Green Spending vs. Lump Sum Redistribution

Experimental Evidence of Support for Carbon Pricing Mechanisms

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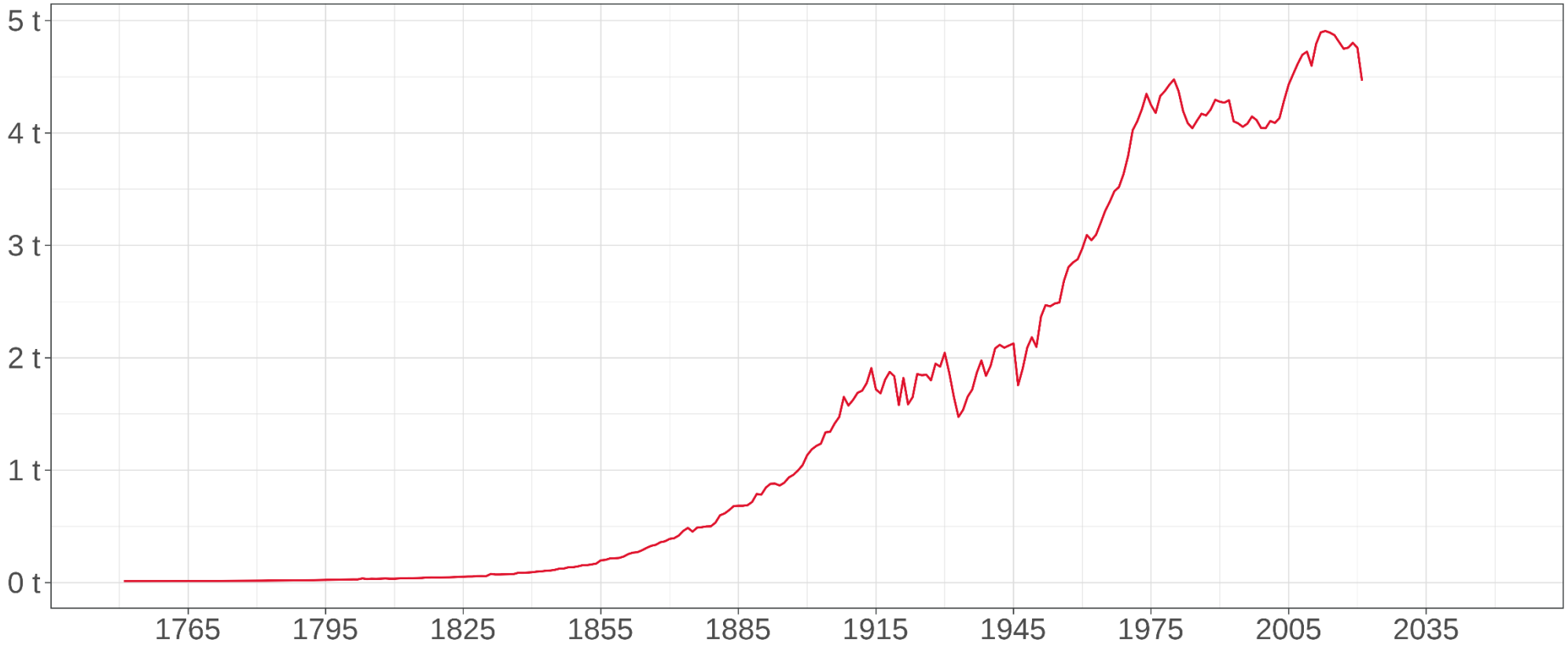
World per Capita CO_2 Emissions

