The Humble Economist:
What economics can – and can't – tell us about climate change

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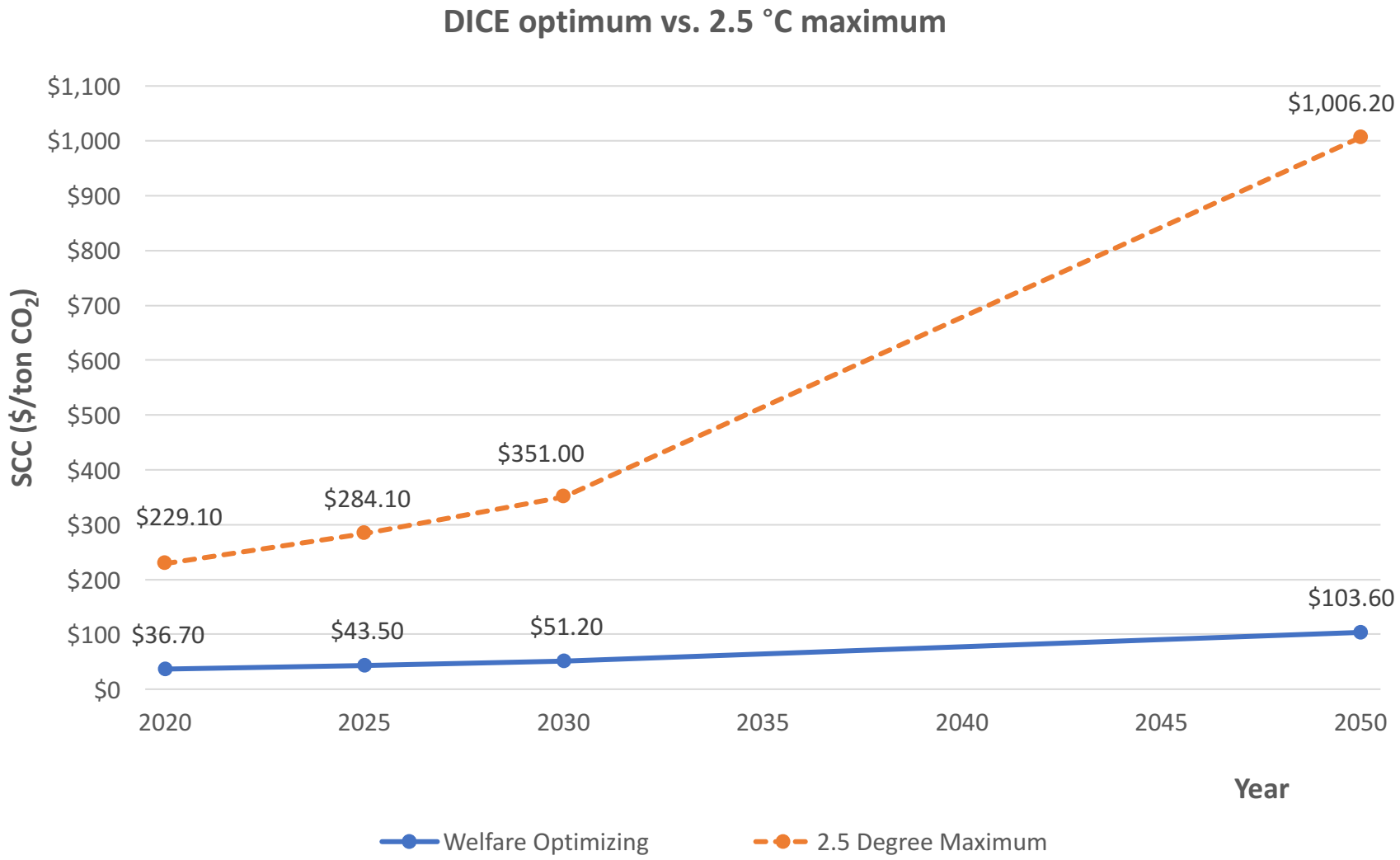
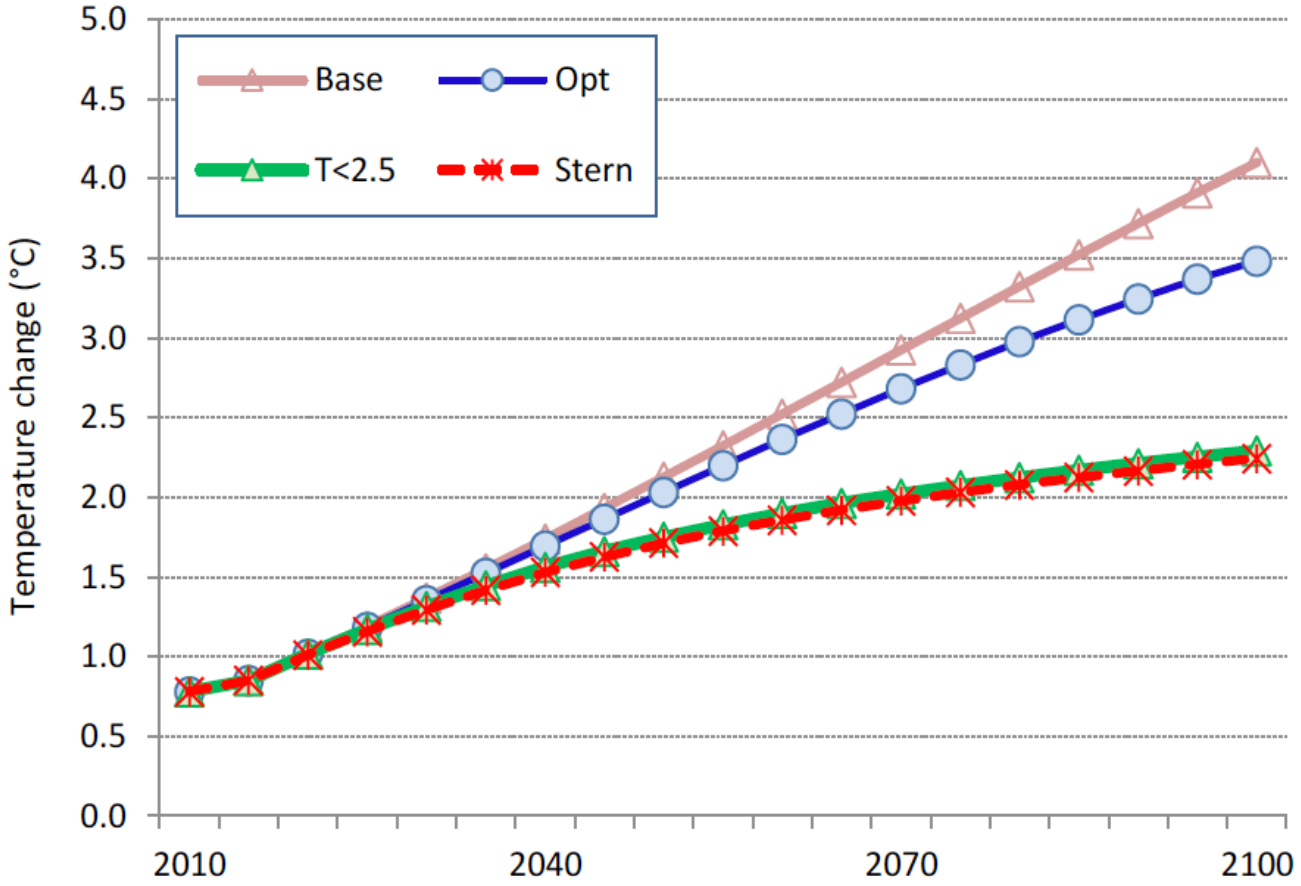
Carbon price paths



