

Distributional implications of climate policies and impacts

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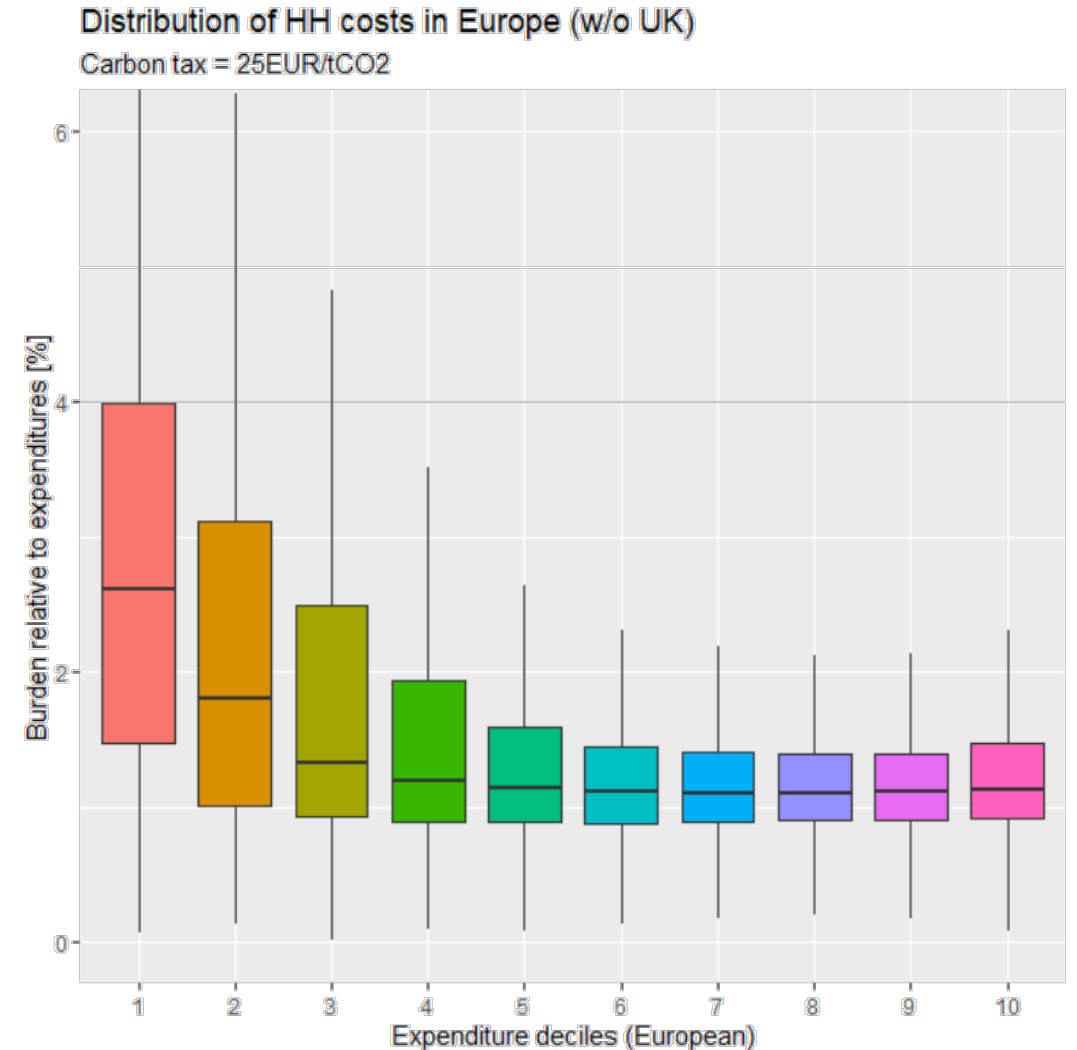


