

Distributional Considerations with Carbon Pricing

Panel I

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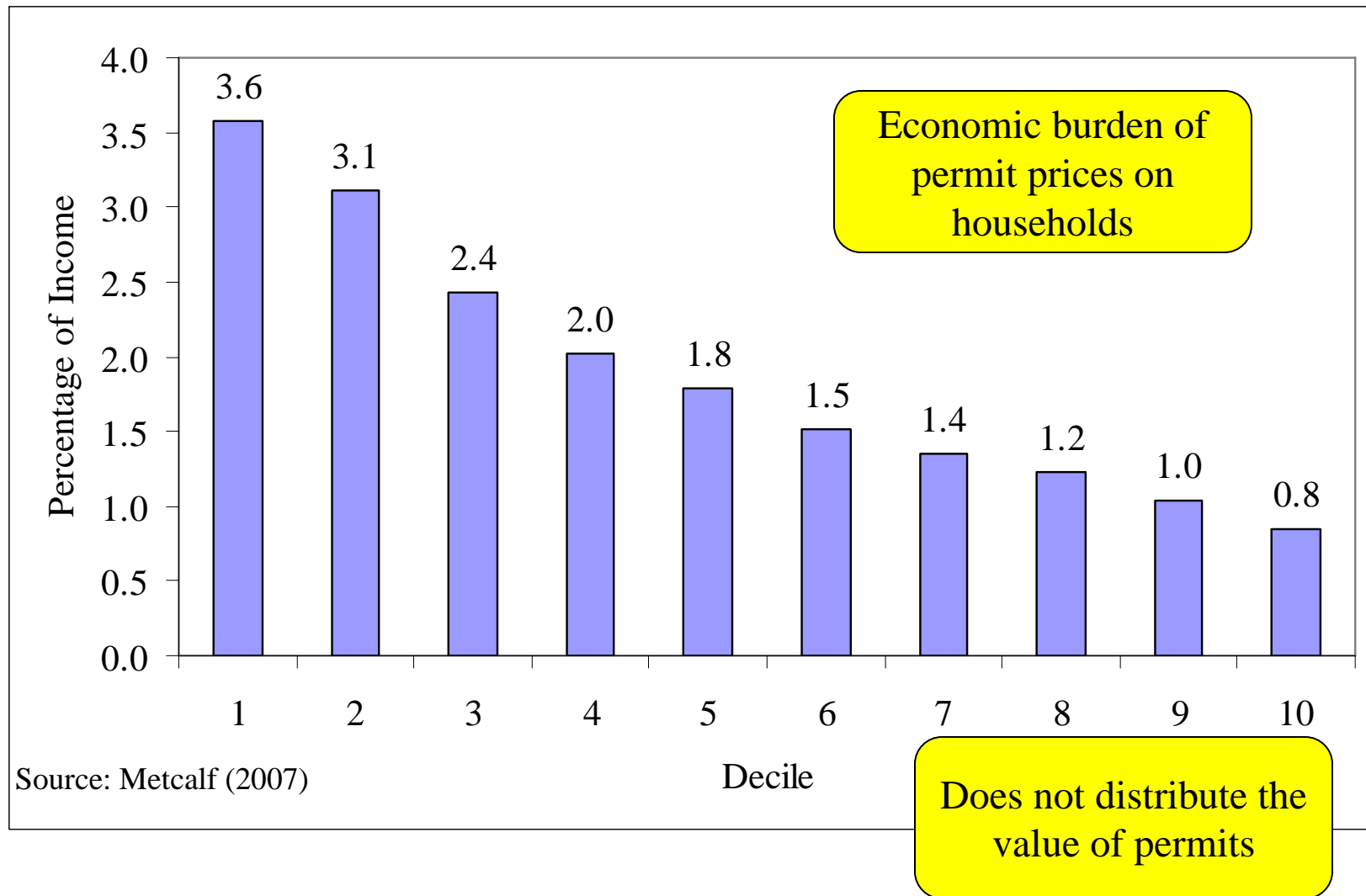
Burden of Carbon Pricing

- Carbon taxes have a burden
- Cap & trade systems also have a burden
- The price of carbon emissions is equally affected by a tax on emissions as it is by the need to surrender a valuable permit

Is Cap & Trade Regressive?