Global CO2 price in 2010 US dollars. Data from Nordhaus (2017a), Table 1.

Temperature paths

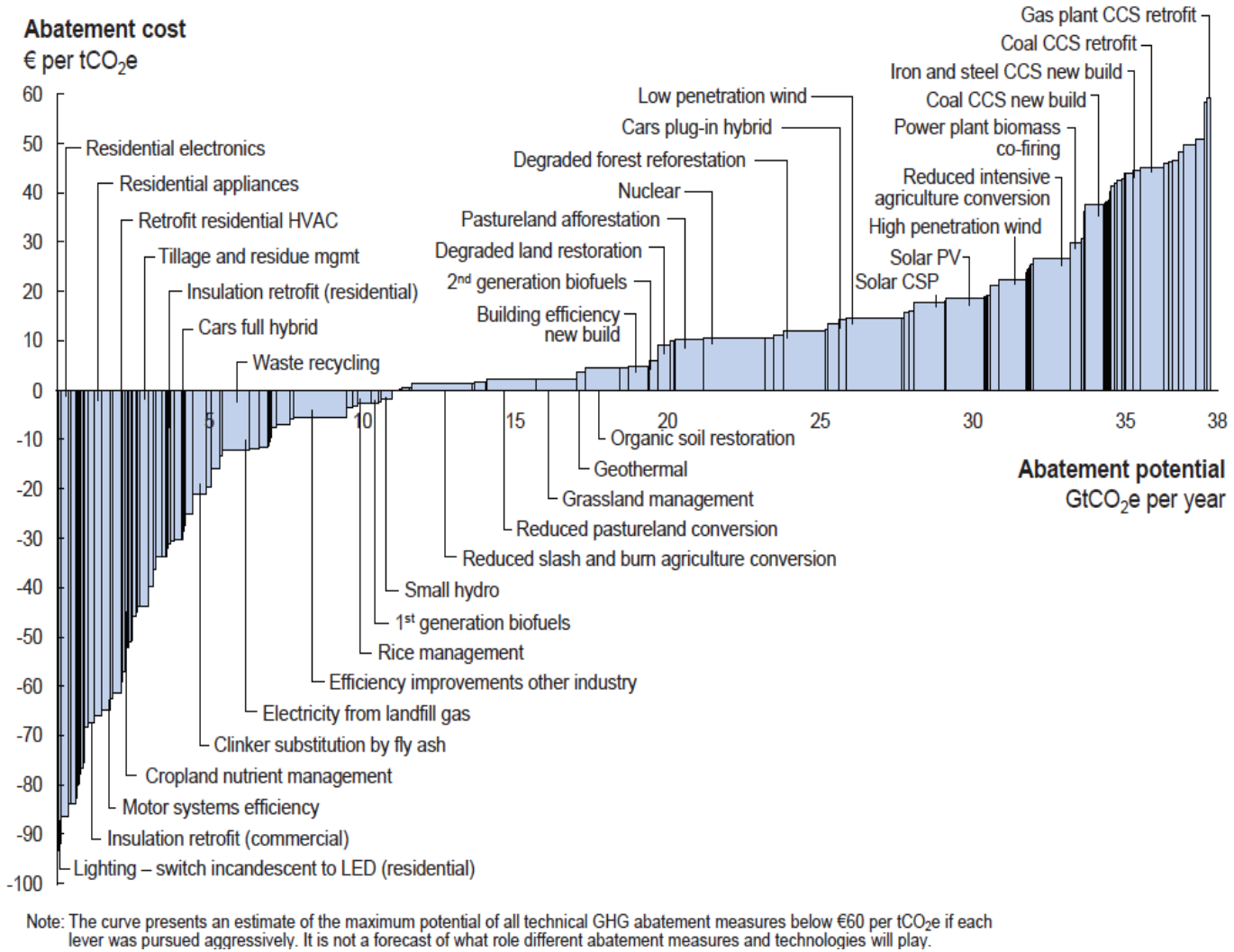


Notes: Base = business-as-usual scenario (no climate policy); Opt = cost-benefit economic optimum from DICE model; T<2.5 = path that limited global mean temperature increase to 2.5 °C; Stern = policy with low discount rate recommended by Stern Review (2007).

Source: Nordhaus (2017b), Figure 4.


Say
what?

