



Global Organisation

- 600+ groups
- 60+ countries
- 1 economic policy

Active at MS and
and EU level



James Collis - Regional Coordinator - Europe

Agenda

- 3 Key policy elements
- How they work together ?
- What makes it effective Theory
- Proven real world examples
- Public/Political support - theory and practise
- “Solve the climate crisis”



“Carbon Pricing **must be the cornerstone** of government actions to tackle climate change”

“Tax and similar pricing instruments have a crucial role to play in this area.”



ipcc

“**Practical experience** helped to improve predictability, environmental effectiveness, economic efficiency, alignment with distributional goals, and social acceptance (**high confidence**).”

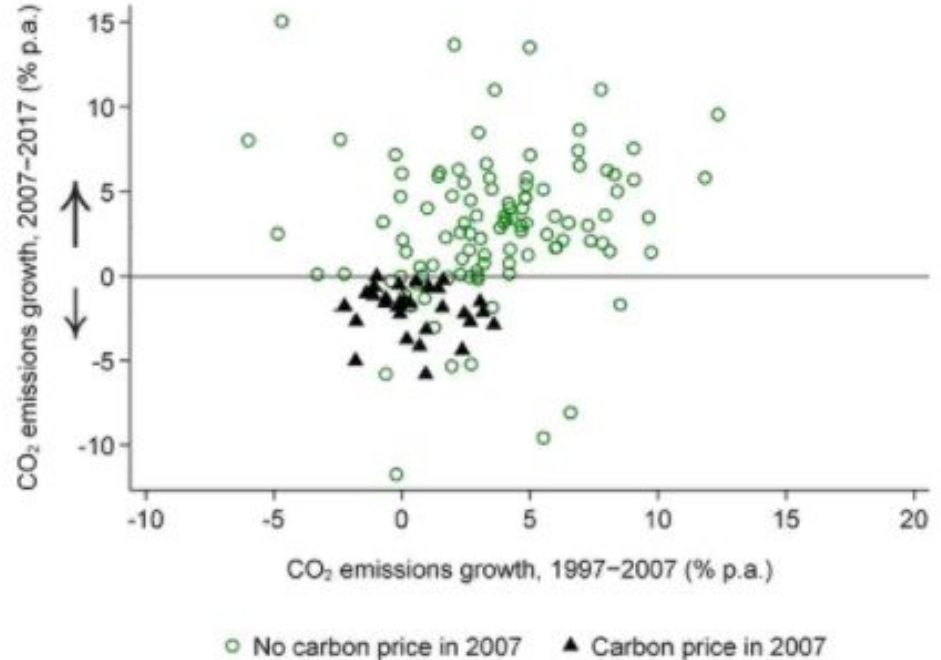
2020 Carbon Pricing

The message to governments is that carbon pricing almost certainly works, and typically to great effect.

While a well-designed approach to reducing emissions would include other [complementary policies](#) such as regulations in some sectors and support for low-carbon research and development, carbon pricing should ideally be the centrepiece of the effort.

