Efficiency and Equity in the green transition

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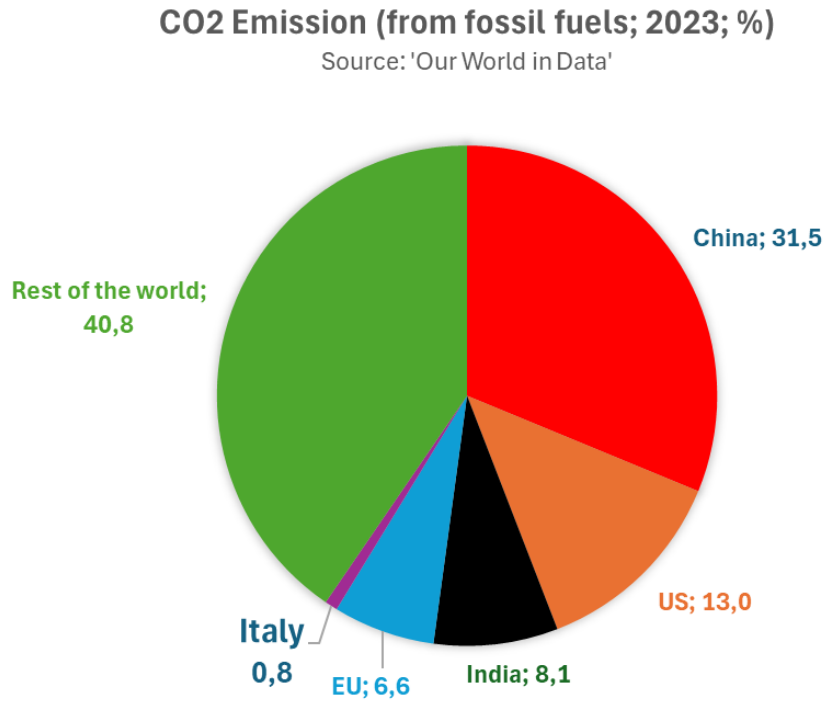
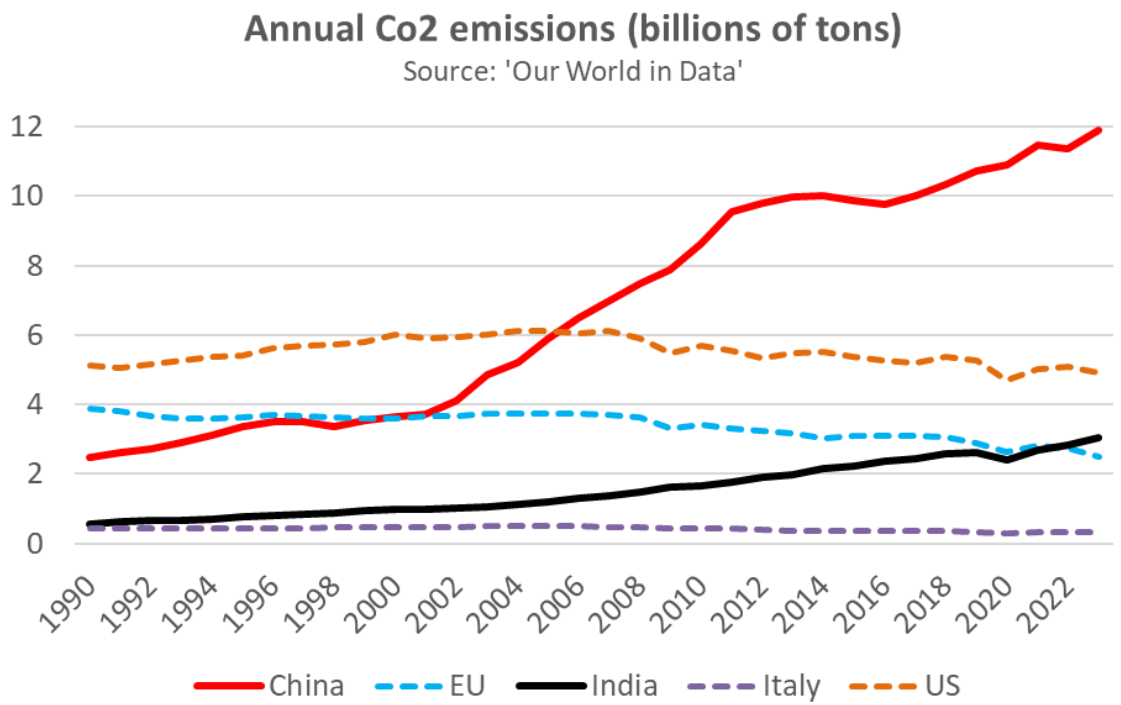
The paper in a nutshell