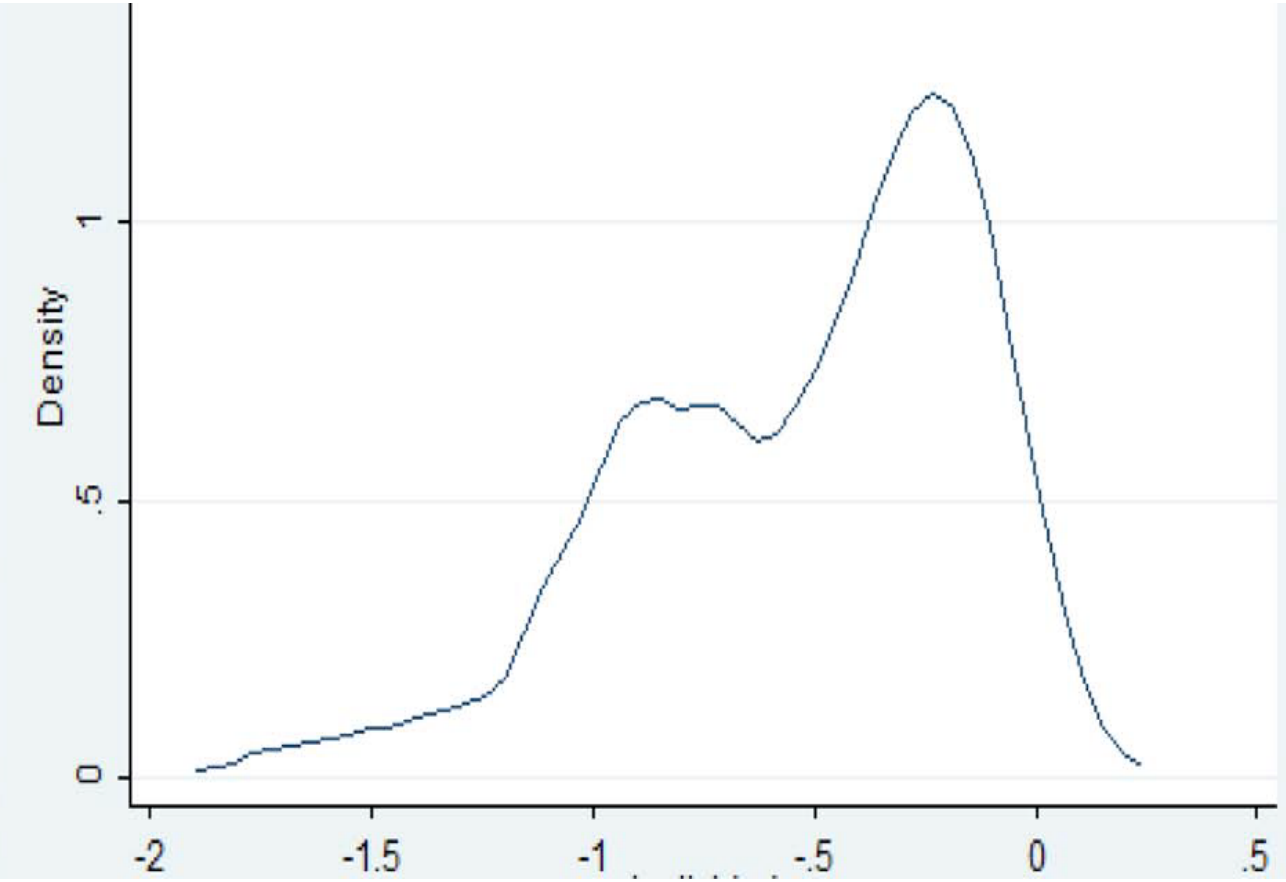
Marginal Costs of Emission Reduction Options



Note: The curve presents an estimate of the maximum potential of all technical GHG abatement measures below €60 per tCO_2e if each lever was pursued aggressively. It is not a forecast of what role different abatement measures and technologies will play.

