

Motivation for the research

Our paper's research objective is precisely to investigate what socio-economic features drive the short to mid-term distributive impacts of the French government's National Low-Carbon Strategy (Stratégie Nationale Bas Carbone, SNBC). To that end, we develop an original methodology to produce economic outlooks both consistent at the economy-wide level and disaggregated across several thousand household types characterised by several hundred socio-economic characteristics.

1

Heterogeneity of income and consumption
for each household

Who bears the burden of the carbon tax ?

2

Energy Efficiency Technologies : Thermal efficiency and Electric Vehicles

Are technologies efficient enough to erase the inequality of the tax ?

3

Tax recycling and compensation

How could we distribute the revenue of the carbon tax to the most vulnerable ?

Model

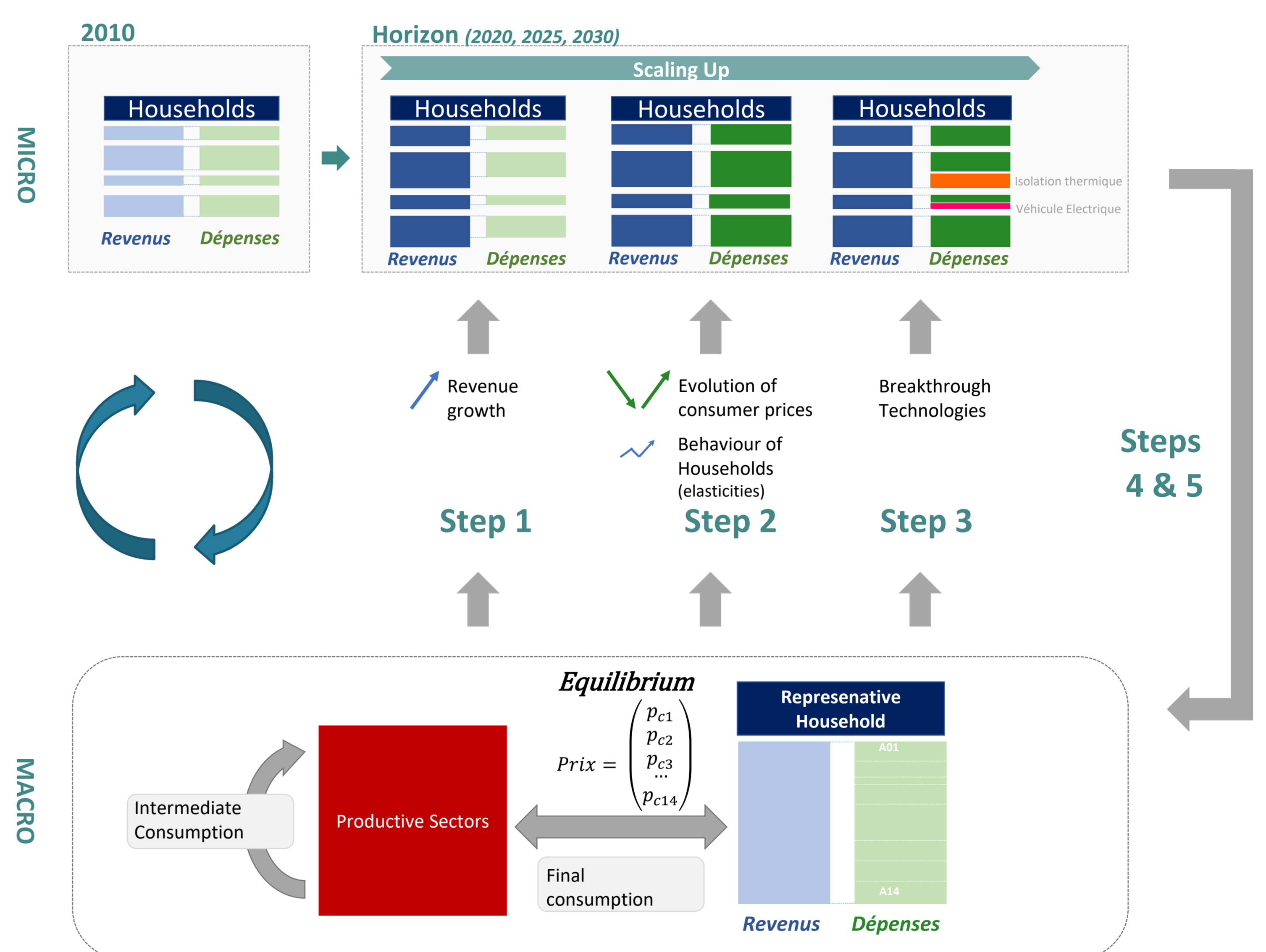
Our model combines a micro-simulation and computable general equilibrium (CGE) techniques to produce economic outlooks both consistent at the economy-wide level and disaggregated across several thousand household types characterised by several hundred socio-economic characteristics.

