Corporate taxation and carbon emissions by Luigi Iovino, Thorsten Martin, Julien Sauvagnat

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Summary

- Fact: firms with high emission intensity pay lower corporate taxes
  - (tax shield from debt)/sales well predicted by emissions/sales in cross section of firms
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  - related fact: bond market shares $\approx$ emission shares $\neq$ value added shares (Papoutsi et al. 2022)
- Quantitative GE model with heterogeneous firms
  - technology: multiple capital goods, rich input-output structure, differences in emission intensity
  - financial frictions: collateral constraint, default shocks
  - steady state w/o tax shield: 5% lower emissions
- Good idea, very nice paper!

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2. Minimize cost of production
   - standard cost minimization given factor prices, incl. cost of capital

   $\rightarrow$ buy more of cheaper capital goods, such as good collateral

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- Wish list for future models
  - asset price data: average return on diversified equity portfolio $>$ safe rate
  - premia for aggregate risk: policy that affects risk taking (e.g subsidy to safe asset) could matter

Modeling the firm: welfare properties

- Debt not directly useful to society in model economy
  - representative household equally likes equity – debt used because government subsidizes it
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  - also, household should benefit from eating excessive capital along transition path?
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  - why worry about budget neutrality when we're removing a subsidy?
- Wish list: debt more than government-induced distortion (historically, it precedes tax shield)
  - investors: convenience yield of debt (backs inside money, self-insurance in incomplete markets etc)
  - firms: debt disciplines managers with free cash flow