Source: McKinsey & Company (2009) *Pathways to a Low-Carbon Economy: Version 2 of the Global Greenhouse Gas Abatement Cost Curve.*

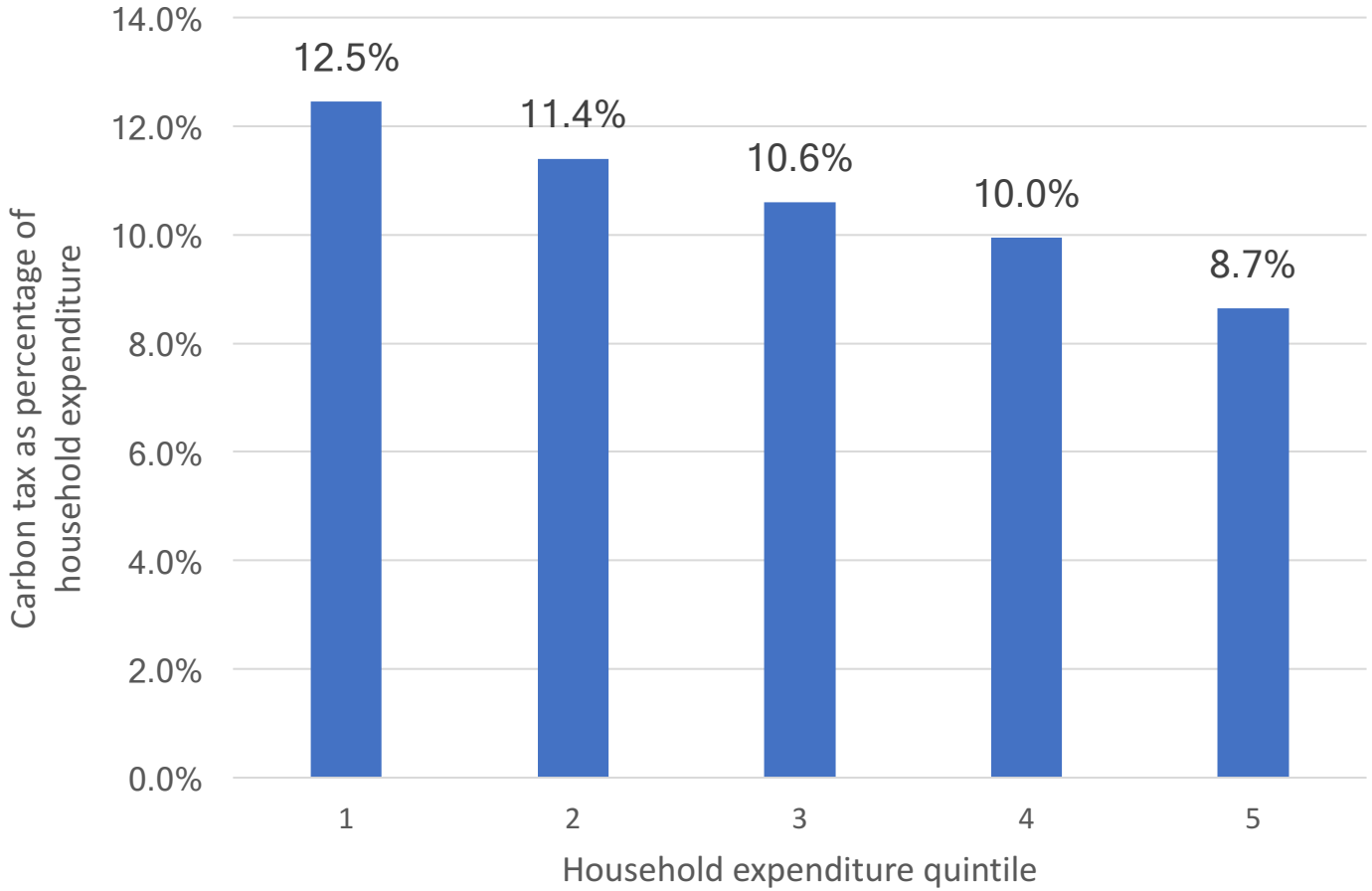
Frequency distribution of estimated long-run price elasticities of demand for energy



Note: Distribution of 959 estimated long-run price elasticities of demand obtained from multiple studies.

Source: Labandeira *et al*. (2017), Fig. 1.