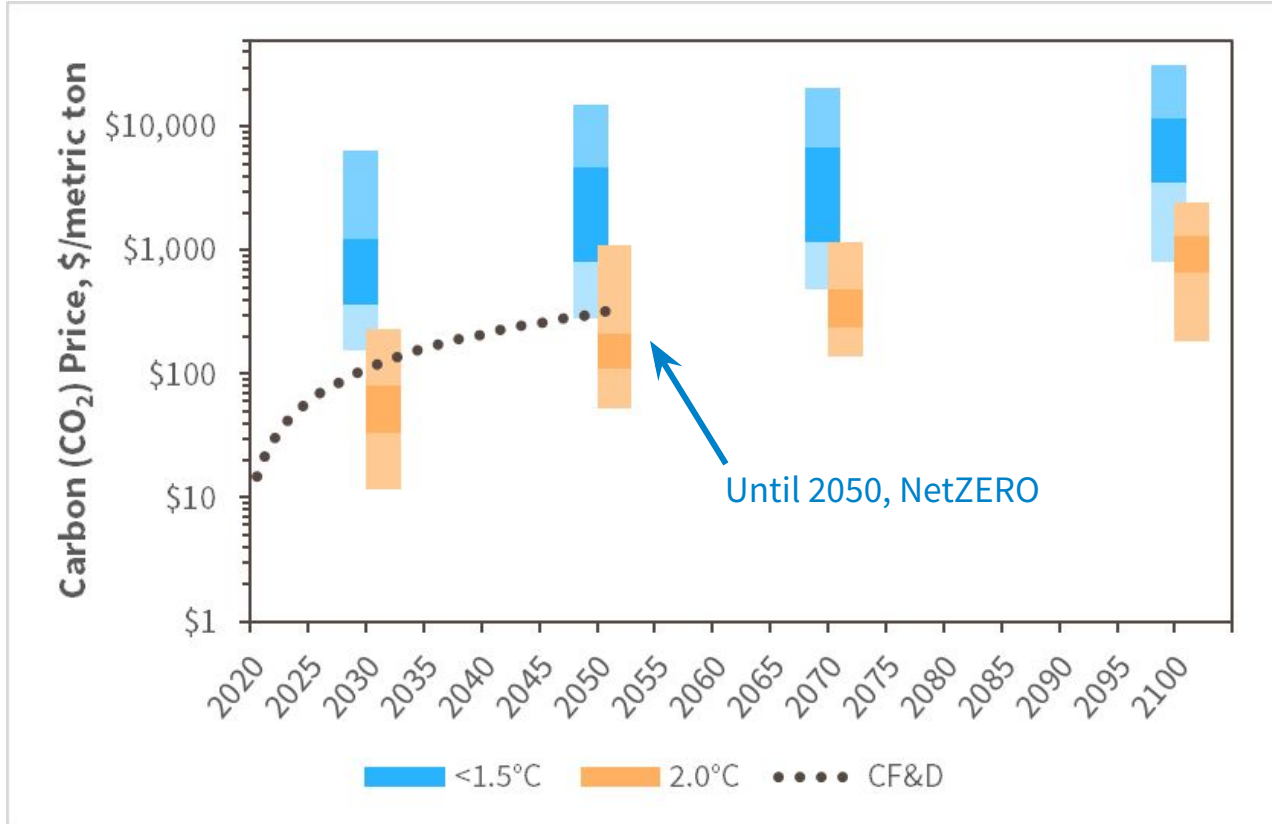


Carbon dioxide emissions growth in countries with and without a carbon price in 2007



Emissions are from fuel combustion and include road-sector emissions. Best, Burke, Jotzo 2020

IPCC Carbon Price Modeling



< 1.5 °C

2.0 °C

...

Carbon price rises
\$10 / ton / year

CCL analysis of data in
IPCC Special Report on
global warming of 1.5 °C

* All prices are in 2020 dollars

International Energy Agency - Net Zero by 2050

Table 2.2 ▶ CO₂ prices for electricity, industry and energy production in the NZE

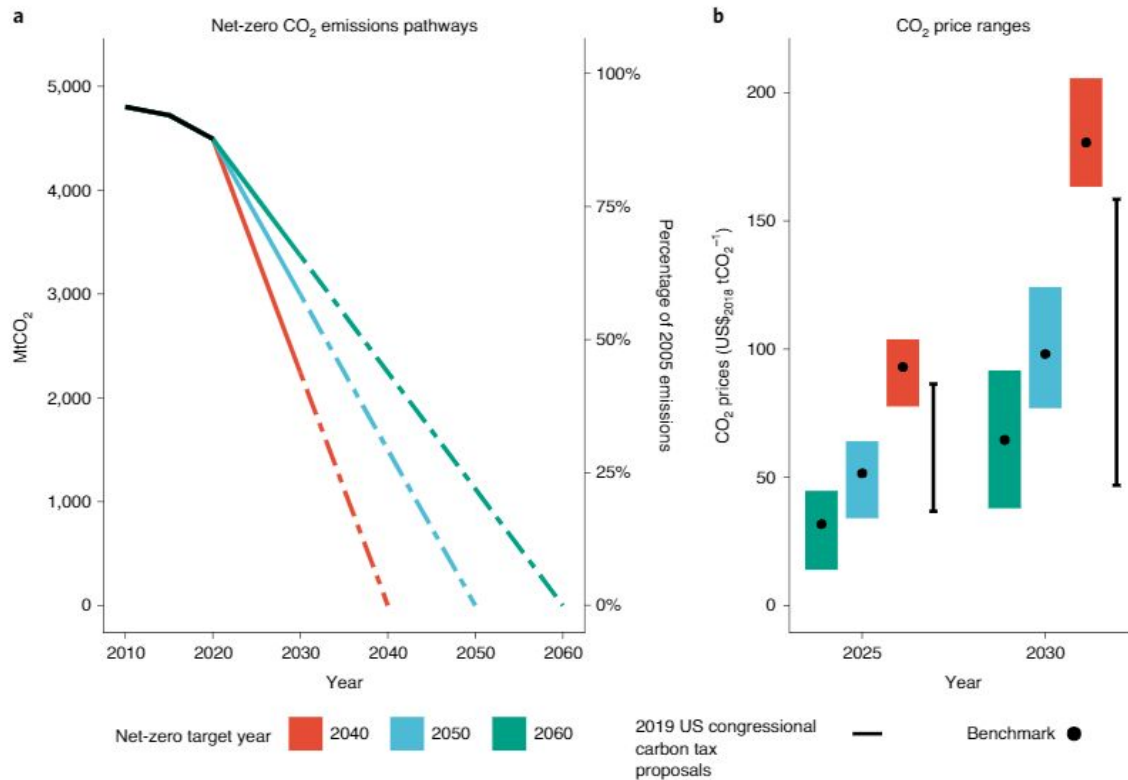
| USD (2019) per tonne of CO ₂ | 2025 | 2030 | 2040 | 2050 |
|--|------|------|------|------|
| Advanced economies | 75 | 130 | 205 | 250 |
| Selected emerging market and developing economies* | 45 | 90 | 160 | 200 |
| Other emerging market and developing economies | 3 | 15 | 35 | 55 |

