

# Budget Perspectives 2020: carbon taxes & compensation options

## DATE

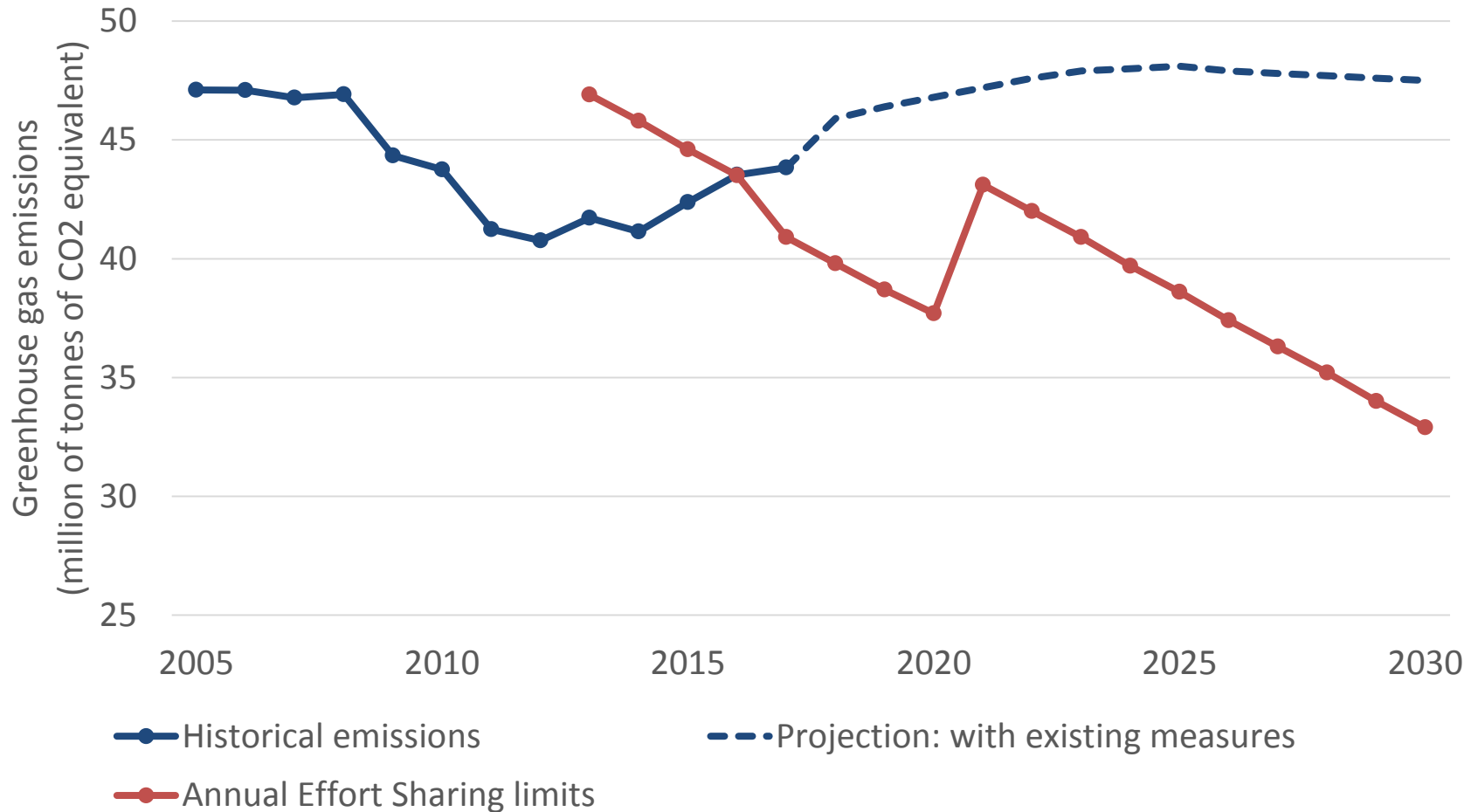
13<sup>th</sup> June 2019

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# Ireland faces challenging emissions targets



## ... unlikely to be met without rise in carbon tax

Introduced by FF/Green coalition in 2010 at €15 per tonne

- Was supposed to double by 2014, but subsequent coalition decided to increase by just €5 and held fixed at €20 since
- Applies only to fuels outside of EU Emissions Trading Scheme