Overview

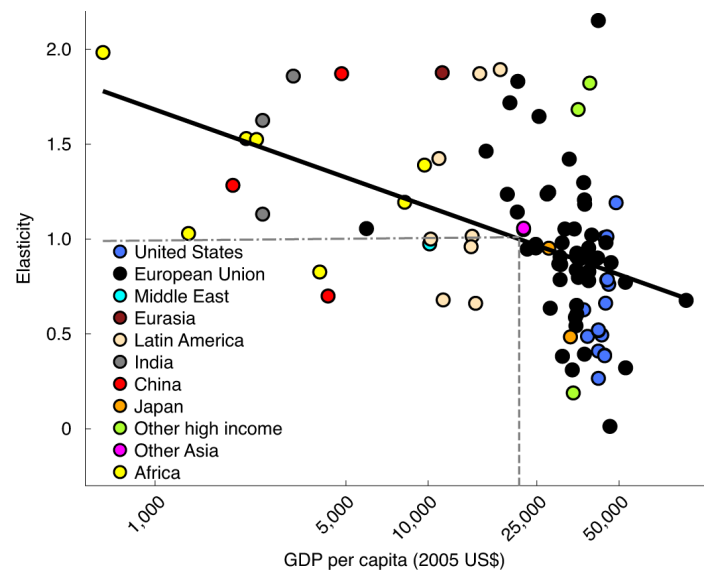
- Distributional implications of climate policies
- Heterogeneity and Inequality, and the impact of climate change
- The potential role for carbon revenue redistribution
- Integrating climate impacts
- Combined assessment, and linking it to the acceptability of climate policies



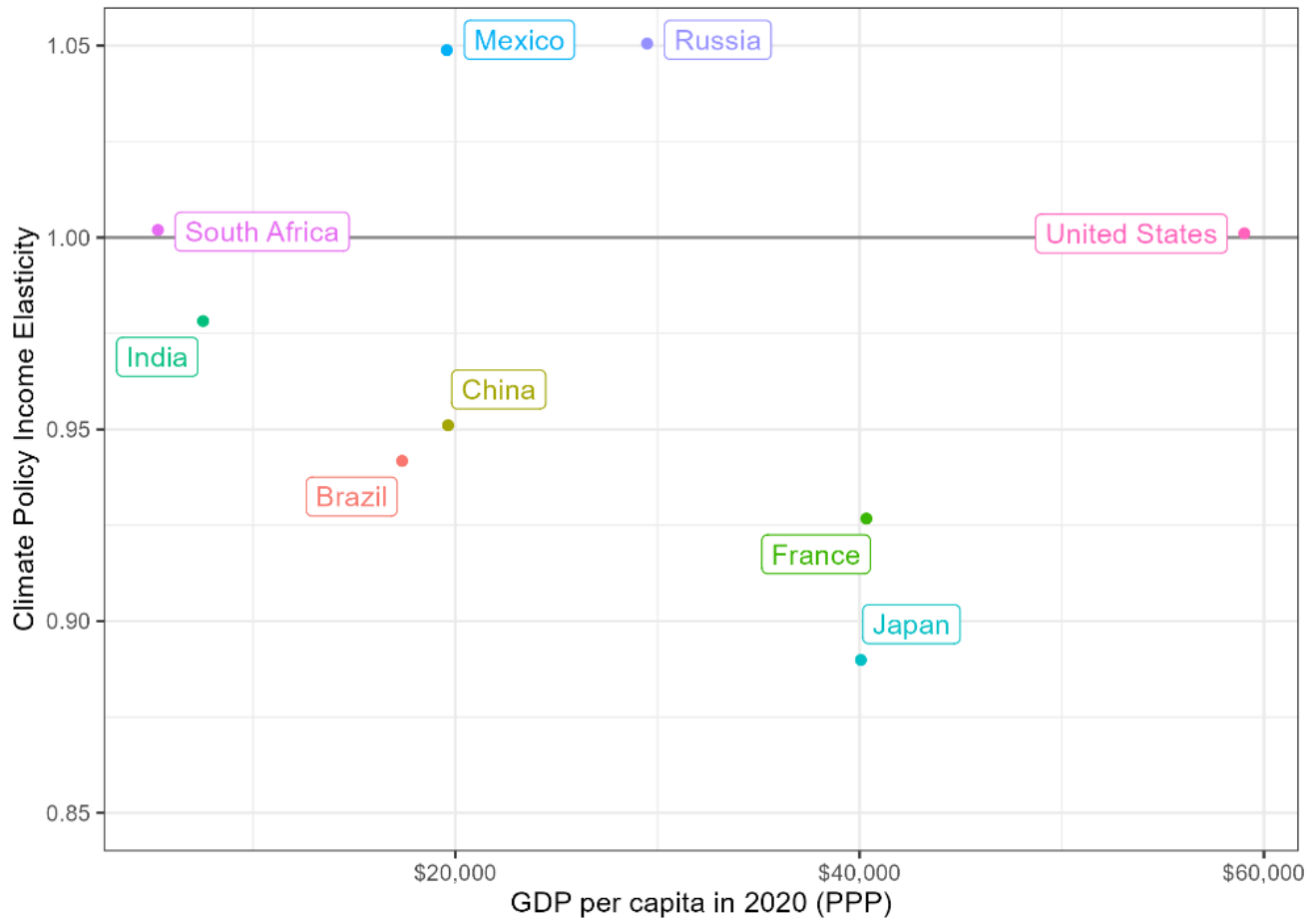
- Distributional incidence of a carbon tax, here of 25 EUR / tCO₂ in Europe
- Regressive, esp. for lower deciles
- Includes direct and indirect emissions