* Includes China, Russia, Brazil and South Africa.

Columbia SIPA Centre on Global Energy Policy

NATURE CLIMATE CHANGE

ARTICLES



Economist's Statement Jan 2019

ORIGINAL CO-SIGNATORIES INCLUDE:

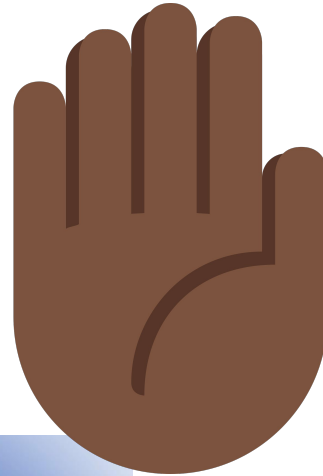
28 Nobel Laureate Economists

4 Former Chairs of the Federal Reserve

15 Former Chairs of the Council of Economic Advisers

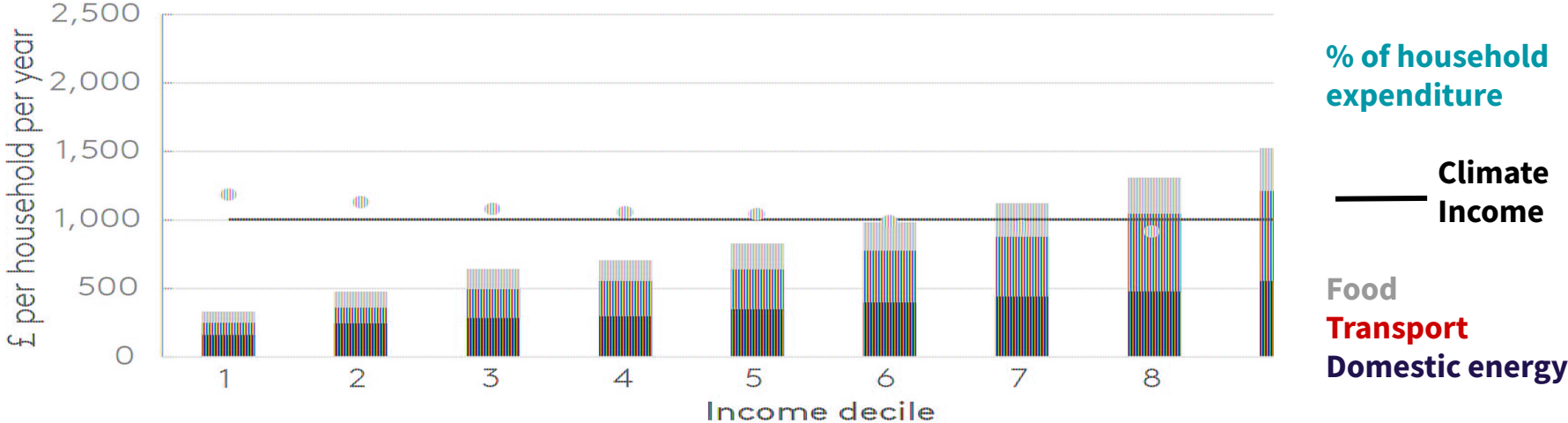
SIGN THE STATEMENT

Questions, thoughts, critiques, insights ... ?