- Analysis using 2003 data for a \$15 per ton CO₂ permit price
 - energy price impacts traced through production of goods and services
 - household consumption patterns linked to price increases
- Ignore allowance allocation for the moment

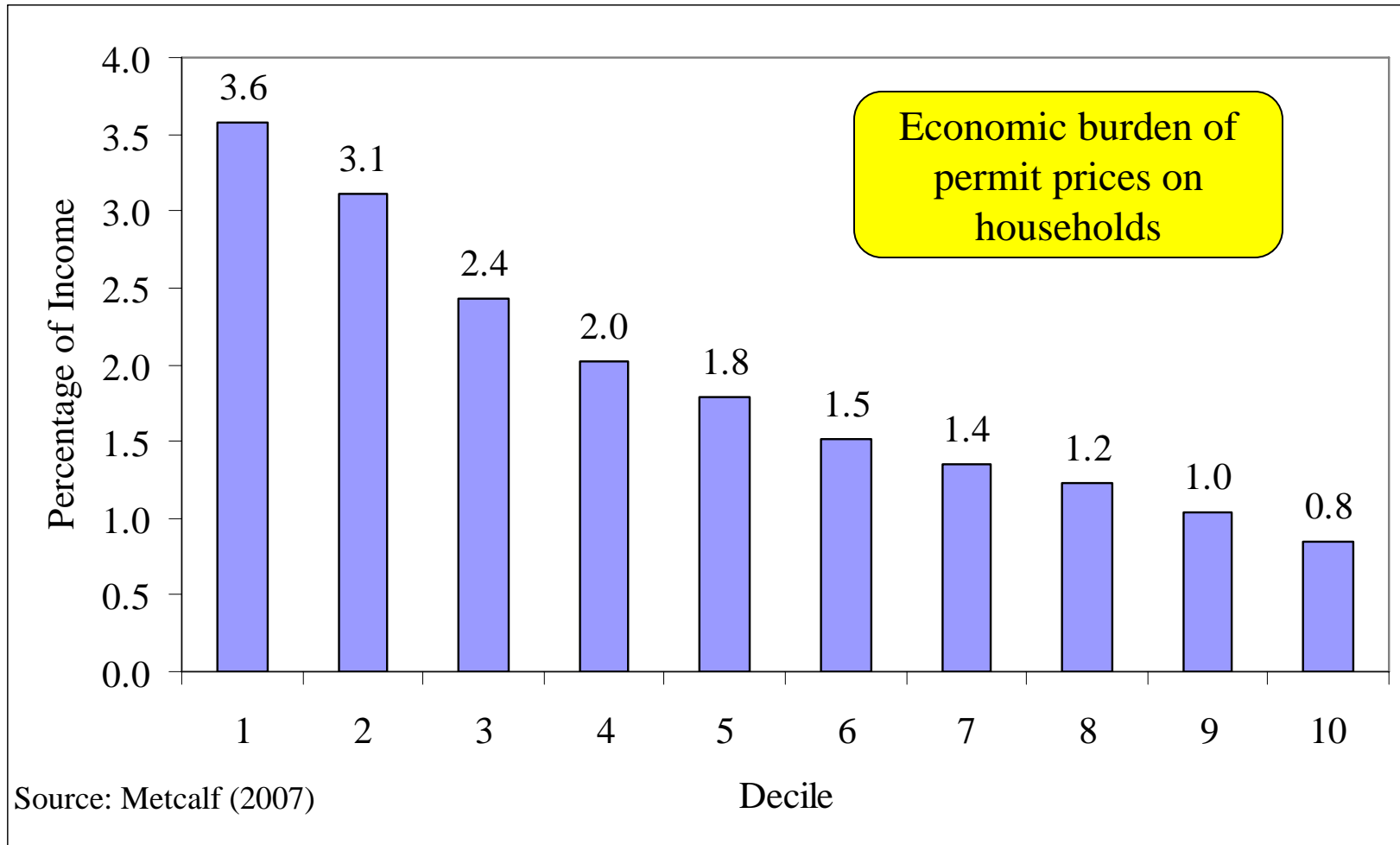
Burden of Permit Costs