Macroeconomic model

⇒ Economic trend of prices and wages

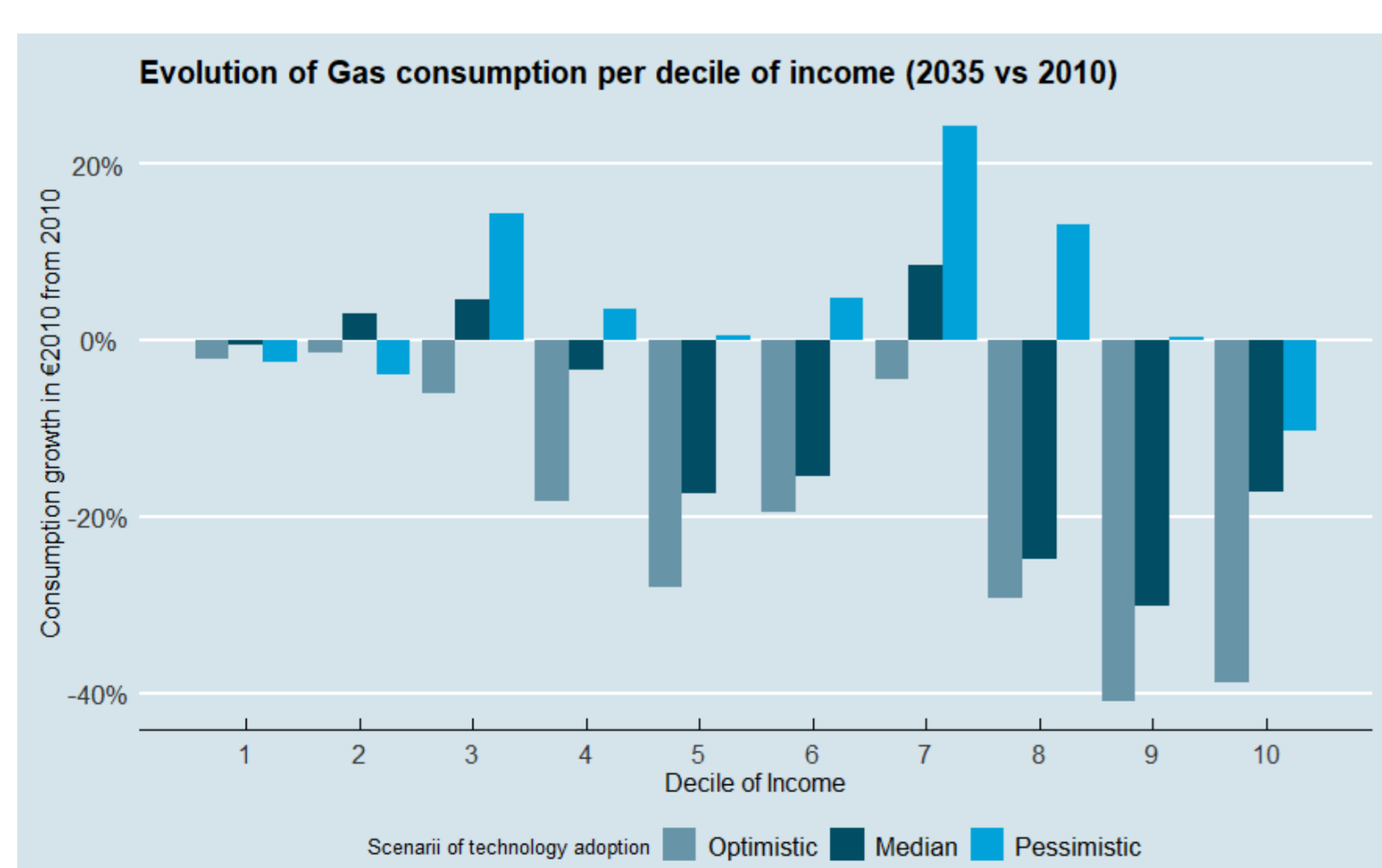