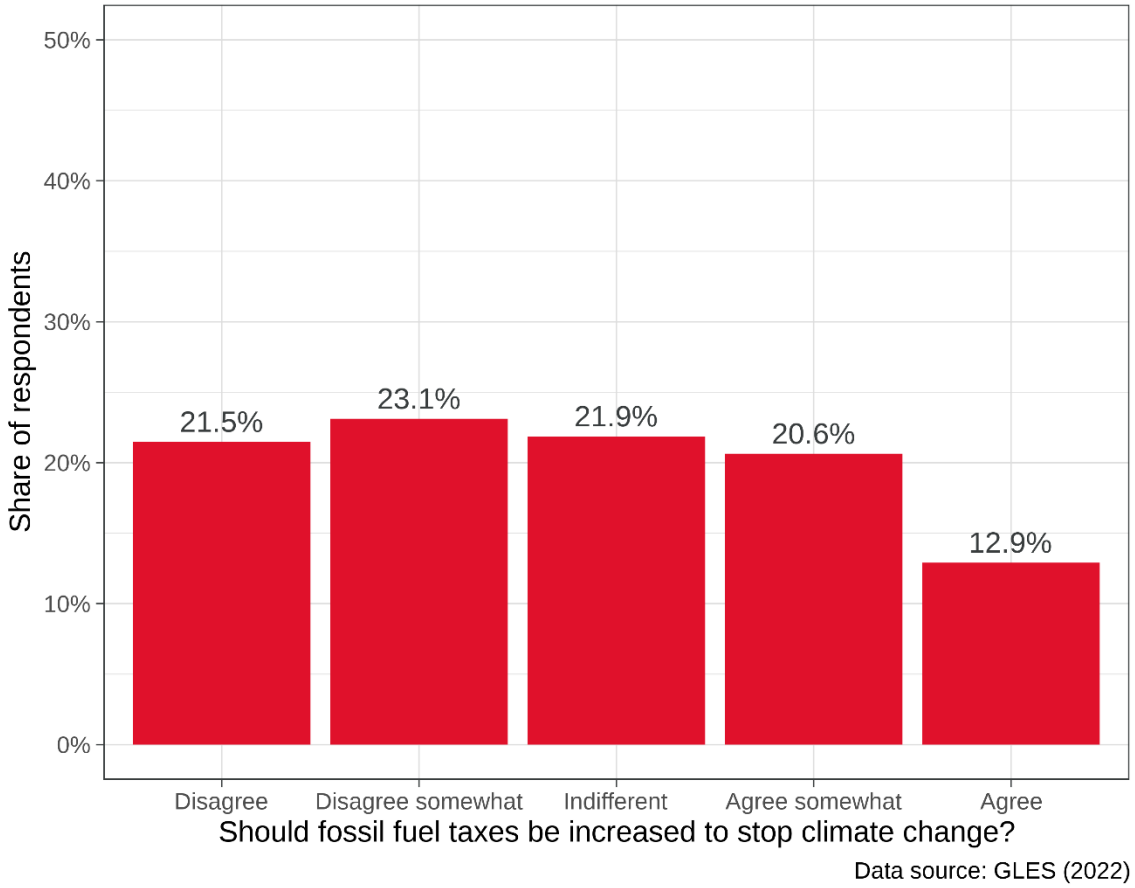


Data source: ourworldindata.org/co2

Carbon Pricing as a Solution?

- Carbon pricing (CP): Alter prices of emitting goods/services to reflect true costs on society (Pigou 1920)
  - More efficient than sector based industrial policy (Baranzini et al. 2017)
  - Effective in reducing emissions (Abrell, Kosch, and Rausch 2022; Leroutier 2022)

Resistance to Carbon Pricing



- Carattini et al. (2018):
  - Personal costs of CP too high
  - CP regressive
  - CP harms economy
  - CP ineffective in reducing emissions

Research Question

What is the effect of green spending/lump sum redistribution on support for CP ?

Addressing CP Scepticism

- Most determinants of support for CP are off-limits for policy makers (cf. Levi 2021; Wortmann Callejón 2022)
- CP schemes can be designed to minimise citizens' concerns about CP through implementation of revenue recycling schemes (RRS) (Carattini et al. 2018)
  - Green spending
  - Lump-sum redistribution

