-to-year changes in carbon emissions with ex-ante plans for clean-up
    - Both Microsoft and Exxon have announced clean-up plans involving decarbonization
    - Maybe increasing scope emissions means no plan for clean-up or just idiosyncratic/transitory shock associated with more production?

Getting data on these detailed plans would be ideal to understand the content of disclosures



More generally, corporate decarbonization plans important part of transition to net-zero economy

- Hong, Wang and Yang (2021) on welfare consequences of portfolio mandates to only invest in net-zero firms to incentivize reforms
  - Sustainable finance mandates to reach net-zero based on plans to get there in 2030 or 2050 via contributions to decarbonization (carbon capture, etc…)
  - Mandates can approximate planner’s solution
  - A limiting case where mandates apply to everyone is a capital tax
  - Disclosure linchpin to executing mandates
  - Otherwise government might need to decarbonize using tax revenues

Conclusion

- Timely paper with new results on the interpretation of carbon disclosures by stock market
- Disclosures key to many aspects of transition to net-zero economy