Distributional Impact of Climate Income

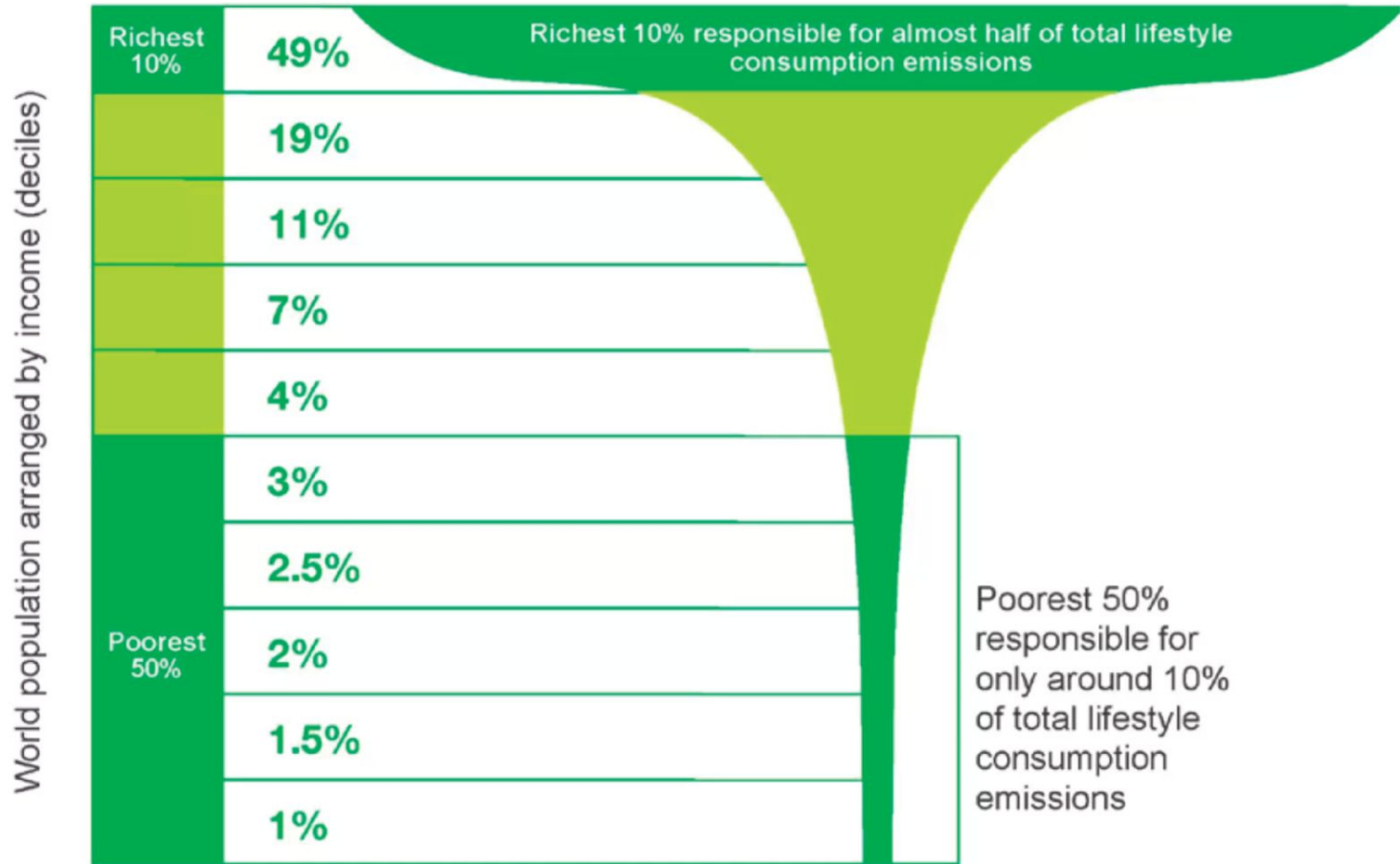
Model for UK, 2019, London School of Economics