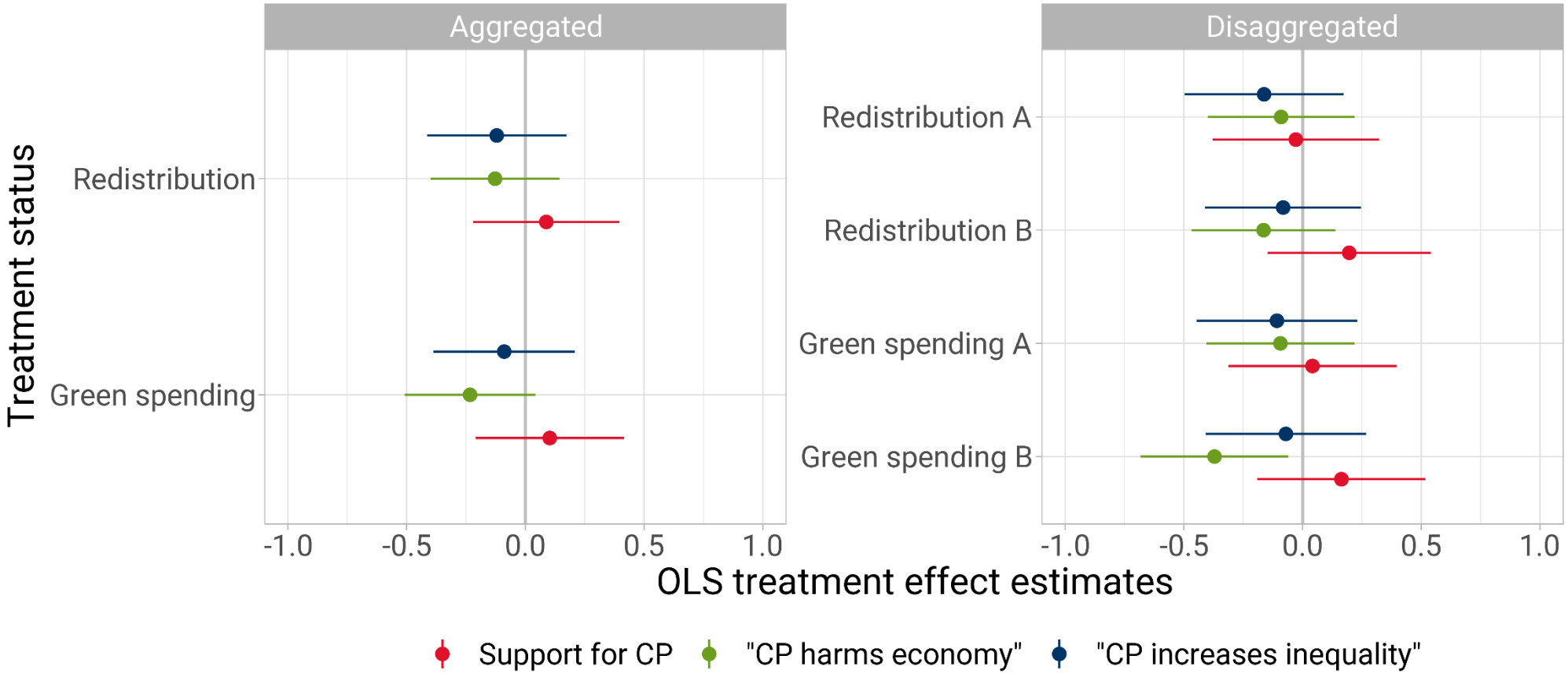
Methods I

- Data from online survey conducted between July 8th and 21st 2022
- RCT used to estimate the ATE (Angrist and Pischke 2009)
- DV: "To fight climate change, levies on CO_2 emissions should be raised."
- Survey participants were asked whether CP harmed economy or increased inequality **post-treatment**
- Covariate balance across treatment groups