- (Mildly) regressive
- esp. in richer countries
- overall with an elasticity of 0.95



Source: meta study of Budolfson et al. (2021)

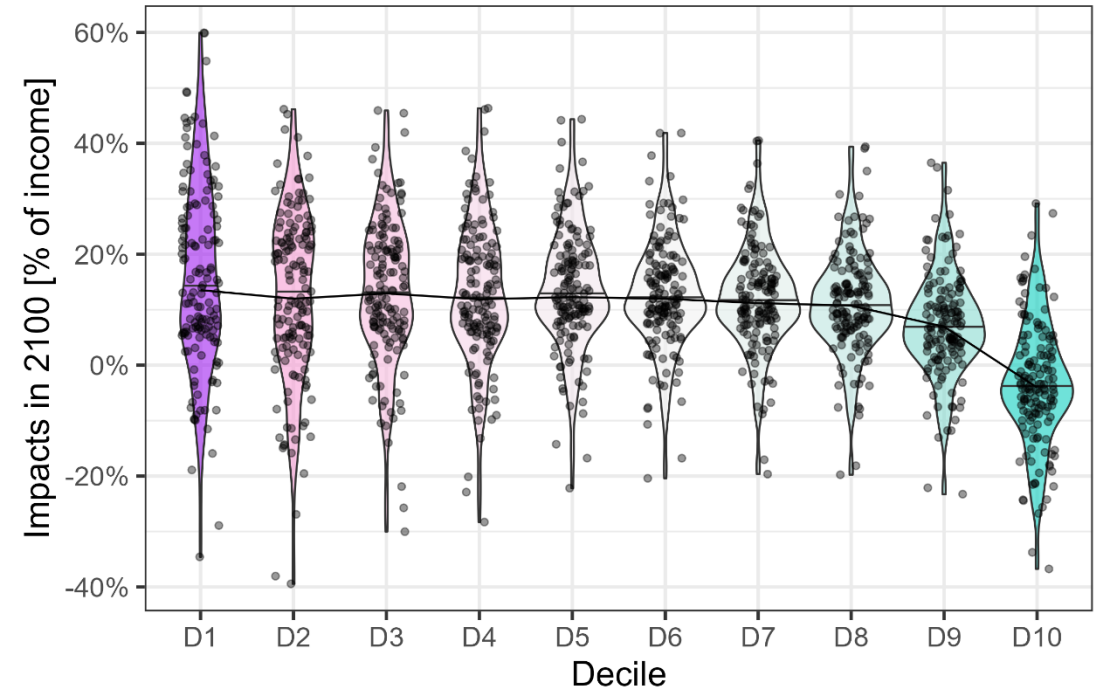


Source: Emmerling et al. (2023)