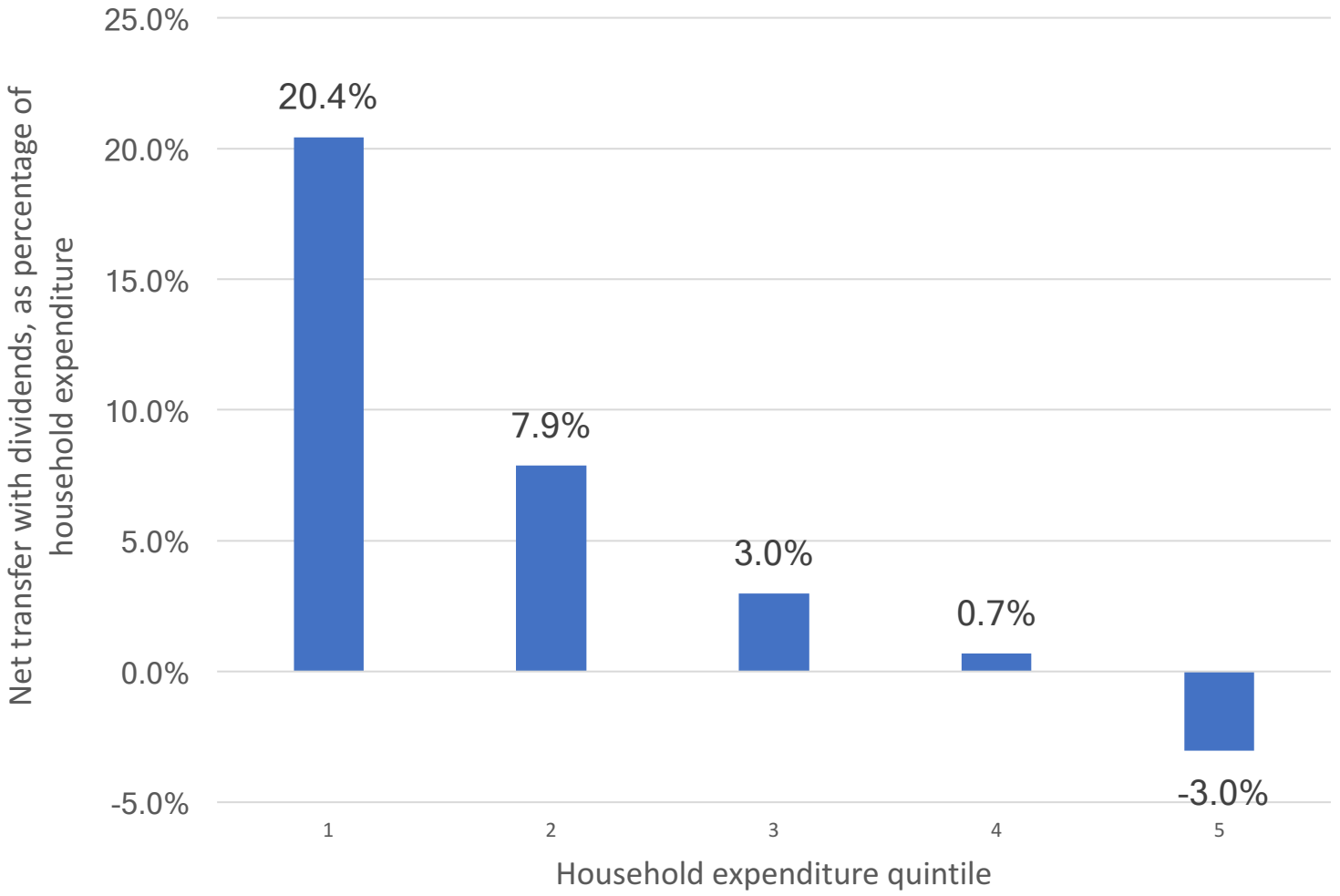
Incidence of $200/t CO2 tax in U.S.



Note: Based on consumer expenditure survey data for 2012-2014. Quintiles based on equivalent household expenditures using the square root scale, where equivalent household expenditures = household expenditures/(household size^1/2).