Methods II

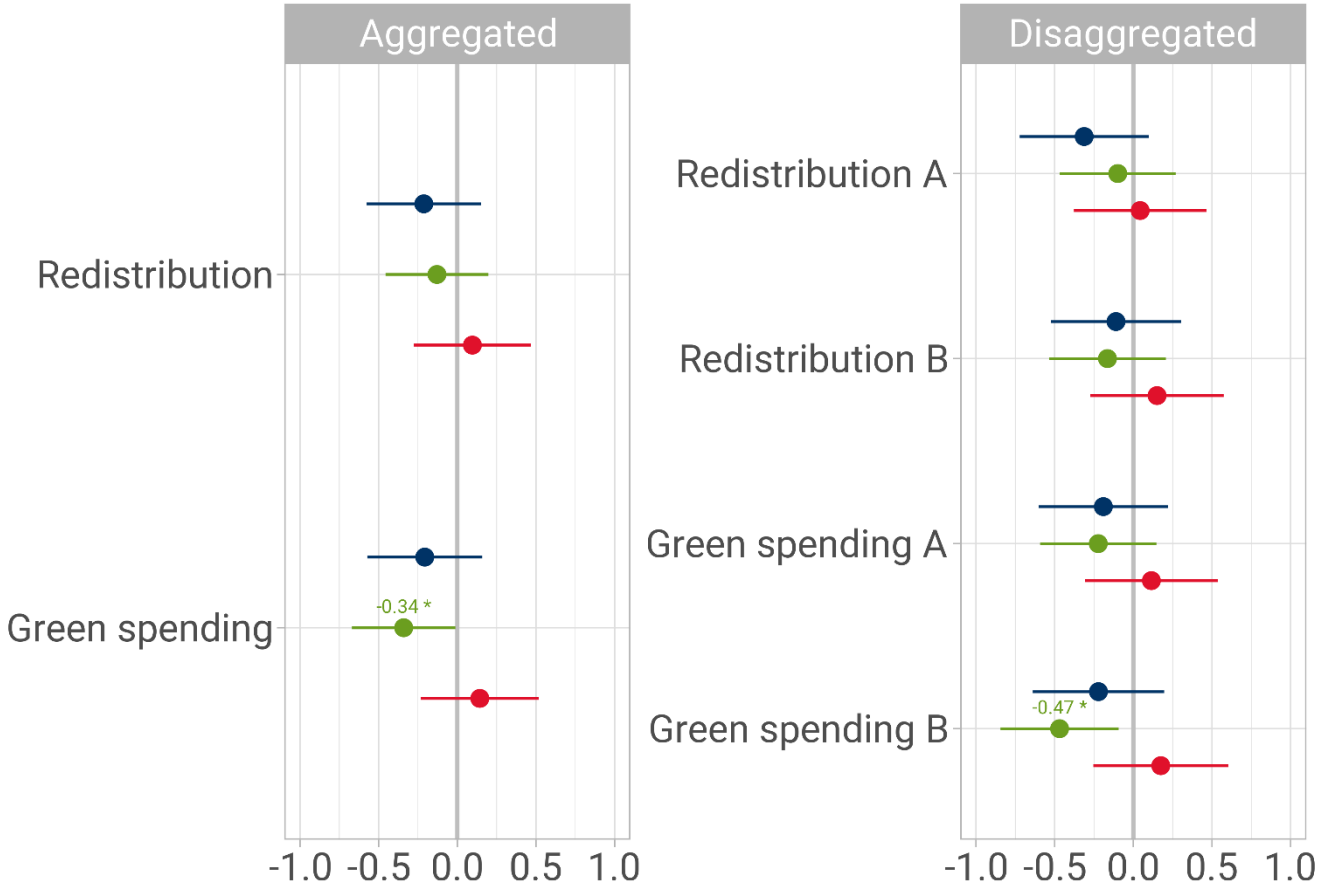
Concept	Group	Treatment
Redistribution	A	Furthermore, the proceeds of a CO_2 price could be distributed back to all citizens as a lump sum and thus **reward those who behave in a particularly climate-friendly way.**
	B	Furthermore, the proceeds of a CO_2 price could be distributed back to all citizens as a lump sum and thus **relieve small incomes.**
Green spending	A	Furthermore, the proceeds of a CO_2 price could be used to **keep the economy competitive**, e.g. by investing in climate-neutral steel production.
	B	Furthermore, the revenues from a CO_2 price could be used **to finance additional climate protection**, e.g. through investments in climate-neutral steel production.

Treatment Effect Estimates



Subgroup Analysis

- Age: -
- Education: -
- Gender:



Discussion

- Treatments did not work on most of the participants
- Explanations:
  - Hypothetical policy
  - Complexity of CP
  - Topic of survey
  - Sample

