

The social dimension of the Emissions Trading Systems

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Overview

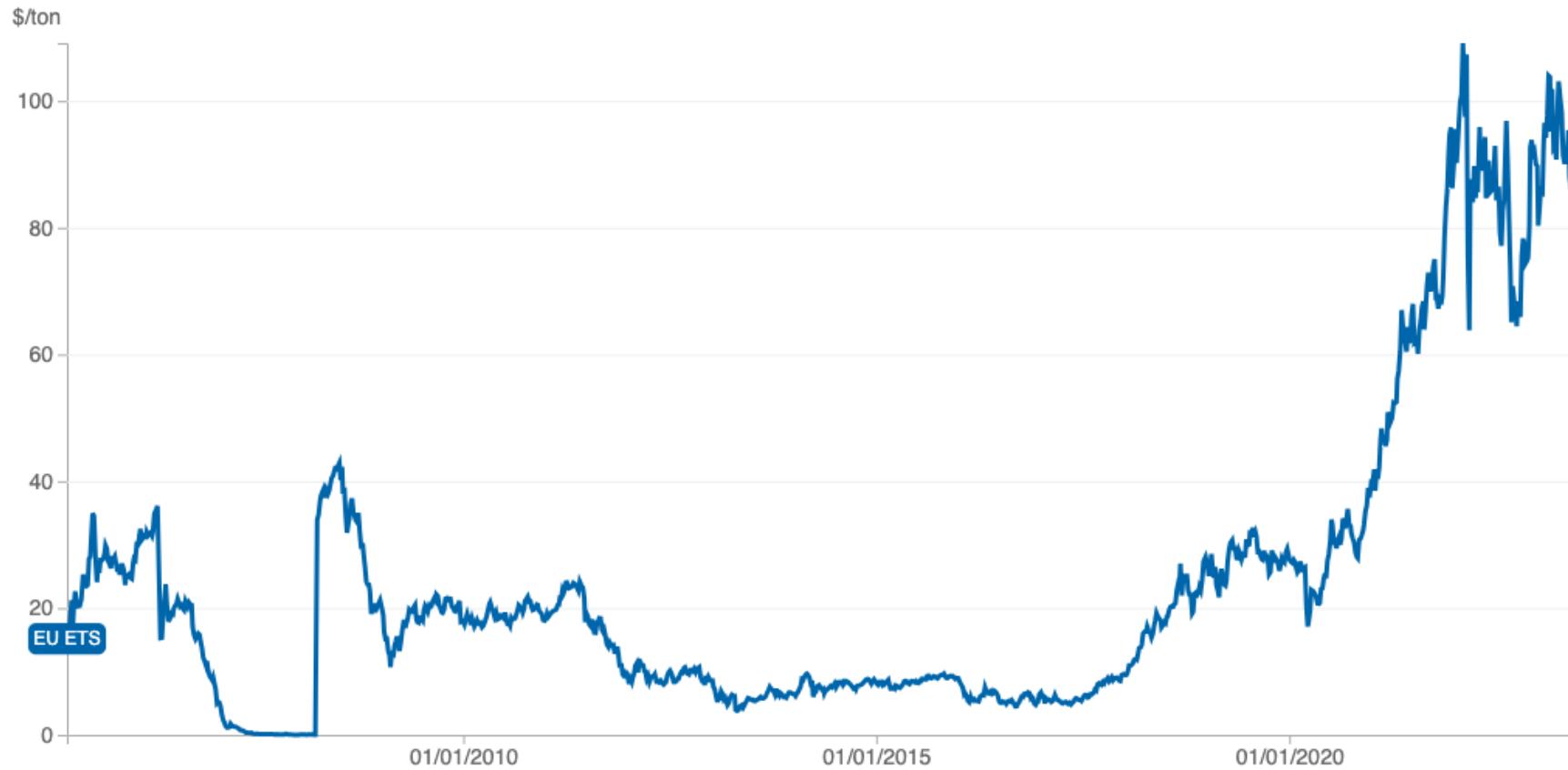
- EU ETS an adult system: 18 years old
- And it keeps growing: extension to new sectors (maritime, buildings and transports) and new gases (methane + nitrous oxide for shipping from 2026 onwards)