International & Irish evidence that carbon taxes work

- Reduced emissions by 5-8% in British Columbia with little adverse impact on economic activity (Metcalf, 2019)
- Similar conclusion to de Bruin and Yakut (2018), who also find that current level too low to achieve targeted reductions

## But concerns that some groups may be disproportionately affected by tax rise

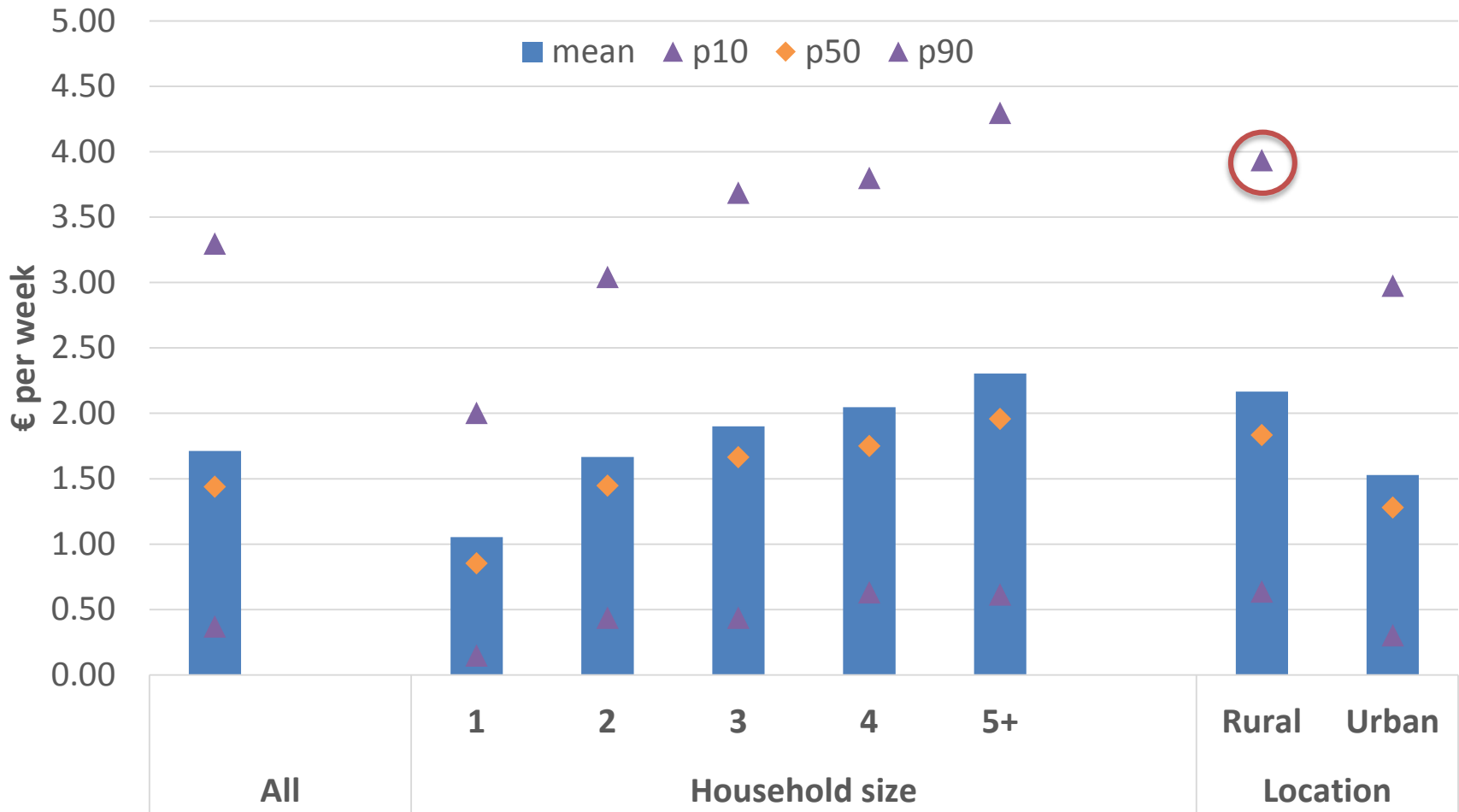
Prompted Oireachtas Committee on Climate Action to call for the government to introduce:

- “specific policy measures to assist those who may not be in a position to immediately transition from fossil fuels, including ... [increases to] tax credits & welfare payments”