Low income households

High income households

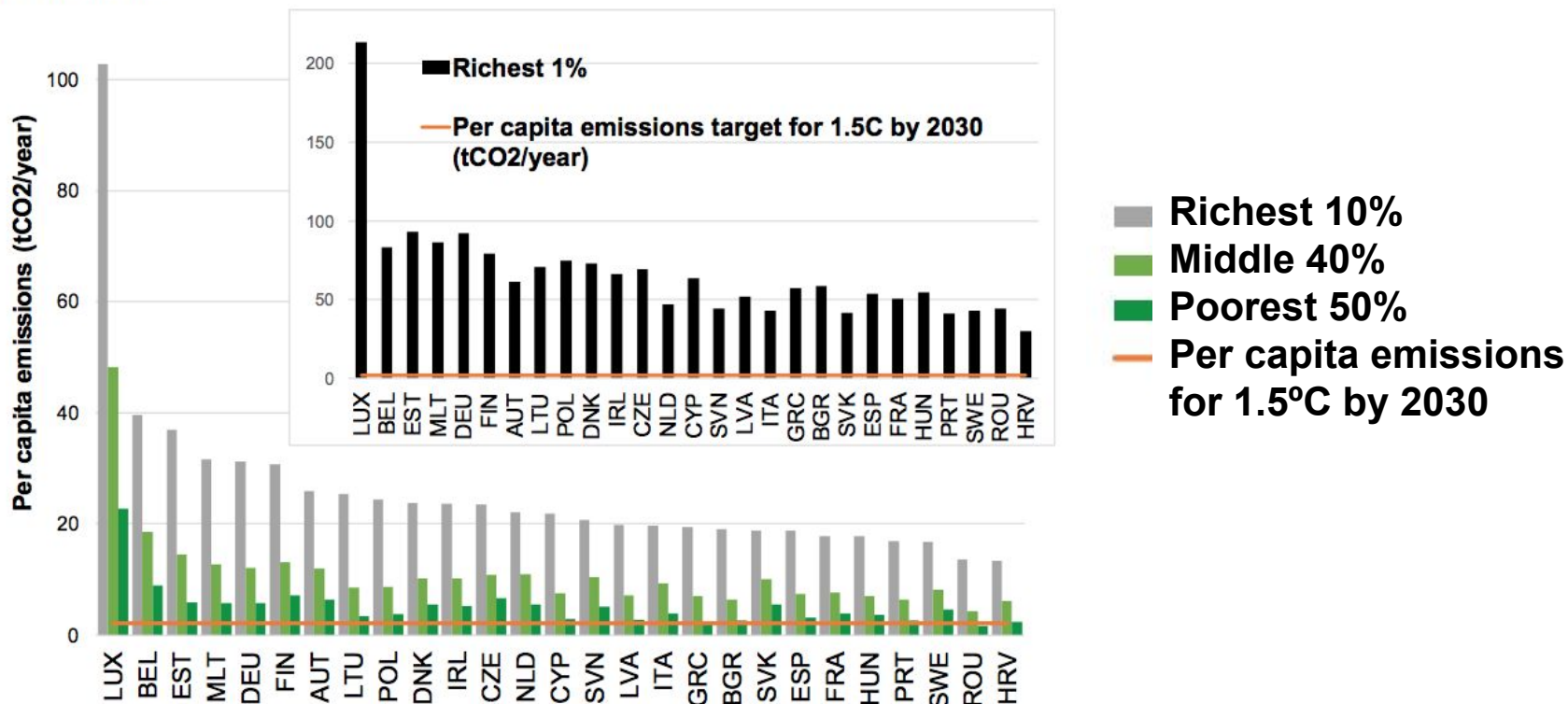
Percentage of CO₂ emissions by world population



Source: Oxfam International (2015)

Oxfam - per capita emissions by member state

Figure 7: Per capita consumption emissions (tCO₂/year) in EU Member States by national income groups²⁵



EU Progressive options (e.g. ETS2; ETD; SCF)