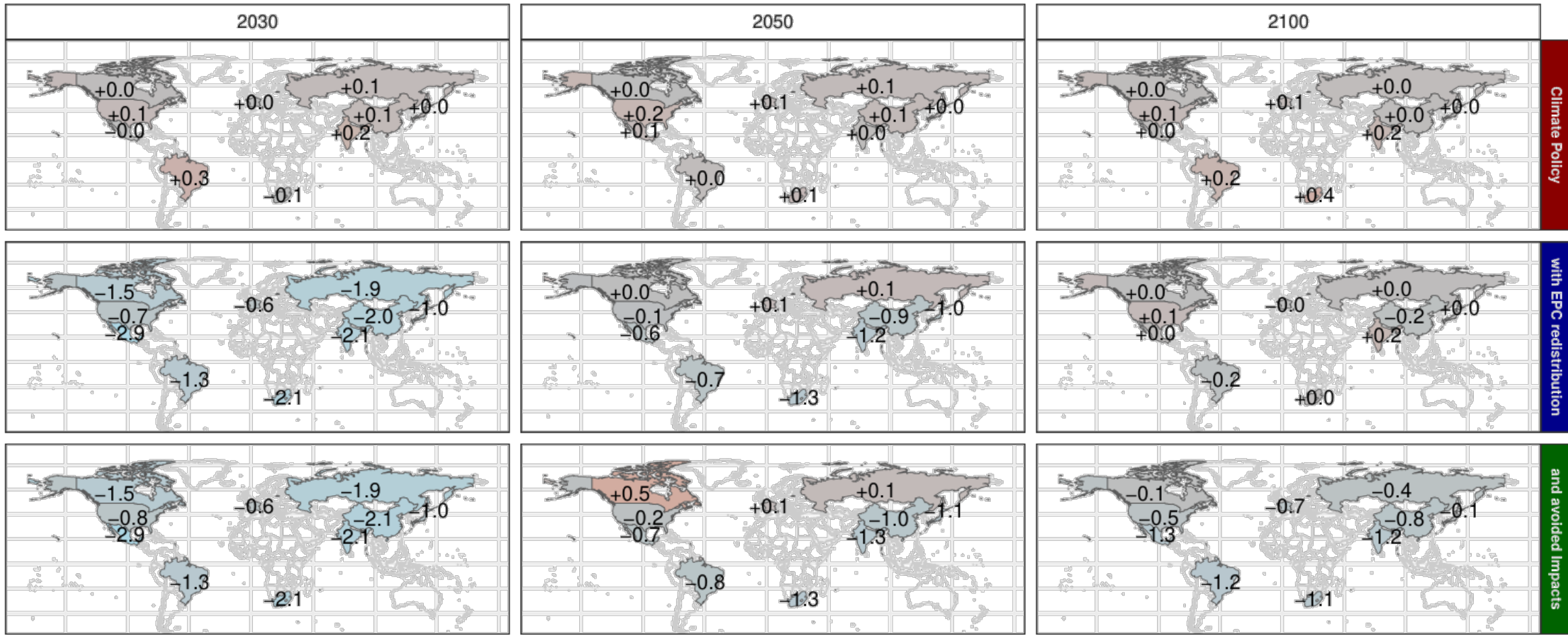


- Across 160 countries, estimated impact per deciles
 - ➔ Mostly regressive *within countries*
- Increase in the Gini index by about 3 points (median) by 2100 (SSP3-7.0)
- Overall climate impact income elasticity: $\epsilon_{d,y} = 0.72$
- One fourth of global inequality is within countries.