- It contributes to the **green transition literature** showing that climate policies have also **distributional effects**:
  - It uses a **large (IAM) model** with an **OLG block**, a **sectoral** Computable General Equilibrium model (CGE) and a **climate** module (FUND).
  - The economy: **Italy + Rest of the world** (which **coordinate** their **climate policies**, e.g., carbon taxes or green subsidies)
  - **Several scenarios** are simulated → (i) HHW: status quo (ii) **NZ: emissions reach 0 in 2050**; (iii) delayed NZ
  - **Some results**→ (i) timely actions are important (ii) but possible lack of political support given the heterogeneous effects across cohorts
- The paper is ambitious
  - Maybe, more work on the focus and on the modeling choices

Doubts on the “Italy vs Rest of the world” structure





- To address the global temperature issue → Focus primarily on the main CO2 emitters

- …if you want to focus on Italy…why not taking global temperature as exogenous?
  - In the current version of the model, the benefit of doing climate policies seems to be overestimated for Italy

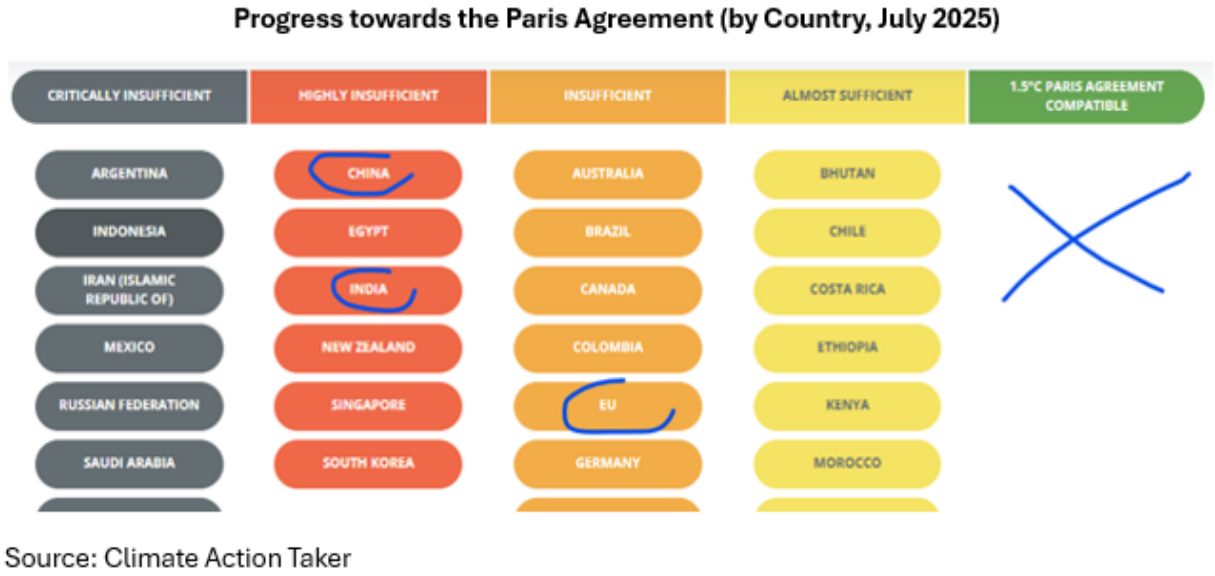
On some hypotheses of your Model/Exercise

1) Globally **coordinated** and **simultaneous** climate policies?

- **Different approaches:**

(i) EU more regulatory (e.g., carbon caps); (ii) US more through tax incentives; (iii) China more central planning (massive public investment)

- **Different speed:**



Source: Climate Action Taker

2) Competitiveness and the **dimension of trade**? (e.g., Känzig, 2023; Brunel & Levinson, 2025)

3) What about a highly non-linear evolution of the global temperature?

- Tail risks or Tipping points (e.g., Weizman, 2009; Titton, 2024)

What I expected to see, based on the premises

- some metrics for **“efficiency”** and **“equity”** (cost-effectiveness indicators, gini index, decomposition of inequality between cohorts, vulnerability indicators…)

- a sharper contribution in terms of the **political support** (see, e.g., Levi et al. 2020, *Political Economy Determinants of Carbon Pricing*)

- the interaction of climate policies with **the dynamics of public debt**

- …