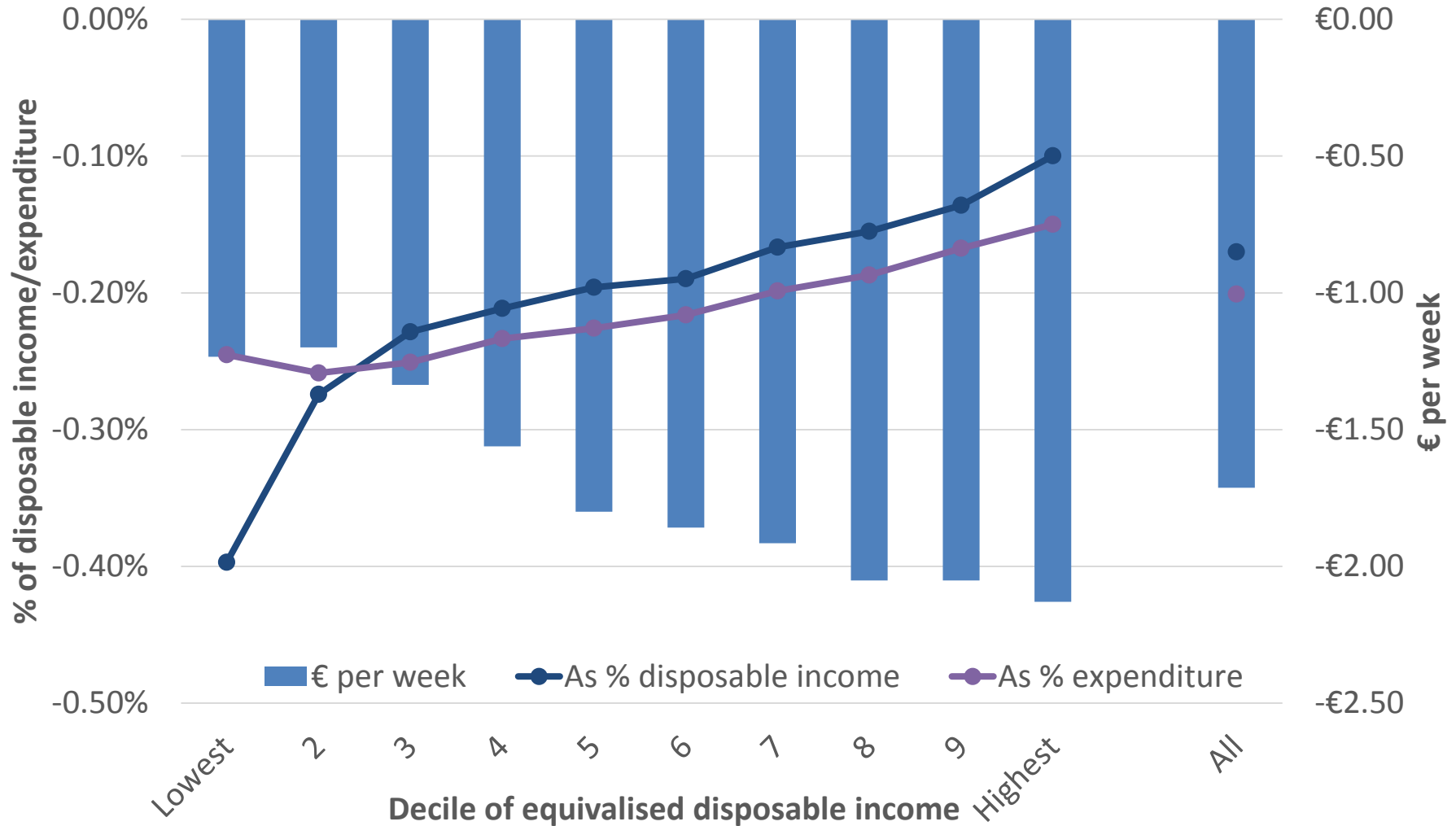
This paper examines distributional effects of €10/tonne carbon tax rise in 2020 & possible compensation options:

- Raises extra €210m per year, which consider disbursing as flat-rate lump sum or rise in tax credits/benefit payments
- Take behaviour of households & firms as given to isolate ‘first-round’/immediate effect on households’ incomes

# Before compensation, large households and rural dwellers would see largest cash losses



# While lower-income households would see larger losses as % of both income & spending



## Carbon tax rise would slightly increase energy poverty, but some issues with official measure

- 'Core' measure is spending >10% AHC income on energy
- Would rise from 17.4 to 18.1% before any compensation

