How can the financial sector be a productive force in climate change mitigation?

The role of public policy makers and private sector innovation

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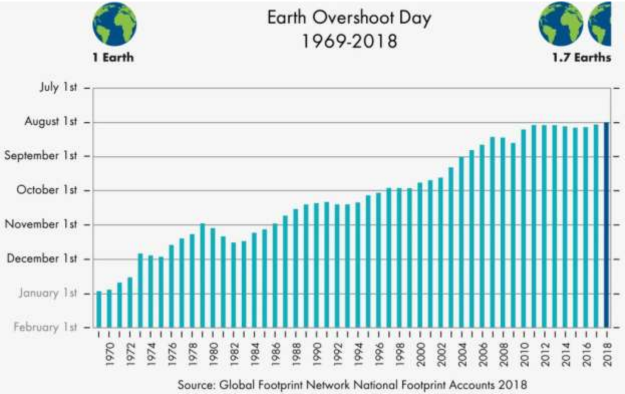
A structural issue requires a structural solution



The financial sector and climate change mitigation

- *"Greenhouse gas (GHG) emissions are externalities and represent the biggest market failure the world has seen"*
  - Stern, AER 2008.
- How does the financial sector work? Separate between structural and marginal issues.
- How can we alter the decision making process in current and future corporations?
  - Finance is not about amounts of capital needed it is about how to allocate the capital.

Finance is about valuation and allocation of capital

- Make clean (dirty) technology development and use more (less) valuable and thus channel more (less) capital toward these projects.

- Asset valuation and decision making in corporations are carried out using this formula:

$$NPV = CF_0 + \frac{CF_1}{(1+r_1)} + \frac{CF_2}{(1+r_2)^2} + .. + \frac{CF_N}{(1+r_N)^N} = \sum_{n=0}^{N} \frac{CF_n}{(1+r_n)^n}$$

- Taxes and subsidies affect cash flows (outside financial sector).

- Risk etc. affect cost of capital (financial sector).

Private sector initiatives

- “Sustainable finance” solutions:
  - Corporate social responsibility (CSR).
  - Environment, Social and Governance (ESG).
  - Green bonds.
    - Represent 0.2% of the bond market.
- Are these solutions targeting the structural issue?

How can we affect cash flow generation

- We should be taxing dirty production and subsidizing clean.
- Fossil fuel:
  - Subsidies of between \$300 billion to \$5 trillion per year globally depending on measurement.
  - Carbon tax revenues a little under \$30 billion per year.
- Renewable energy:
  - Global annual investment around \$300 billion.
  - $>$90% from private sources.
    - 93% of private capital stays within the country of origin.

... and

- Thank you for your attention!