The EU ETS price trend



ICAP Allowance Price Explorer



«The EU ETS and its followers»



ICAP Allowance Price Explorer

\$/ton



Carbon vs energy price trends 2016-2023



Carbon vs energy price trends 2019-2022

January 2019=100



The EU ETS: concerns and next challenges

- Distributional effects and social acceptability
- Competitiveness effects and carbon leakage
- LIFE COASE (Collaborative Observatory for ASsessment of the EU ETS)
- Jan 2023 – Dec 2025
- **ETSs:** EU, China, New Zealand, California, Québec and Switzerland

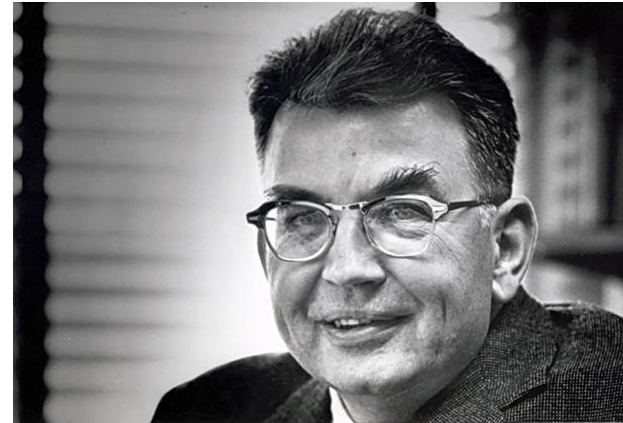


Image Credit: Wikimedia CC BY



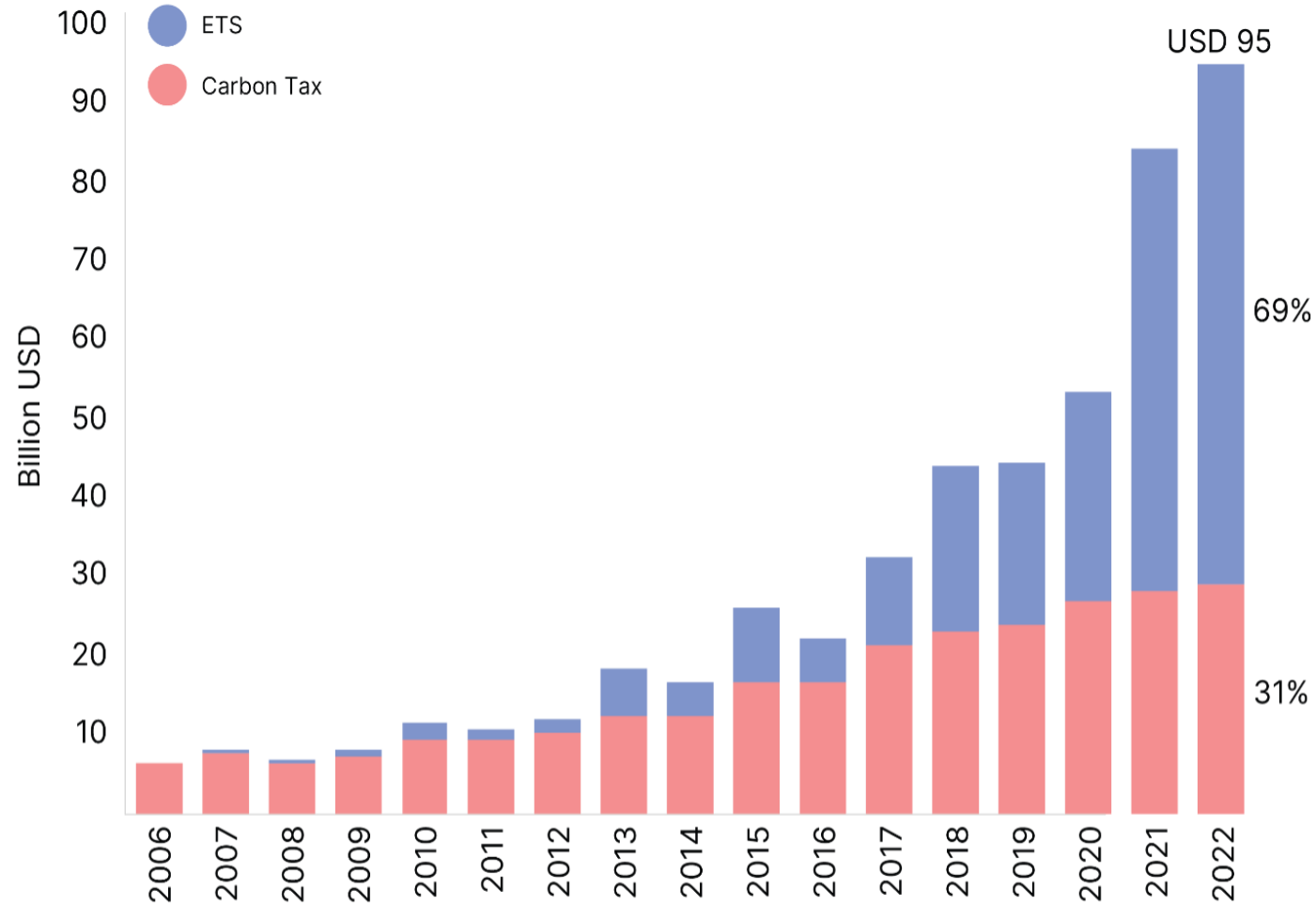
Distribution effects of carbon pricing

- Likely regressive effects since poor households:
 - spend larger income share on carbon-intensive goods