Conclusion

- Theoretical argument that RRSs alleviate concerns about CP remains compelling

- Practicability of RRSs as tool to increase support for CP doubtful

Research Supported by

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Slide download

https://tinyurl.com/slides-green-vs-redist

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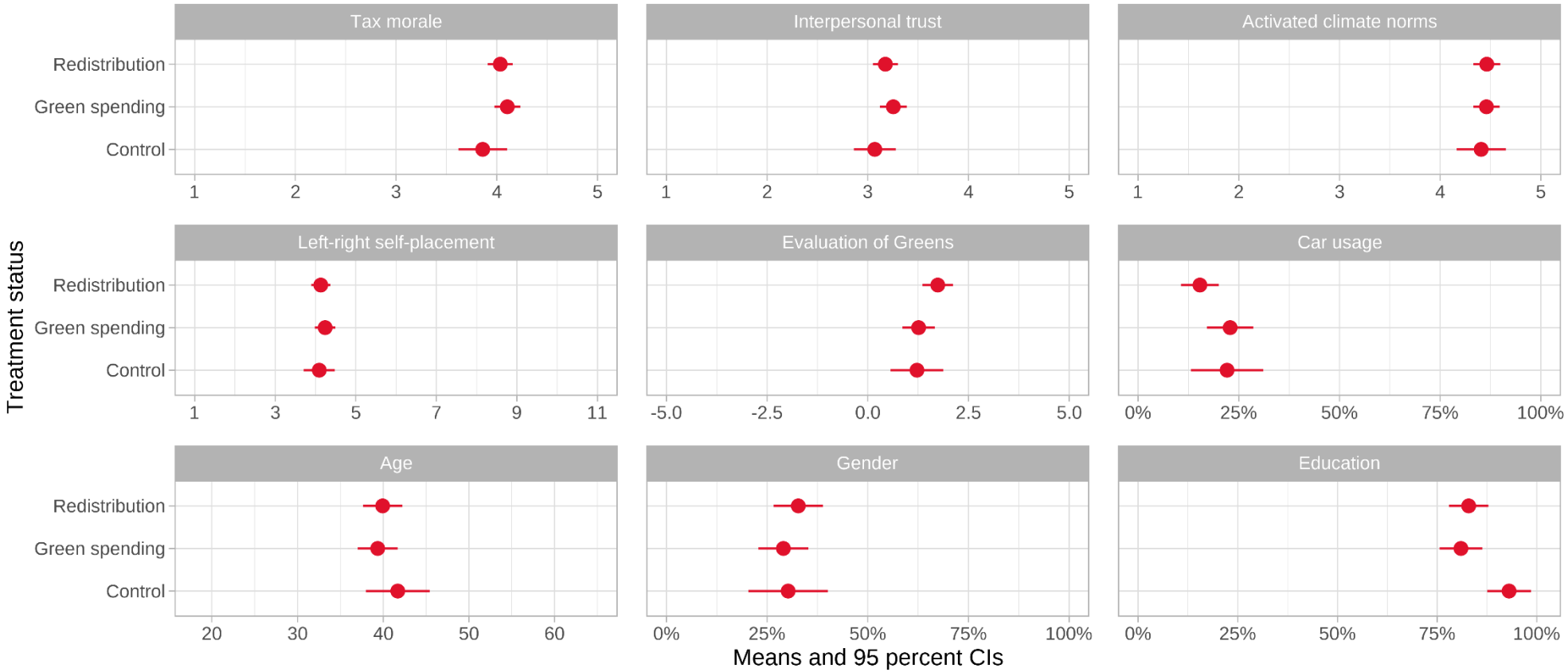
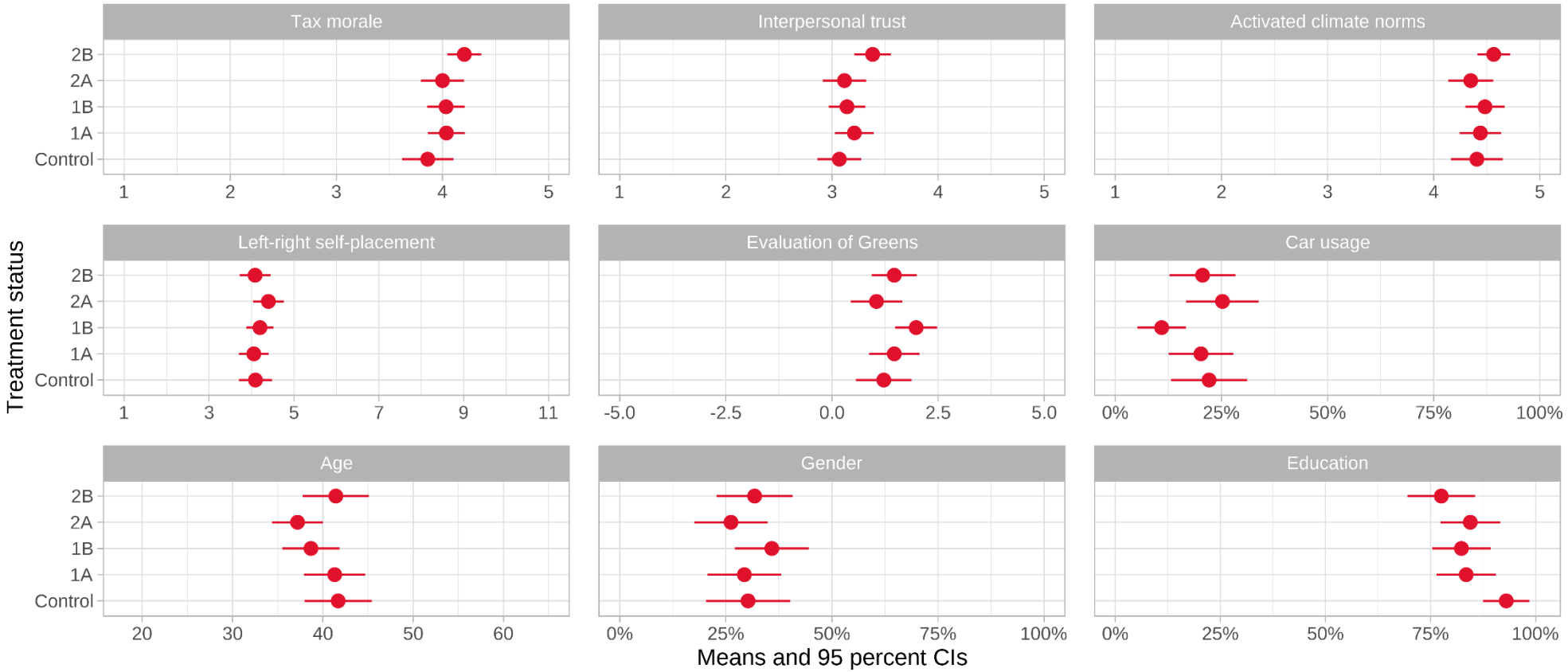
Appendix

