Assessing green growth policies: macro-economic models and empirical studies

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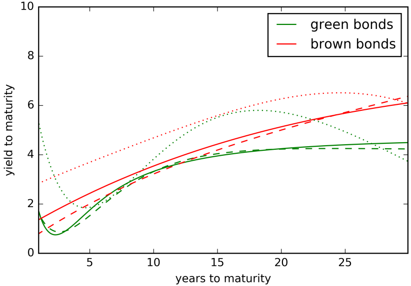
Questions

- What are the insights on green growth from the empirical analyses of green financial instruments and State Investment Bank project portfolios?
- In particular, what can we learn about micro-economic behavior that is relevant for green growth policy
- Focus on investment decisons.
- “The changing value of the “green” label on the US municipal bond market" (Karpf and Mandel, 2017).

Comparative analysis of green and conventional bonds

- Sample of 2×10^6 transactions on 2000 green and 30000 conventional bonds on the U.S municipal bond market (muni is \$3 trillions out of \$100 trillions global bond market).
- Conventional assumption would be that all other things being equal, additional demand for green, thus lowering yields.



Comparative analysis of green and conventional bonds

- Econometric analysis of the difference in yields explained by fundamentals (the explained part) and the green premium (the unexplained part).

	2010	2011	2012	2013	2014	2015	2016
Reference Group							
Difference	-1.3156	-1.0871	-0.8316	-0.7329	-0.1892	0.2706	0.3974
Explained	-0.2881	-0.355	-0.3026	-0.0036	0.1482	0.0902	0.0221
Unexplained	-1.0275	-0.7321	-0.529	-0.7293	-0.3374	0.1804	0.3753

- Historically, the premium on green bonds has been negative.
- In recent years, the premium turned positive.
- Strong correlation between the premium and the average quality of the bonds.
- Reputation ! Social influence probably as important as analysis of fundamentals .
- Key to establish the reputation of the financial quality of green bonds in all segments of the market.

Behavioral Experiments on “Impact Investments”

- Boulu-Reshef et al. 2018 investigate altruistic, fiscal and reputational motives to impact investing.
- Trust-to-investment game (repeated):
  1. Investor may transfer money to entrepreneur
  2. Entrepreneur invest into conventional or impact investment opportunity
  3. Entrepreneur decides whether or not to transfer some of the funds back
- Hypothesis: more investment in impact because impact entrepreneurs assumed more trustworthy.
- Preliminary results: investors do not transfer more money to impact although impact entrepreneurs send back a higher share of the gains
- No premium for green/impact !

Conclusion

- Green bonds are seen as one the key instrument to nock climate finance, or more generally green growth.
- The “green dividend" is not automatically factored in the price or in the behavior.
- Green growth policy required also to coordinate expectations on the returns of green investment.
- Such coordination of expectations might also play the role of equilibrium selection device.