 - face higher financial constraints to adopt low-carbon technologies
 - more likely to suffer job losses in carbon-intensive sectors
- Social acceptability of higher prices
 - Is there a max price level?
 - How can we increase acceptability?
 - Acceptability of the policy depends on how carbon pricing revenues are used (e.g. Carattini et al., 2017).
 - What is the amount of carbon pricing revenues? How are they used? How do they change with carbon pricing?



Global revenues from carbon taxes and ETSs

Source: World Bank's State and Trends of Carbon Pricing 2023 report



Expected EU ETS revenues

- Fuest and Pisani-Ferry (2020): 800-1,500 bln € by 2050

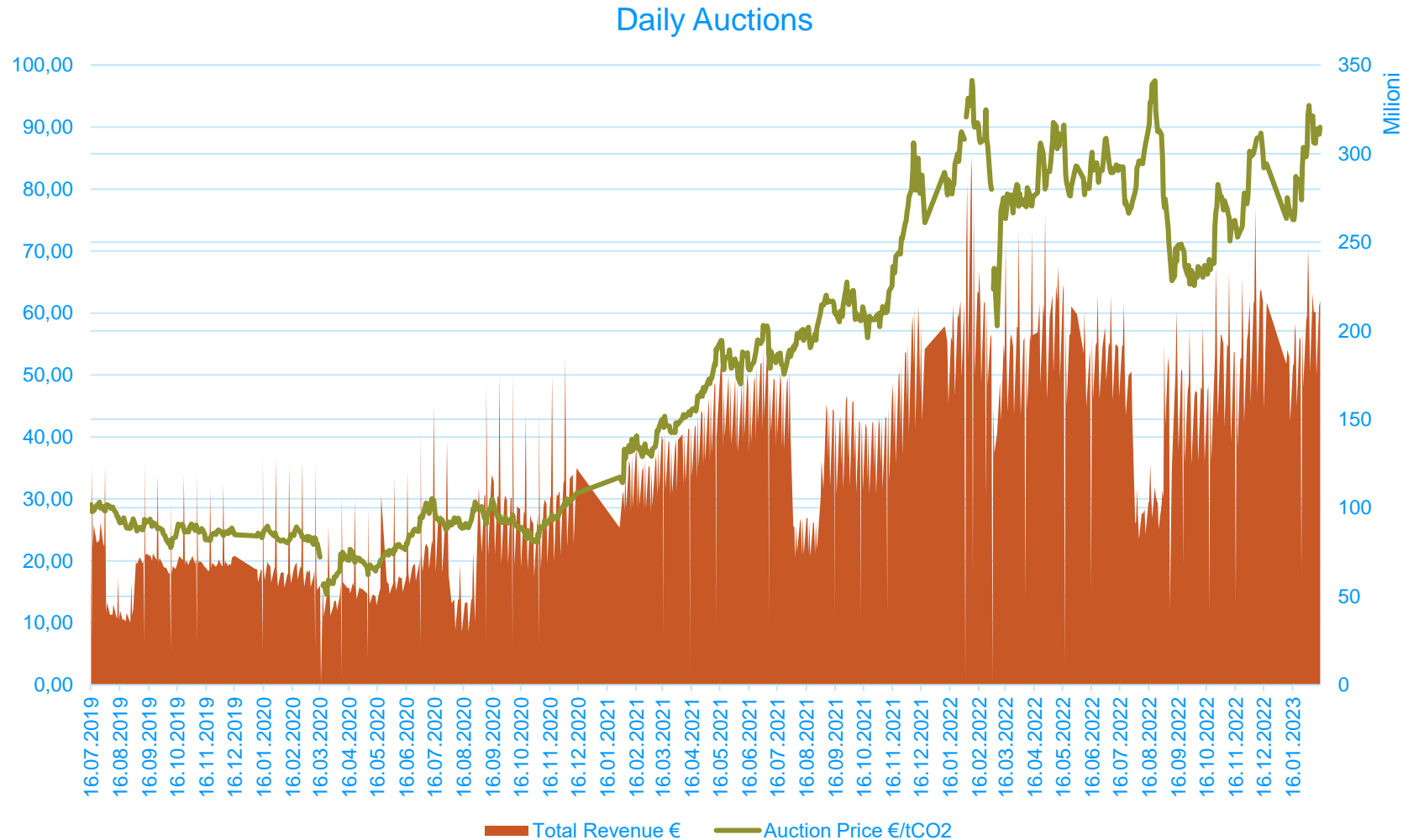
NB: EU's coronavirus aid package: 750 bln €