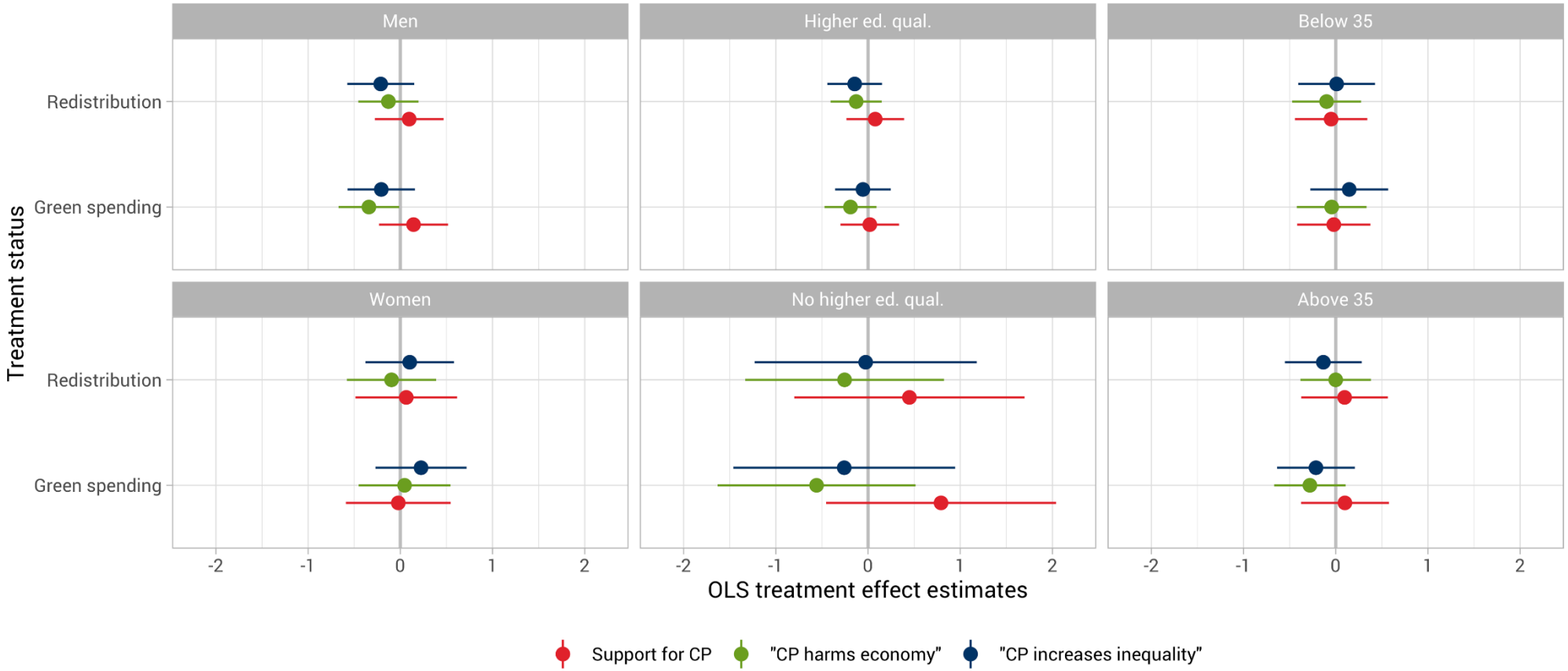
Covariate Balance Aggregated



Covariate Balance Disaggregated



Subgroup Analysis Aggregated



Subgroup Analysis Disaggregated