But this sensitive to arbitrary income threshold & doesn't correspond well with subjective measures in other data

- <10% report inability keep their home adequately warm: closer to measures of 'severe' & 'extreme' energy poverty

... and doesn't take account of gains from compensation measures that revenues raised could finance

# Consider 4 alternative compensation packages

## A. Lump-sum rebate

- Equal sized 'cheque-in-the-post' for each household

## B. Increase to all income tax credits

- including €60 rise in current personal tax credit of €1,650

## C. Increase to maximum rates of social welfare payments

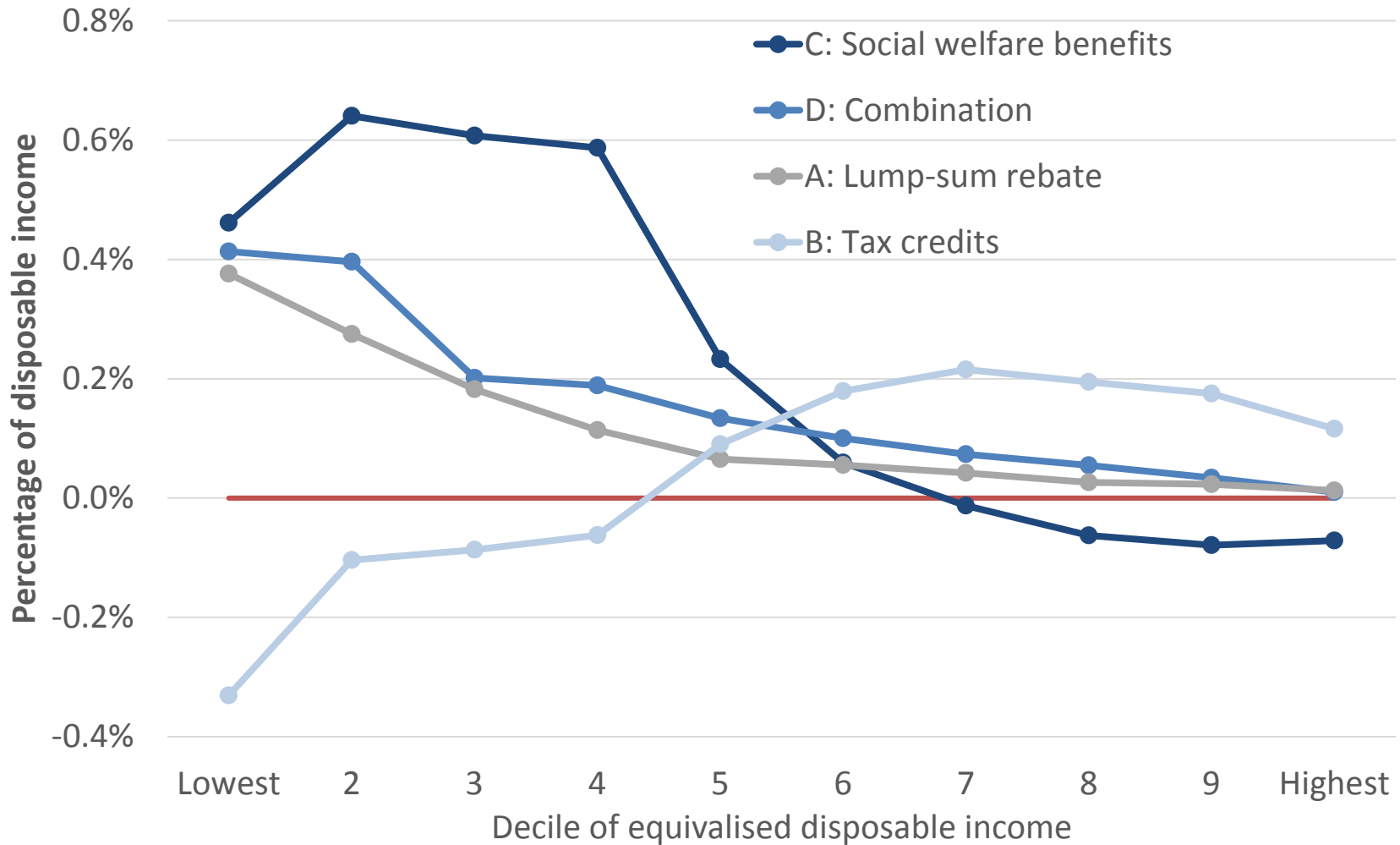
- including €174 pa rise in max rate of state pension