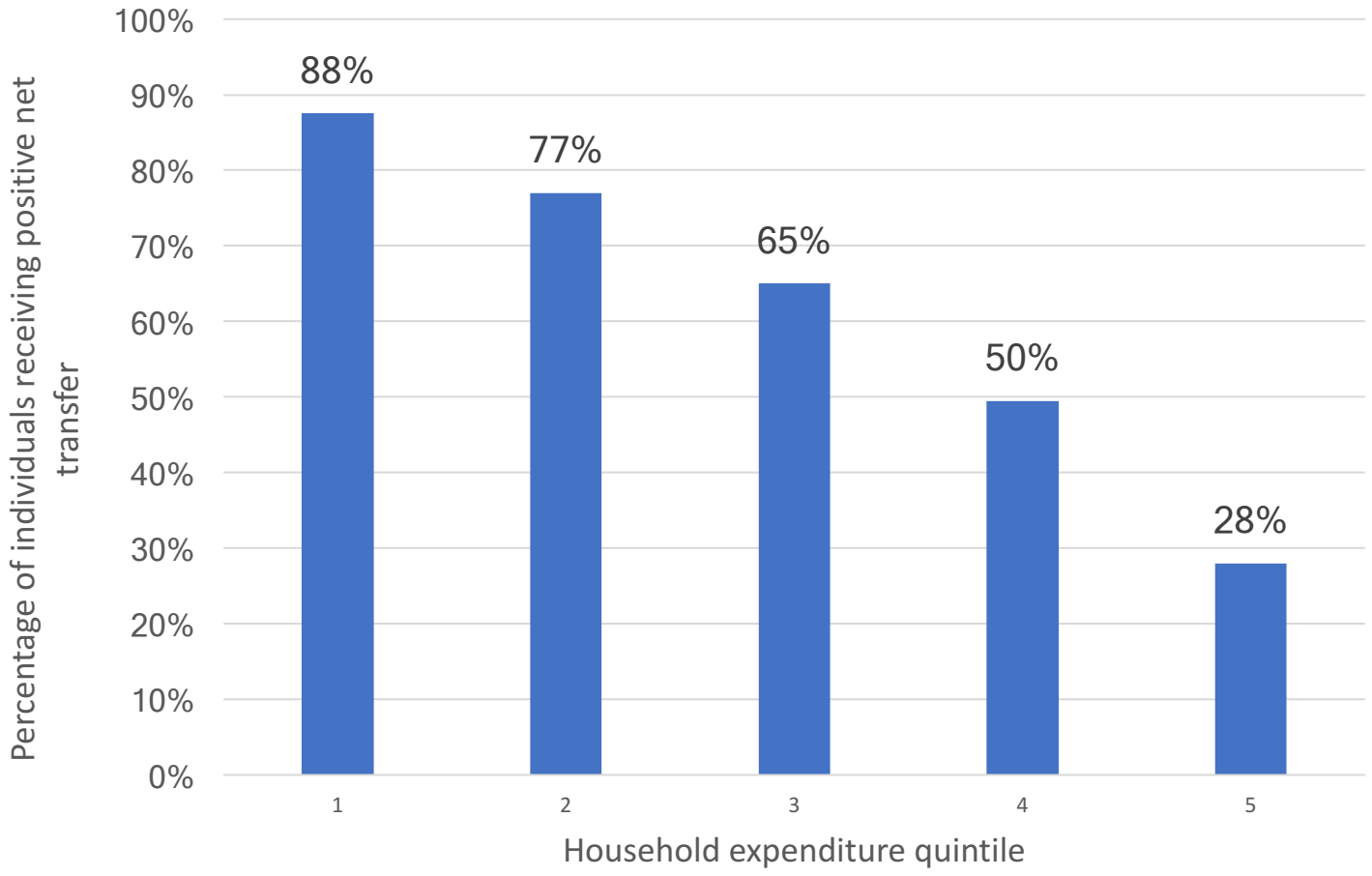
Source: Calculated from data presented in Fremstad and Paul (2017), Table 10.

Net incidence of $200/t CO2 tax coupled with dividends in U.S.



Source: Calculated from data presented in Fremstad and Paul (2017), Table 10.

Percentage of individuals receiving positive net transfers from $200/t CO2 tax coupled with dividends in U.S.



Source: Calculated from data presented in Fremstad and Paul (2017), Table 10.