- Social Climate Fund (to start before ETS2 kicks in): expected 86.7 bln € (65 from auctions+25% from MS) over the period 2026-32
- Auction revenues likely to increase with higher prices

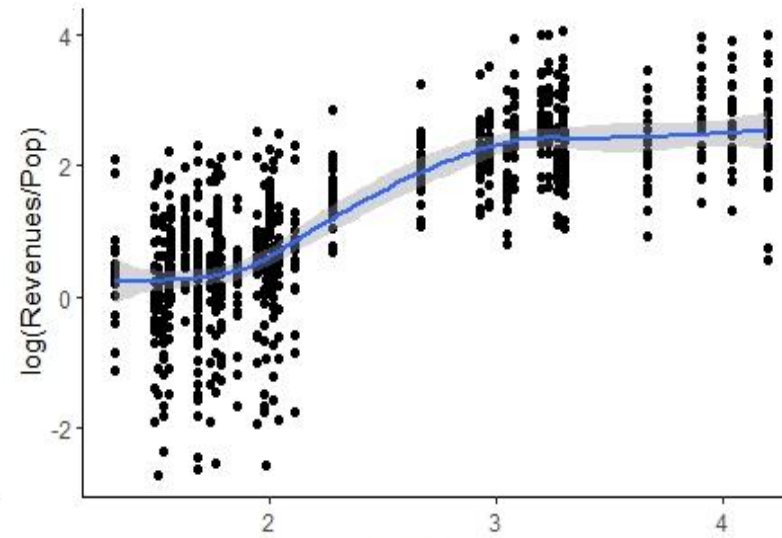
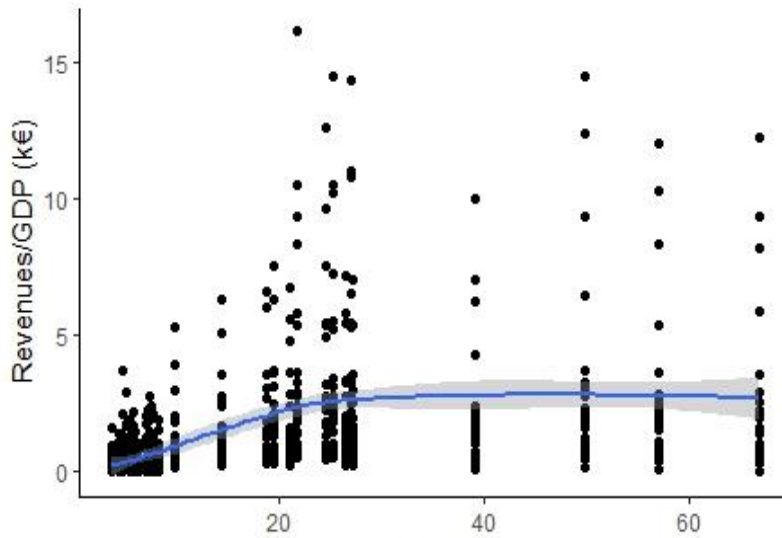
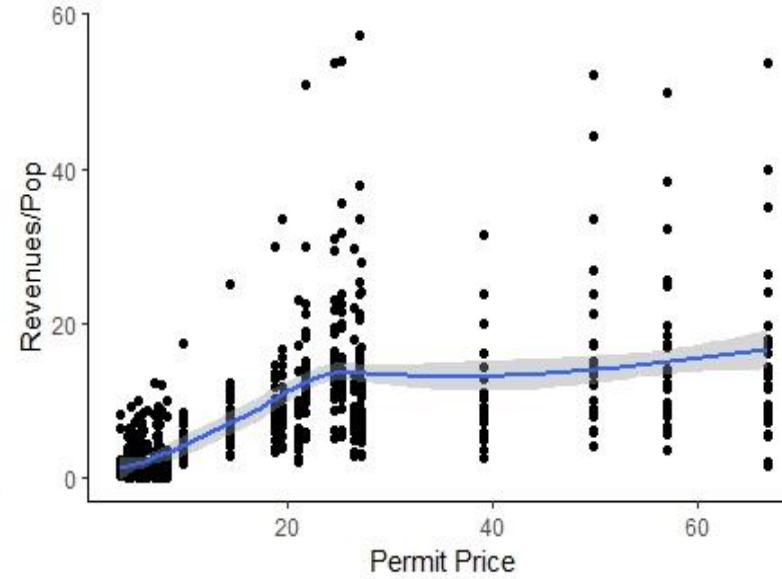
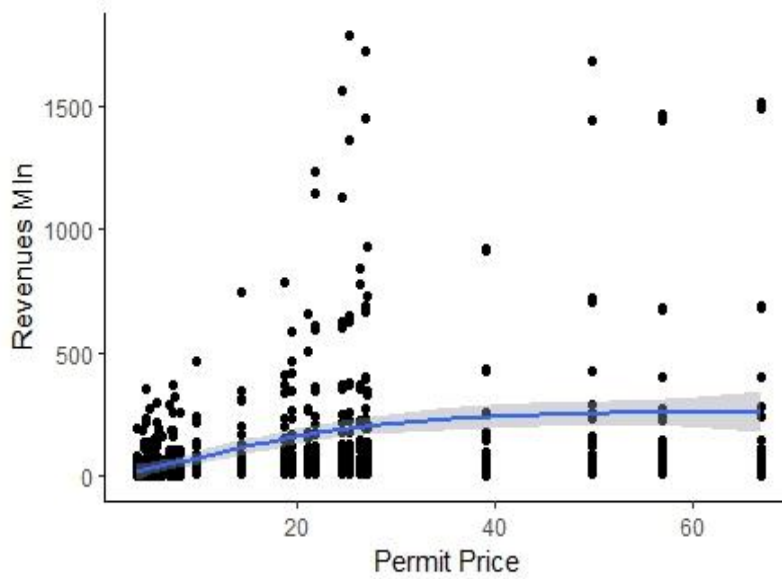


Decoupling price and revenues?