## D. Increases to both tax credits & welfare payments

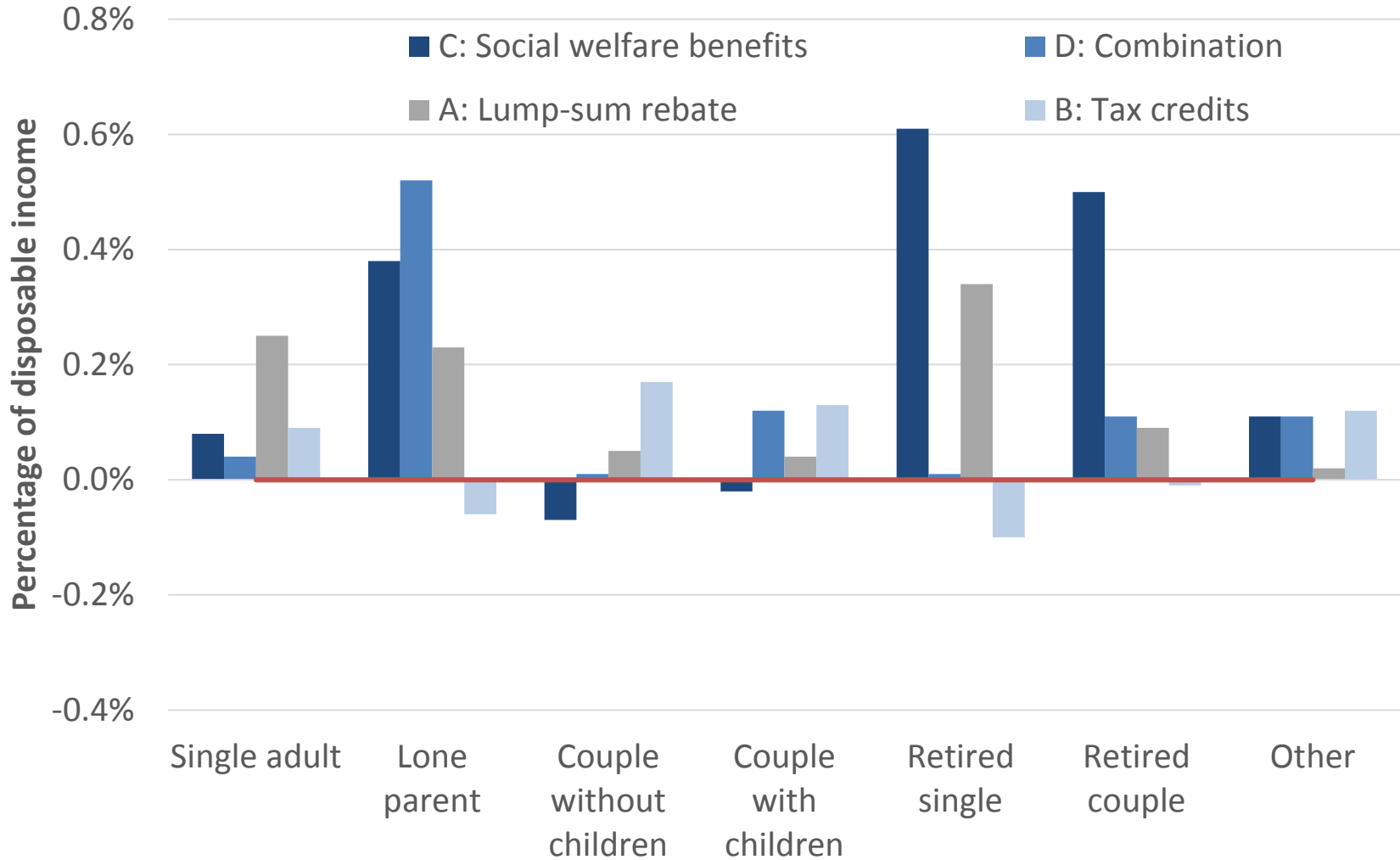
- including child benefit by €26/child pa; tax credits by €25 pa; and state pension by €65 pa