Distribution of impacts in 2100 - SSP3 - 7.0
With BHM-adaptation



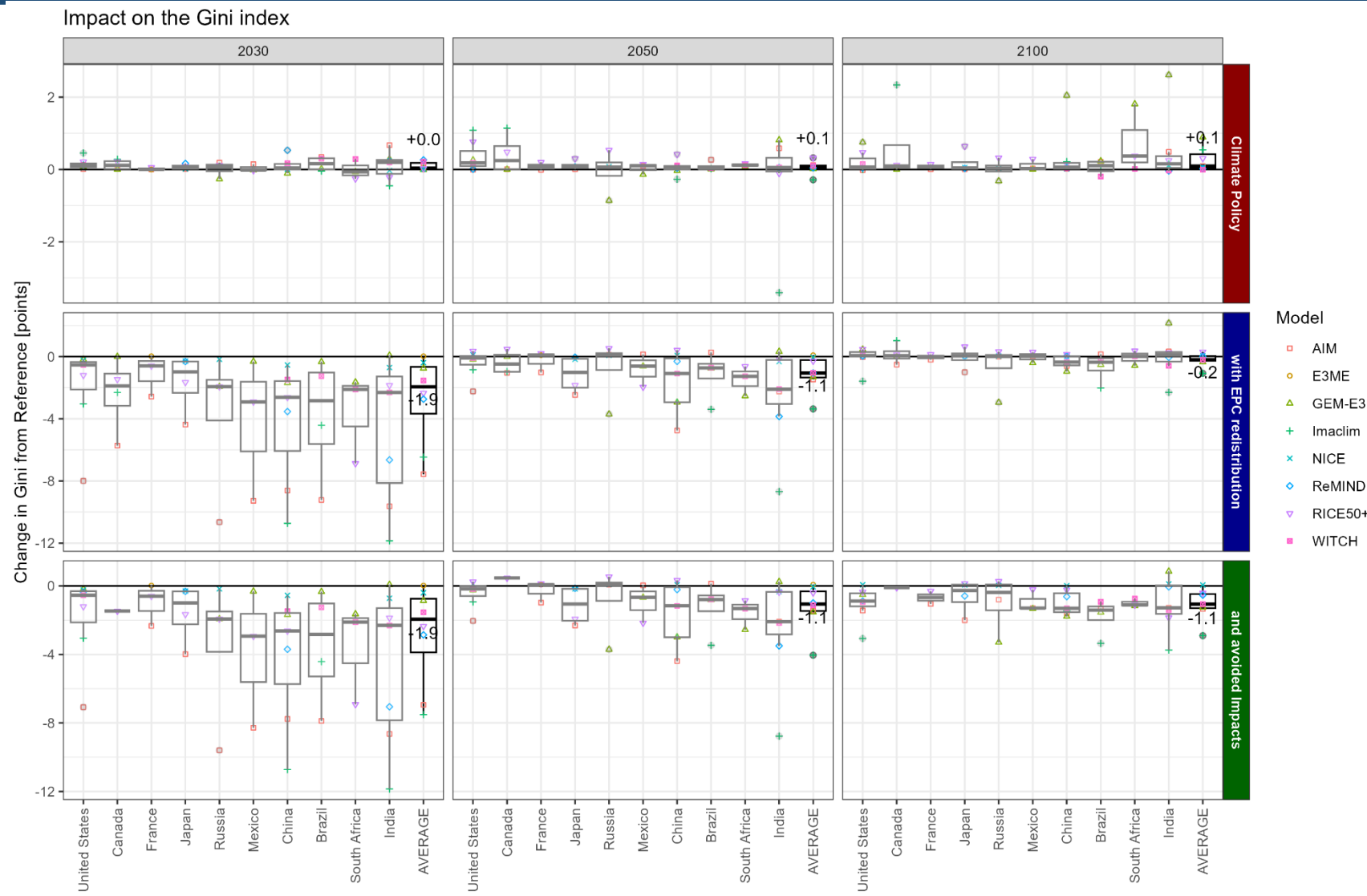
Impact on the Gini index [Model median]