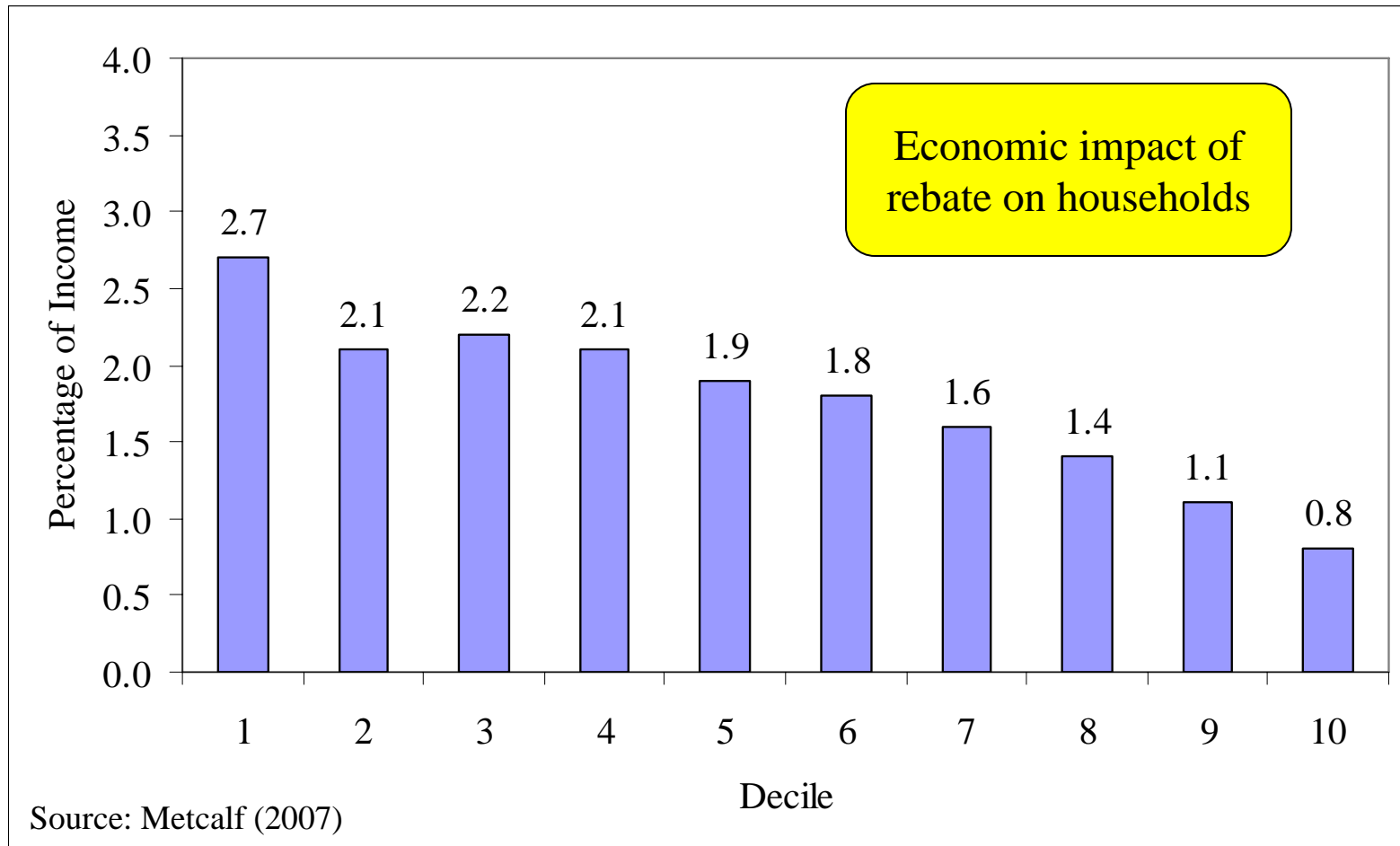
Use of Proceeds from Auctioning

- Market clearing price of permits is \$15 per metric ton of CO₂
- Carbon revenues rebated to households through an environmental earned income tax credit
- Analysis using 2003 emissions and economic data
- \$80 billion in revenue