Source: Mazzarano and Borghesi, 2023

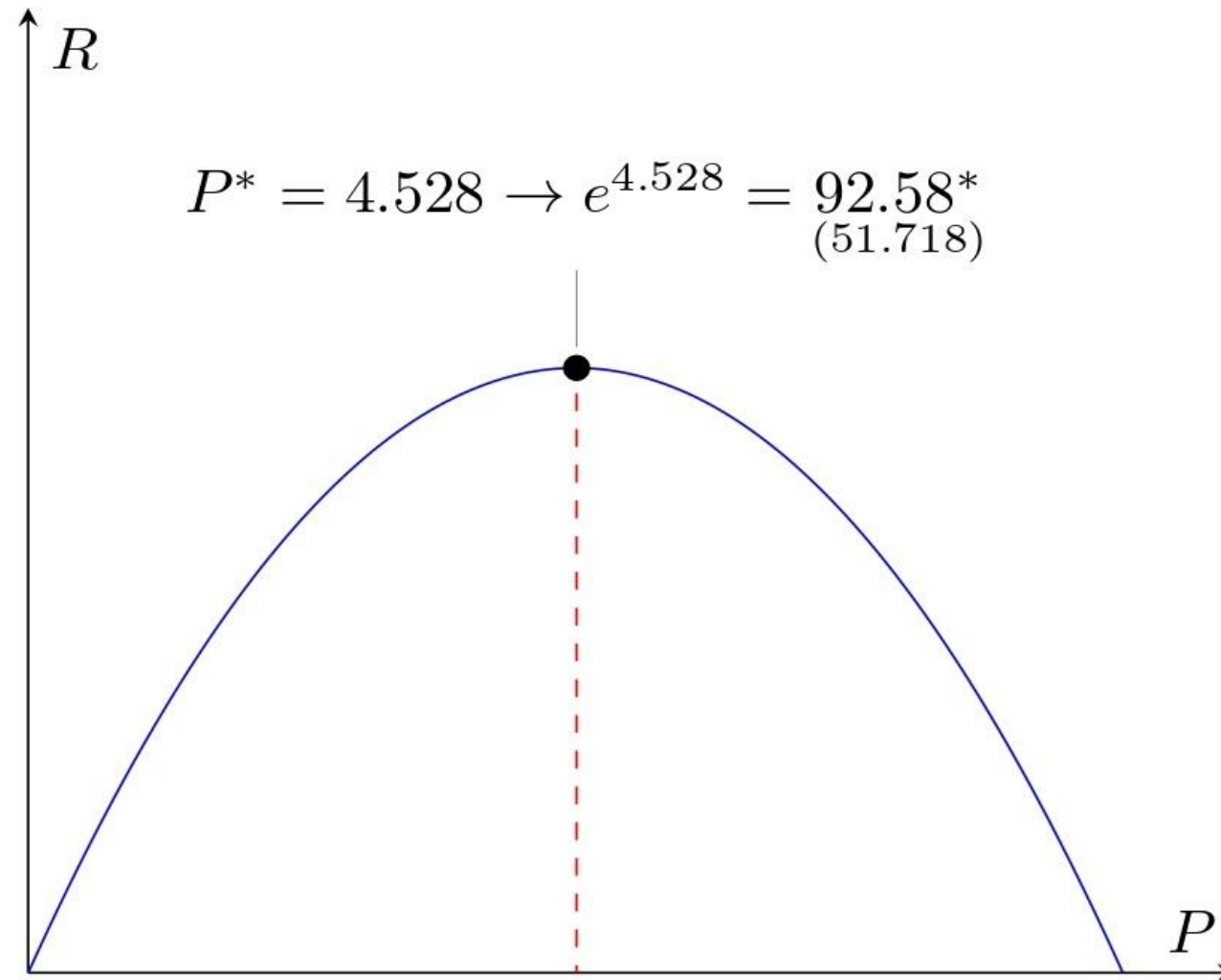


Auction revenues vs prices



The relationship between ETS Revenues and ETS auction prices, different dimension, and variables

Early signs of a Carbon Laffer Curve?



$$\hat{R}_{i,t} = \underset{(1.146)}{1.938} P_t - \underset{(0.116)}{0.214} P_t^2 + \hat{\beta} X_{i,t}$$

Concluding remarks

- Higher carbon prices raise distributional and social acceptability concerns
- Higher carbon prices generate higher revenues to compensate more vulnerable households and sectors

However:

- Revenues might stop growing at high carbon price levels, or even start falling (Carbon Laffer Curve?)
- Auction revenues are not (should not be) the only source for compensation
- Redistribution policies are key for social acceptability of ETS



Thank you!

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