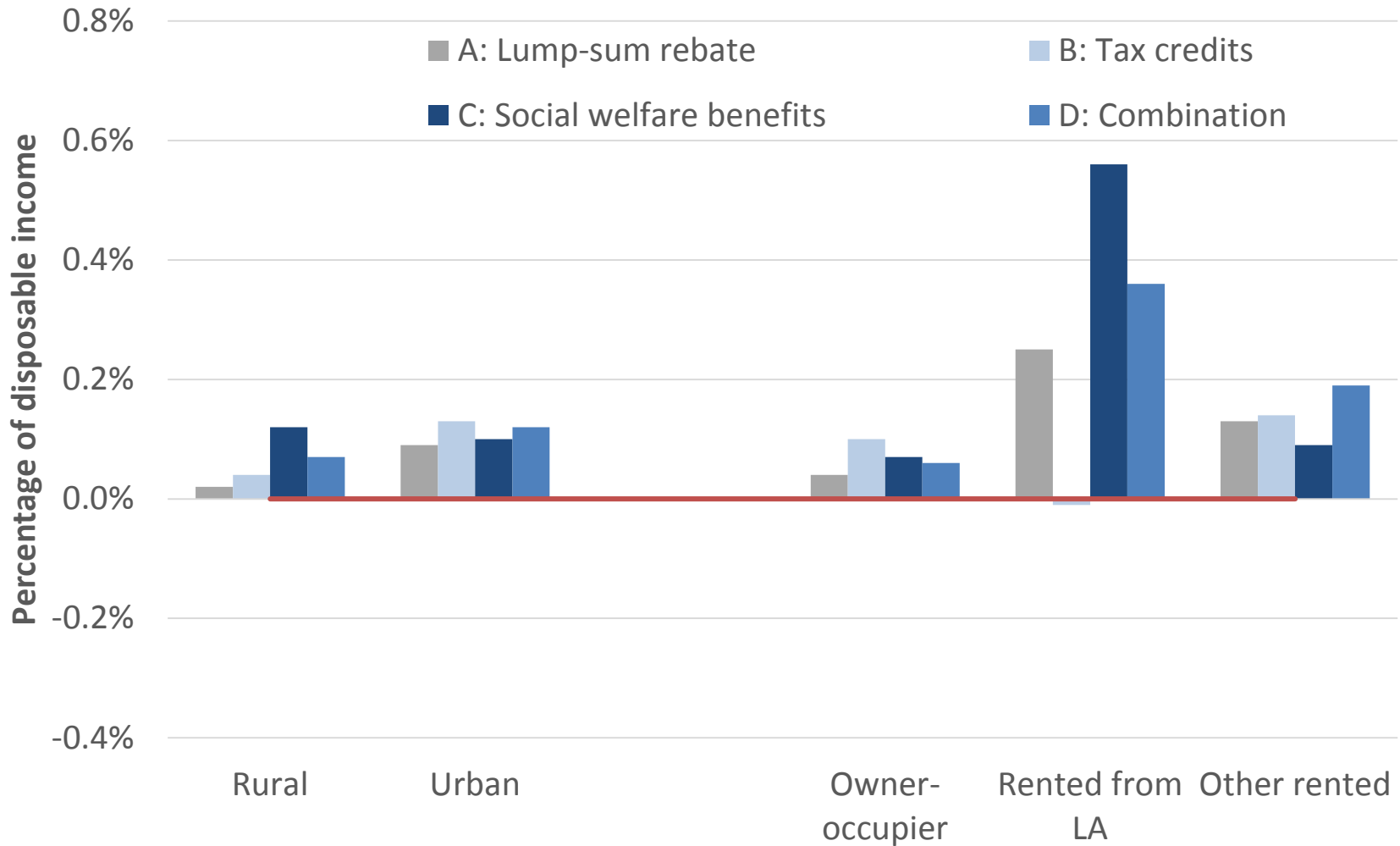
# Can leave low-income households on average better off with packages A, C & D, but not B