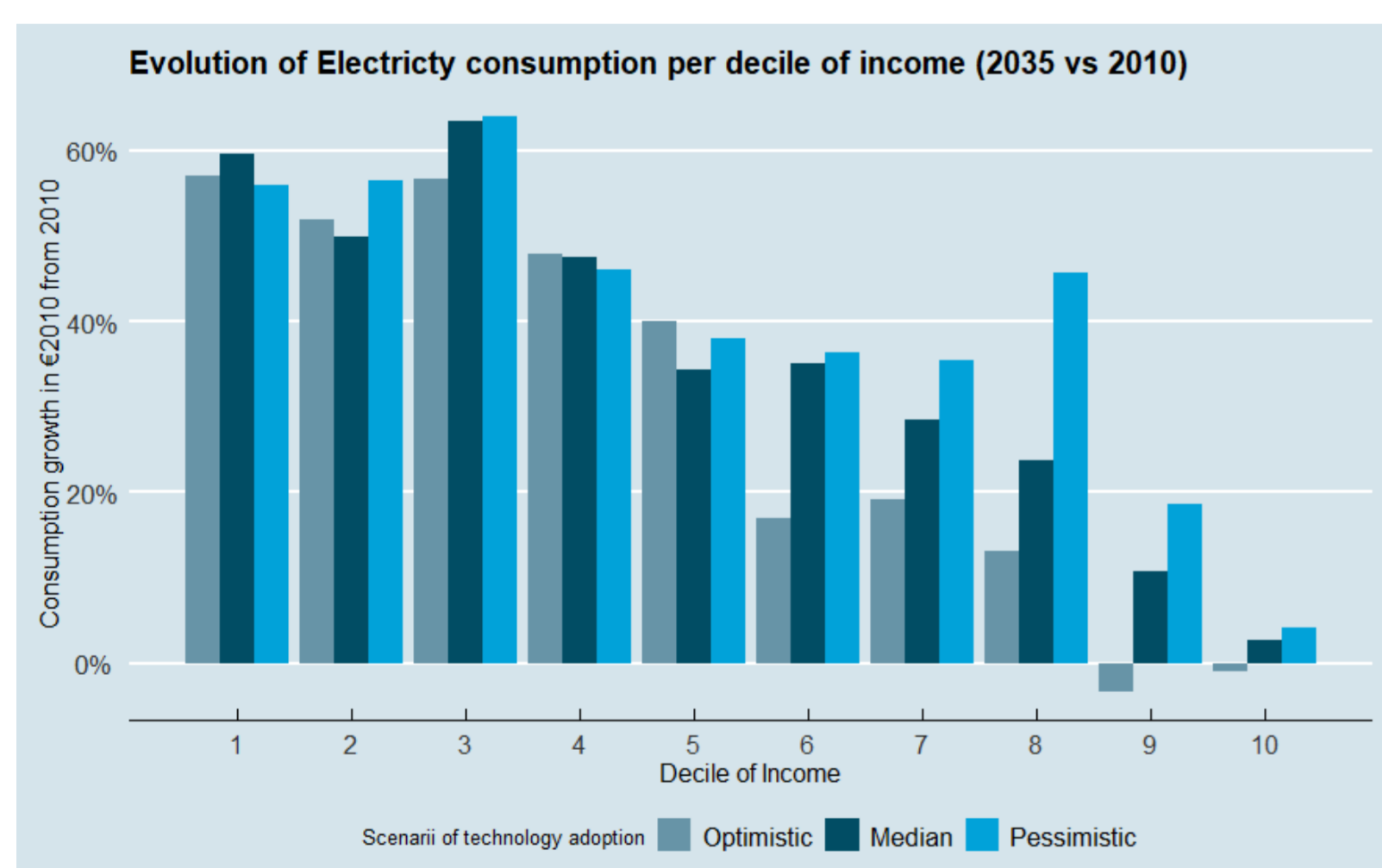
Microeconomic simulation