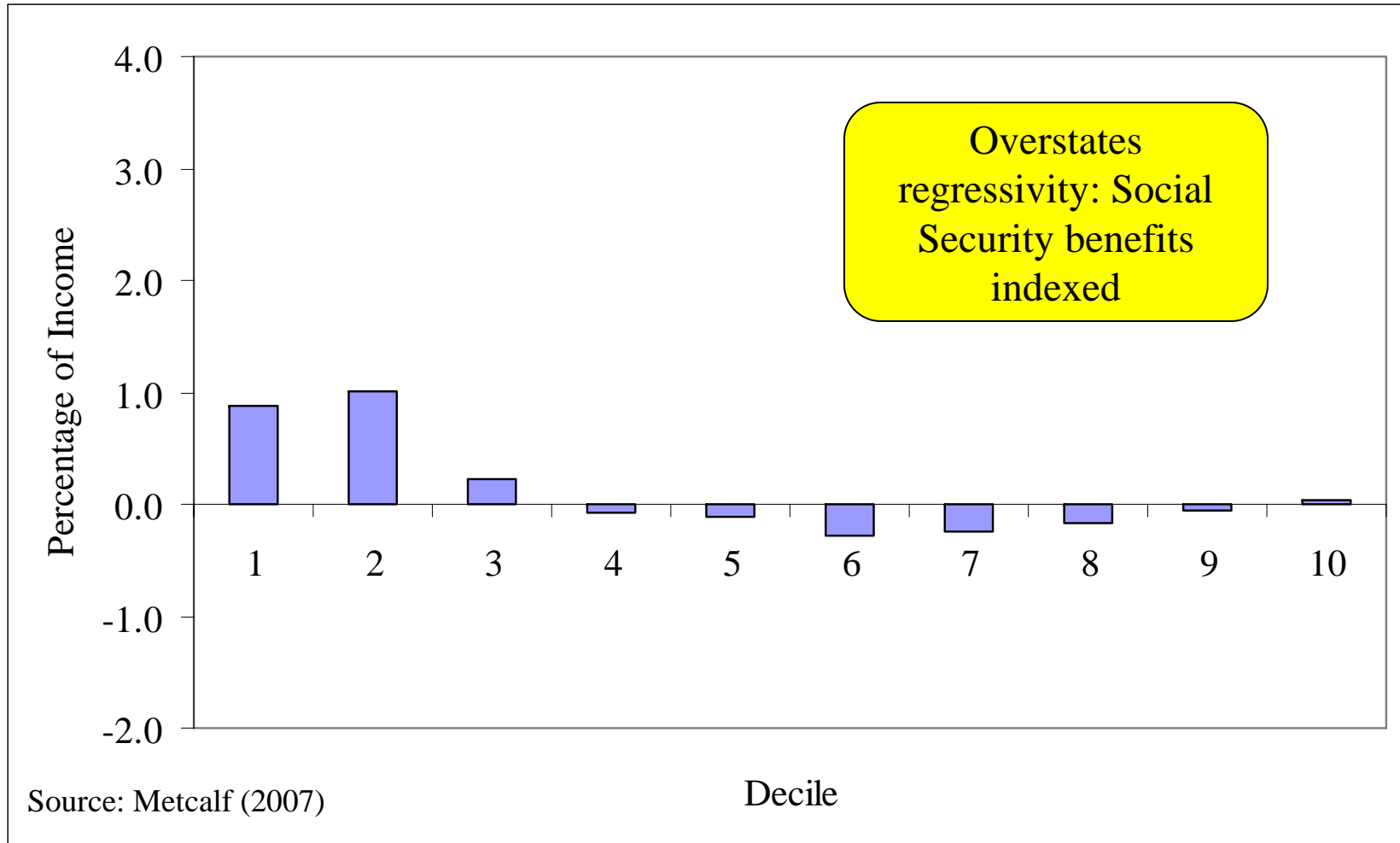
Burden of Permit Costs



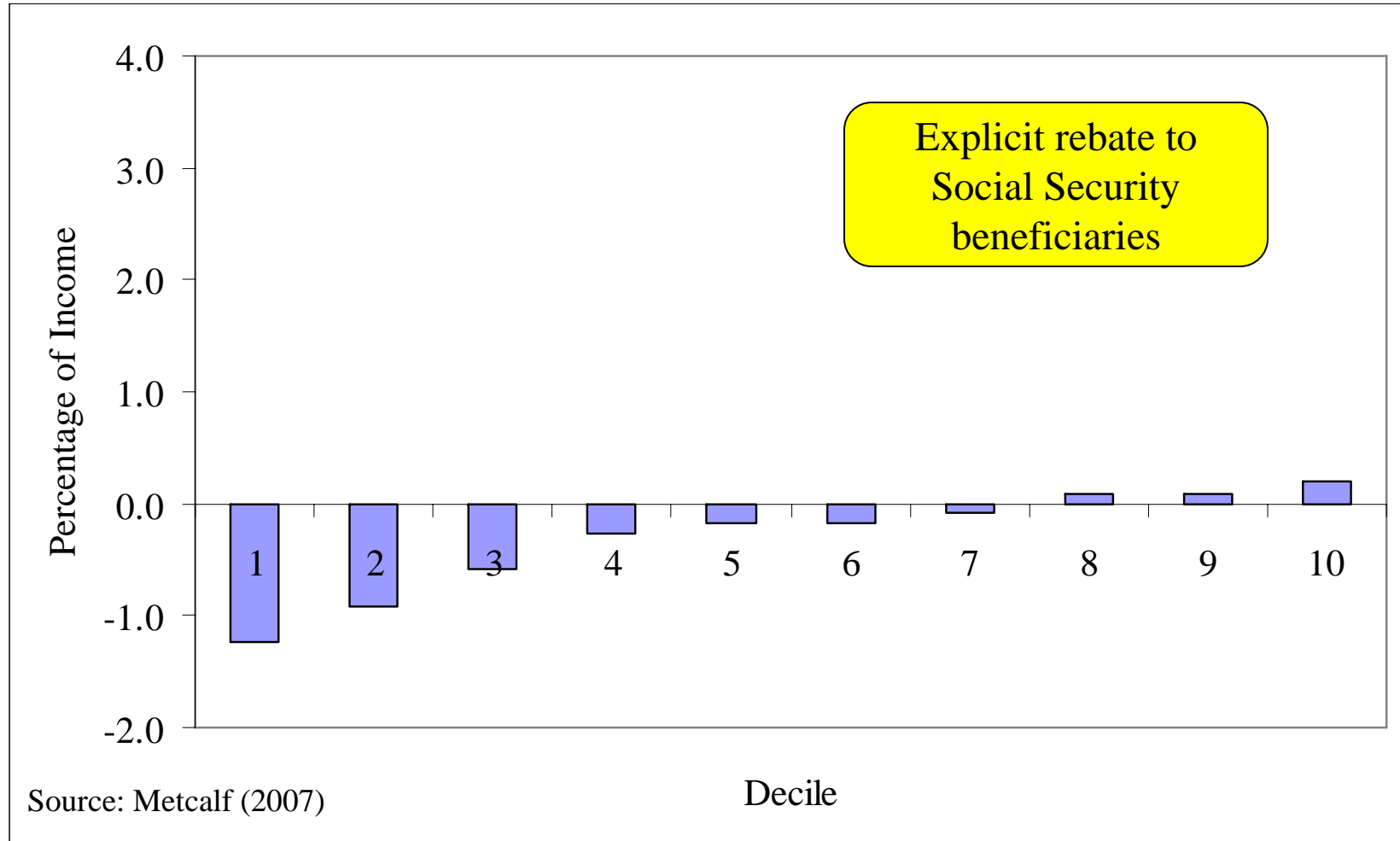
Rebate Distribution



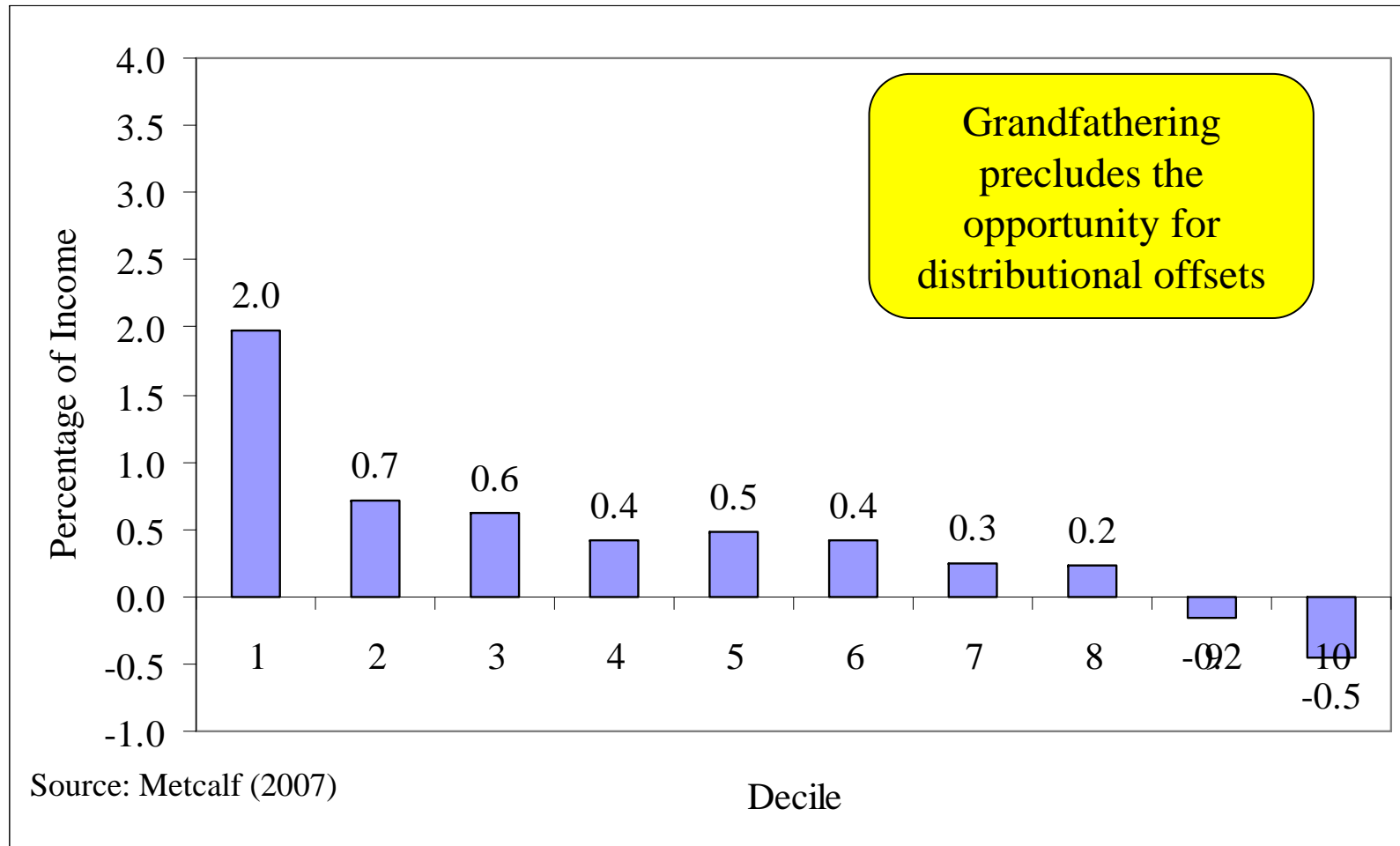
Net Burden



Net Burden



Distributional Impact of Grandfathering



Summing Up

- Carbon pricing is regressive
- Regressivity can be undone through well-designed rebate of carbon revenue
- Grandfathering exacerbates regressivity
- Revenue from auctioning allowances can be used for distributional or efficiency gains
- Revenue provides fiscal flexibility lost with grandfathering