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DISCUSSION: SESSION 4 - CLIMATE-RELATED ISSUES

Javier J. Pérez
Director, International Economics and Euro Area Department
Banco de España

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DISCUSSION: SESSION 4 - CLIMATE-RELATED ISSUES

- **The macroeconomic impact of the energy and climate provisions of the US inflation reduction act: evidence for the EU**

  Salvador Barrios, Jonathan Pycroft, Andrzej Leszek Stasio, Daniel Stoehlker (EC JRC)

- **Are people willing to pay to prevent natural disasters?**

  Luigi Guiso (EIEF), Tullio Jappelli (U. Naples Federico II)

- **The distributional effects of carbon taxation in Italy**

  Francesco Caprioli, Giacomo Caracciolo (Banca d'Italia)

Key take aways

IRA's potential relocation effects of investment and production activities away from the EU…

- **… depend on EU's policies**

A plus is the detailed modelling of corporate taxation (local, multinationals)

The paper highlights the benefits of EU "green funds" to promote EU green sectors and to shield them form IRA's negative spillovers

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Some questions

Q1 – Tax subsidies vs. Grants-loans

- How relevant are differences in design? What if EU policies would have been designed as IRA's? What assumptions about implemen./ absorption are consistent with counterbalancing IRA?

Q2 – Scenarios vs. data

- IRA and EU funds in place since 2022/23: would it be possible to validate the results with policy evaluation based on data, if only for case studies?

Q3 – Having a sense of alternative estimates

- How much of the differences with other papers due to the absence of the multi-sectoral channel?

Key take aways

Survey-based evidence on **willingness-to-pay** to a fund to finance investments to secure areas exposed to hydrogeological risks…

- Reasonably high (some 50%)
- Increases with info on “social impact”
- Decreases under “free riding”

The paper highlights the relevance of **information to increase awareness** on costs of climate-related-risks, in order to raise **additional resources** for prevention

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Q1 – Climate-related vs. "general" natural disasters

- **May be WTP for natural disasters "in general"**
- **But in the paper the interest is on climate-change-related ones, to draw policy lessons**
- **Is this really identified in the paper?**
- **Awareness through experience:**
  - people are more aware when exposed to an event (literature on pandemics– in the paper footnote 6)
  - **In Italy, exposure to "non-climate-disasters" like earthquaques**
  - **Use this idea - regional-local controls or new wave**

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Some questions

Q2 – Donation or taxation

- **Words "taxes" and "government" not mentioned**
  - Contributions as "donations" or "charity"?
    - ***Could this explain the reduced size of contibutions?***
  - If interpreted as taxation, literature on "trust on govnts"
    - **Could this explain the important # of no/undecided?**
- **In reality, spending needs on climate-related huge**
  - Would it make sense to ask something like: **"would you be willing to pay 1000 euros per year", to check if it is "charity" or genuine willingness to be taxed?**

Key take aways

Quatitative tool to evaluate introduction of a **carbon tax** in Italy

- Rich sectoral, GE OLG model
- Heterogeneous agents: intra-, inter-gen
- Compensatory measures with receipts

The paper puts numbers to the **trade-off** of **benefit of lower energy consump.** via (carbon) taxation **vs. costs that hinge more on certain households /sectors**. **This depends on menu of policies to partly mitigate** the short-run –transition- and permanent distibutional impacts

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Some questions

Q1 – The model only considers one type of energy

- This rules out that following the introduction of the **tax, housholds & firms substit. carbon-intensive energy goods** for other low-carb alternatives
- **This assumption is not harmless:**
  - **First: substitution is the main strategy of agents to mitigate the effects of carbon taxes**
  - **Second: the elasticity of substitution among green (low carbon) and brown energy goods might change along the income distribution.** Differences in ability to invest in electric equipement and solar panels
- **Something in Appendix A, but more work needed**

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Q2 – Energy elasticity of substitution

- **Change over time: nowdays larger** (Papageorgiou et al., 2017) –calibration based on 1995-2008 data
- **Short- or long-term elasticity?** Short-term ones tend to be much lower as agents can only adjust equipment in the long-run (Labandeira et al., 2006)

Q3 – Carbon tax (import tariff) vs. EU ETS

- **ETS affect inflation, while carbon taxes do not** (Känzig and Konradt, 2024; Moessner, 2023); **ETS induce larger inflation volatility** (Santabárbara and Suárez-Varela, 2022); Different distibutional impacts? (Parry et al., 2022)