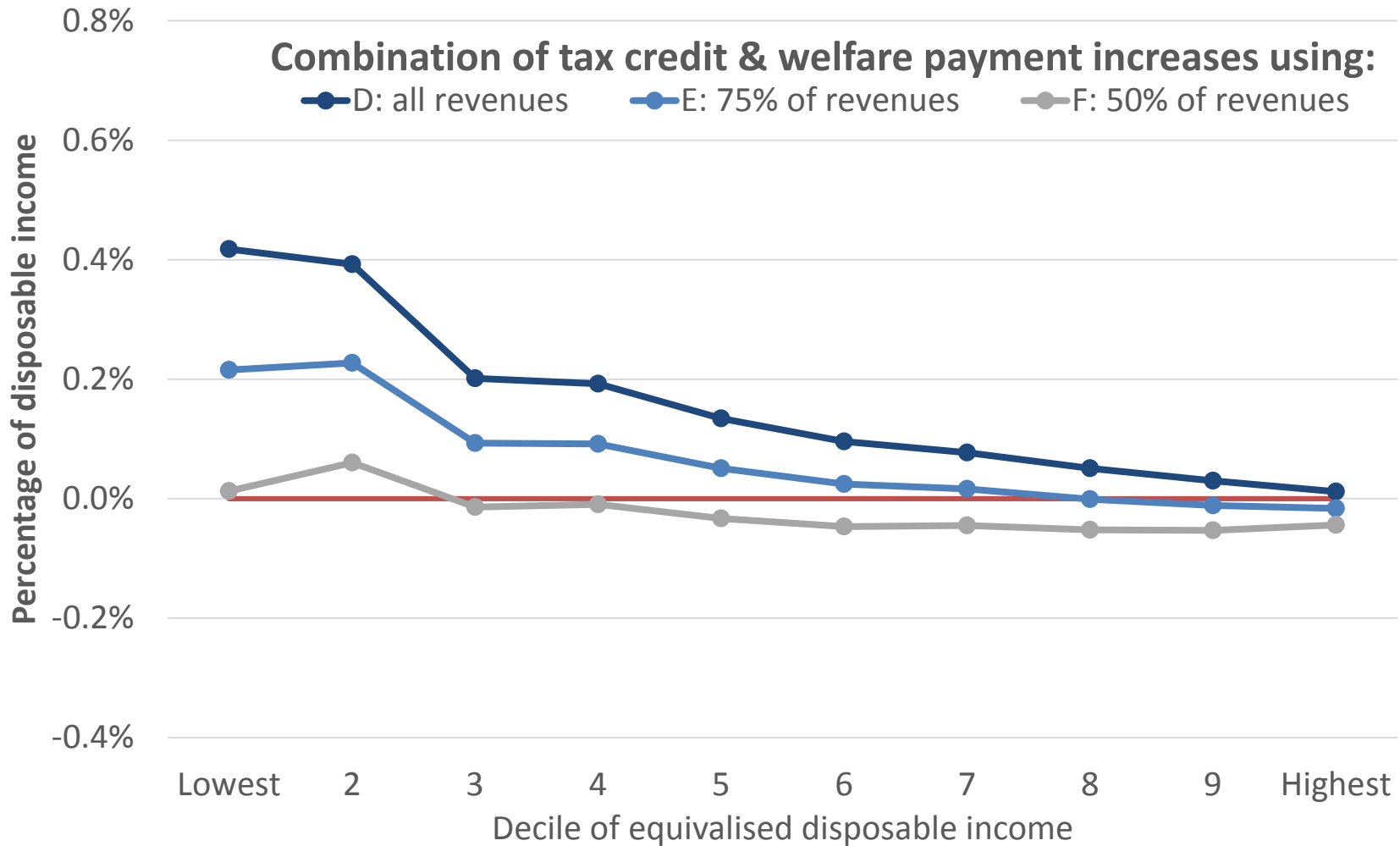
# Packages A, C & D also leave most family types on average better off



# ... as they do rural dwellers and LA renters



# Could also use some revenue on grants etc., but harder to compensate households



## But some important caveats to this analysis

Likely some variation around average within groups

- Saw earlier wide distribution of losses *before* compensation
- Lack of detailed information on incomes & expenditure in same survey means can only look at average net gain/loss

Take behaviour of households & companies as given

- Only capturing '1<sup>st</sup> round' impact of tax rise & compensation
- But Lynch & Tovar (2019) show similar pattern holds accounting for expenditure responses by households
- ... and international research suggests 'source side' impacts may offset regressive 'use side' impacts even before compensation (e.g. Goulder et al., 2018)

## Take away: it's possible to compensate most households for carbon tax rise, but trade-offs:

### A. Lump-sum rebate

- Progressive and clearly communicable, but administratively complex & costly with no boost to economic growth

### B. Increase to all income tax credits

- Likely to yield a 'double dividend' of lower emissions and a larger economy, but low-income households loose

### C. Increase to maximum rates of social welfare payments

- Highly progressive, but weakens work incentives for some

### D. Increases to both tax credits & welfare payments

- Progressive, but unclear if would get a 'double dividend'