Mitigation Costs

EPC Redistribution

and with impacts

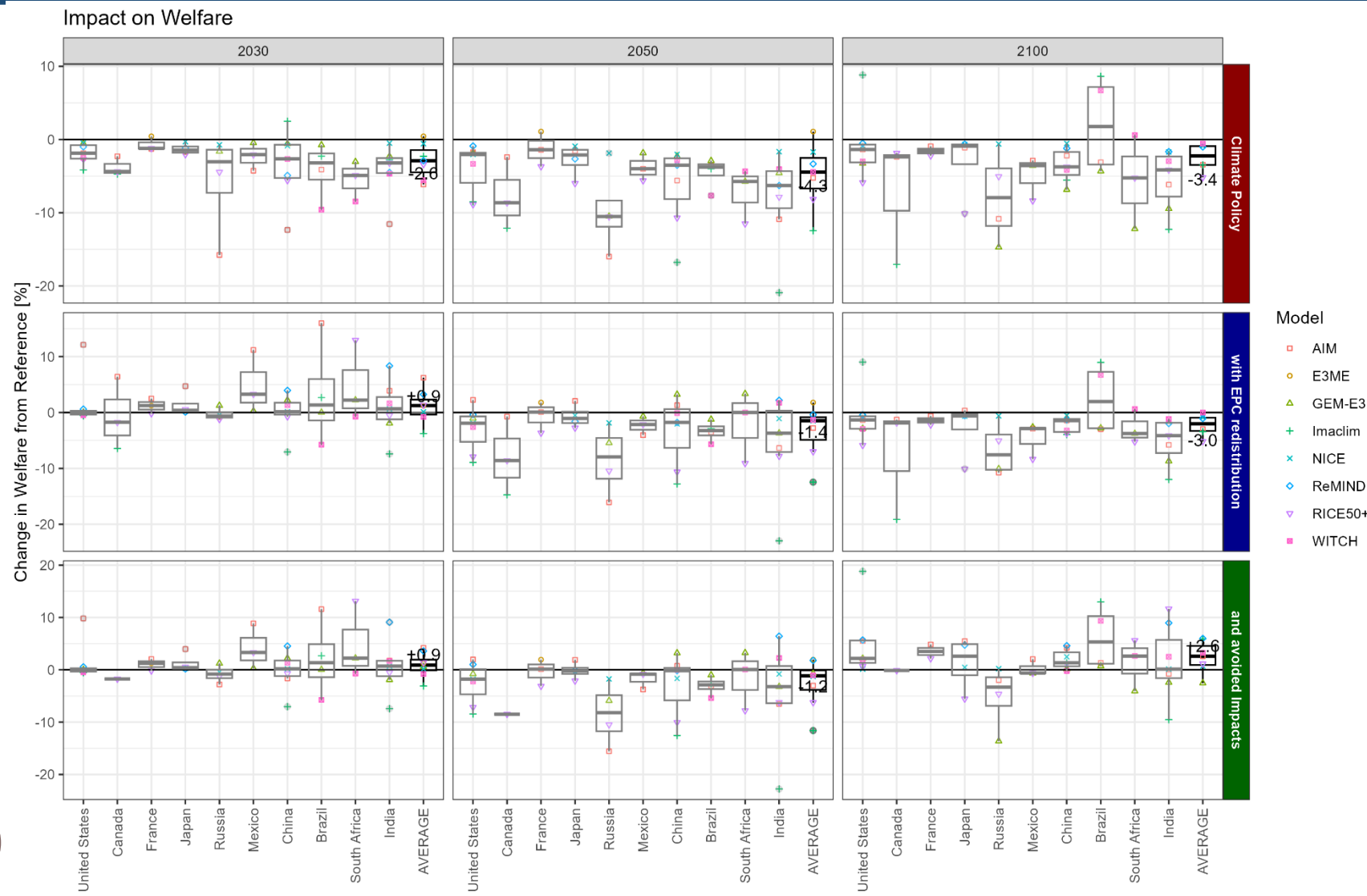


Mitigation Costs

EPC Redistribution

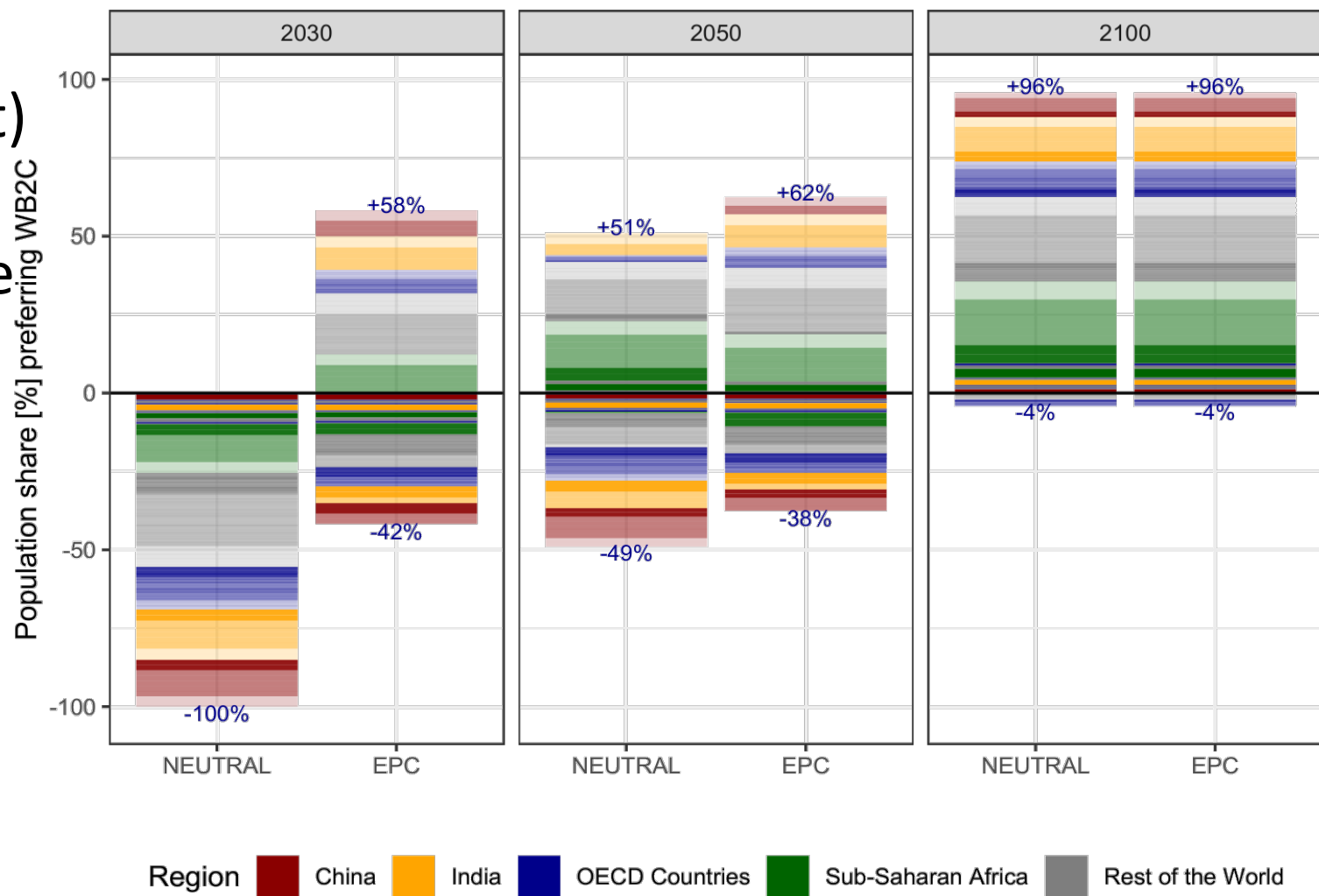
and with impacts

$$W_{it} = GDP_{pc_{it}}(1 - Gini_{it})$$



NAVIGATE Distributional implications and acceptance

- Global assessment (almost) at the country level
- Which sub-populations are better off under WB2C or Current policies
- Short term: EPC transfers crucial
- Long term, revenues dissipate, impacts dominate



Conclusions

- Climate policies will be most likely regressive including in Europe
- Redistribution is key, a “climate dividend” can easily achieve progressivity of the policy
- Taking into account potentially regressive climate impacts makes climate ambition inequality-reducing
- but more so in the long run...
- While for policy acceptance redistribution is key in the short term (from virtually everyone opposing to a two-third majority)



Thank you!

Questions?