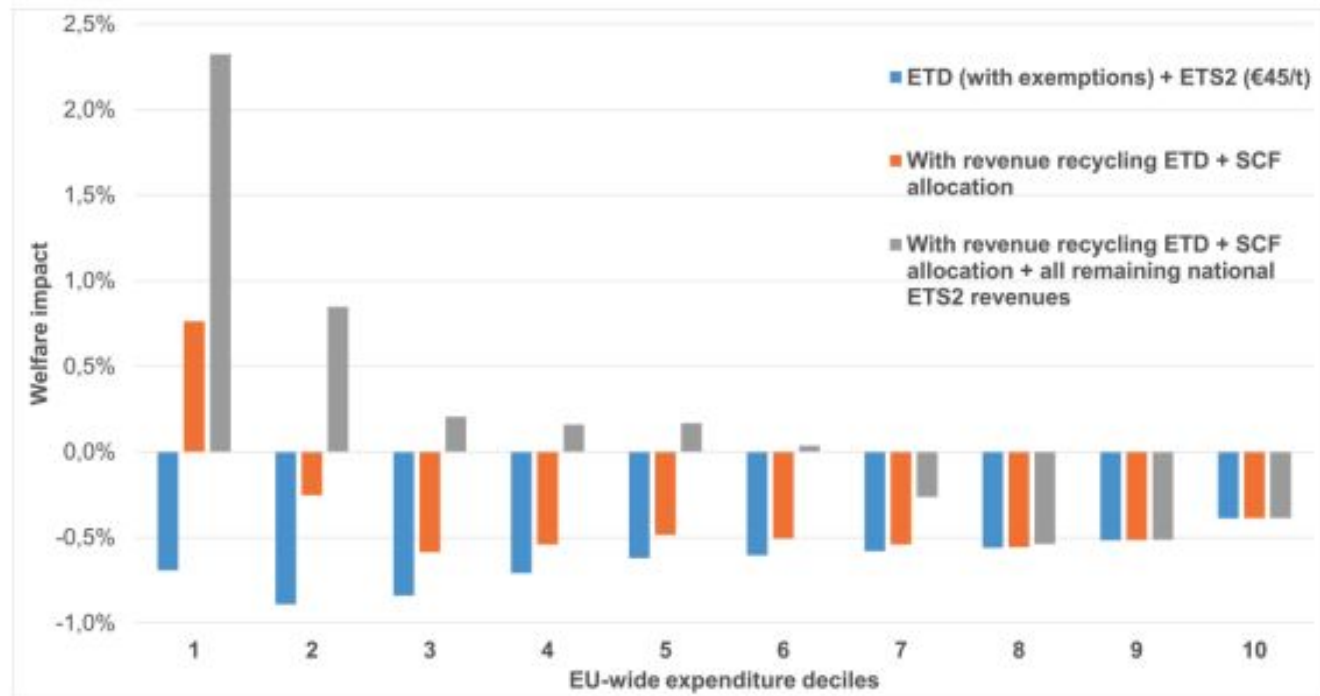
Grey - 
All ETD & ETS2
revenue recycled to
bottom 5 deciles =
progressive

Figure ES1: Welfare impact (% household expenditure) EU-wide from ETD reform and ETS2 without and with revenue recycling options



Climate Income Modelling - Mercator Research Inst

United Kingdom

- Price \$100 (max)
- National price
- 90% rebated
- Equal per household
- Averages data