⇒ Follow consumer Behavior
⇒ Technology adoption : cost and money saving

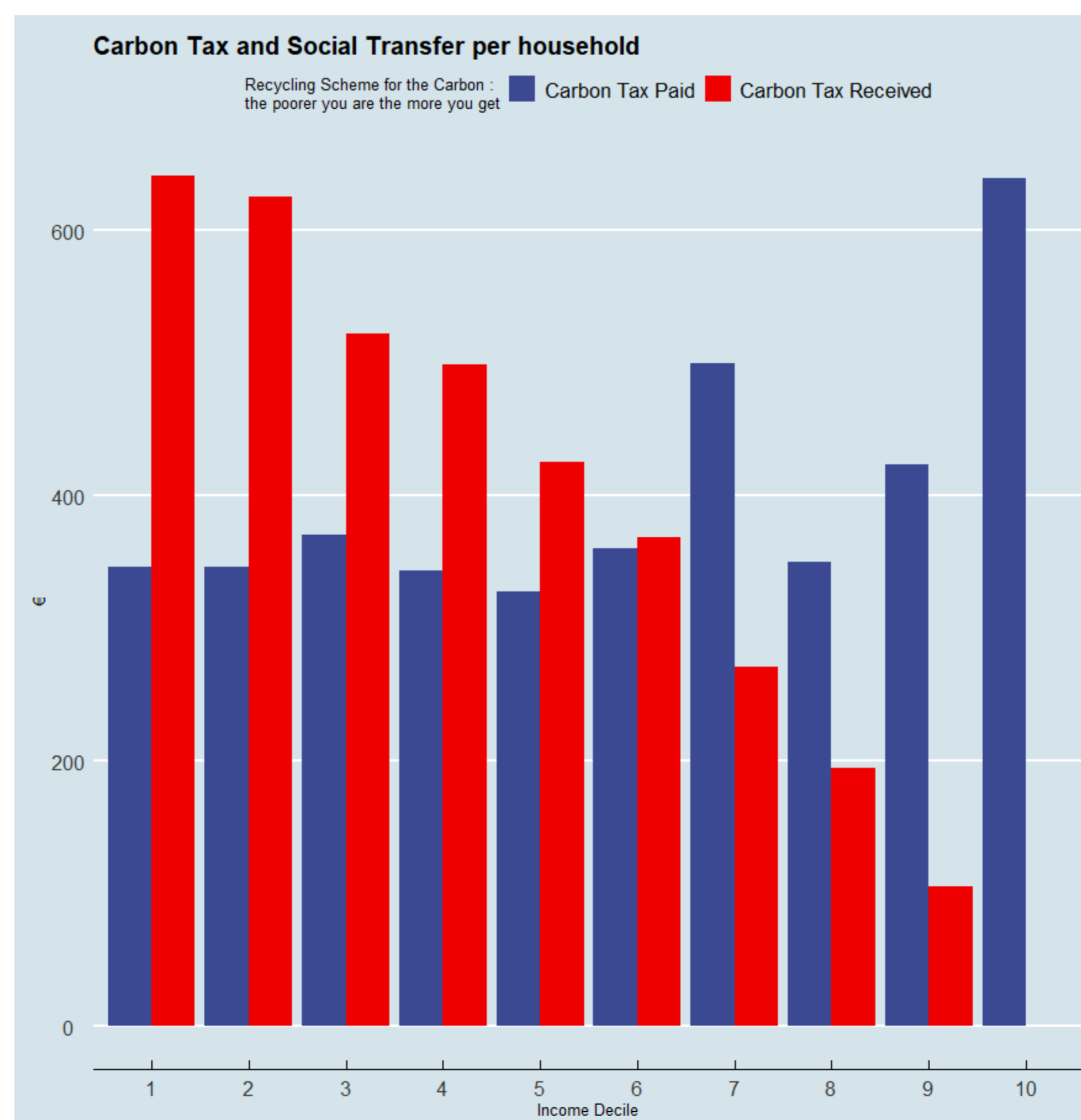


Key Findings (Preliminary Results)

➤ **Targeting the most energy-intensive households (Optimist) is the best way to reduce gas consumption** (replaced by electricity)



➤ **Recycling the carbon tax towards the poorest households ensures that the tax is fair**



➤ **Fuel Poverty in rural areas is reduced by recycling the tax towards the poorest**