<https://www.cpic-global.net/>

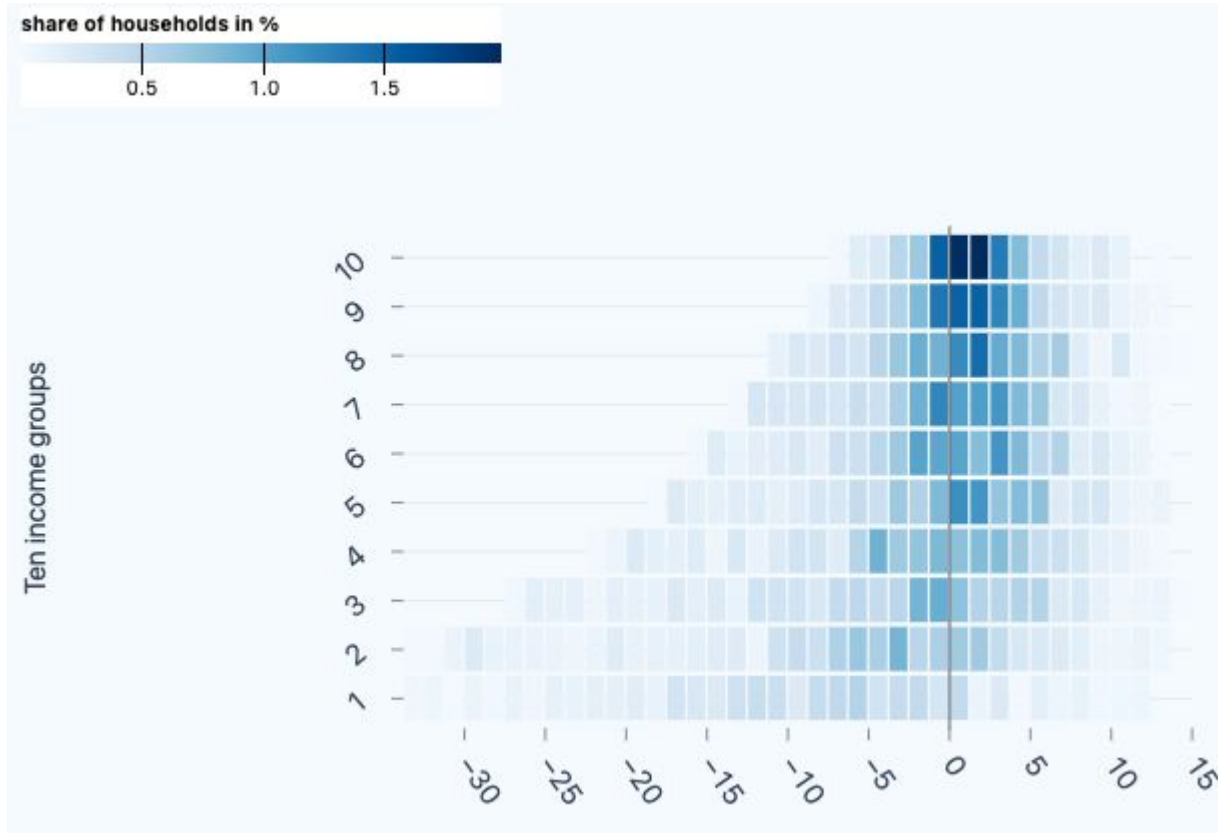


Climate Income Modelling - Mercator Research Inst

United Kingdom

- Price \$100 (max)
- National price
- 90% rebated
- Equal per household
- Box plot data

<https://www.cpic-global.net/>



Questions, thoughts, critiques, insights ... ?

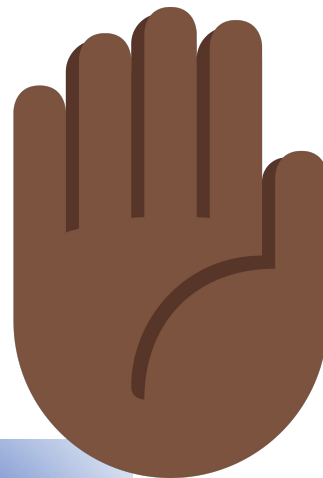


Table A. America's Carbon Efficiency Advantage by Sector vs. BRIC, EU, & USMCA Countries

| | USA | Brazil | Canada | China | EU | India | Mexico | Russia | World |
|---|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Agriculture, forestry and fishing | 1.0 | 1.2 | 1.4 | 1.2 | 1.2 | 0.9 | 1.6 | 1.8 | 1.0 |
| Mining and extraction of energy producing products | 1.0 | 1.1 | 1.6 | 2.2 | 0.9 | 5.9 | 1.5 | 2.2 | 1.3 |
| Mining and quarrying of non-energy producing products | 1.0 | 0.6 | 1.6 | 2.2 | 0.8 | 4.7 | 1.0 | 3.2 | 1.4 |
| Mining support service activities | 1.0 | 1.8 | 1.5 | 5.2 | 1.9 | 2.5 | 1.6 | 4.2 | 1.9 |
| Food products, beverages and tobacco | 1.0 | 1.0 | 1.0 | 1.4 | 0.8 | 1.5 | 0.9 | 1.8 | 1.1 |
| Textiles, wearing apparel, leather and related products | 1.0 | 0.8 | 1.0 | 1.8 | 0.8 | 2.3 | 1.1 | 1.9 | 1.5 |
| Wood and products of wood and cork | 1.0 | 1.0 | 1.3 | 1.8 | 0.9 | 3.7 | 1.7 | 2.9 | 1.4 |
| Paper products and printing | 1.0 | 0.9 | 1.0 | 1.7 | 0.8 | 2.3 | 1.1 | 2.4 | 1.2 |
| Coke and refined petroleum products | 1.0 | 0.9 | 1.3 | 1.6 | 1.3 | 1.8 | 1.9 | 1.7 | 1.3 |
| Chemicals and pharmaceutical products | 1.0 | 0.9 | 1.5 | 2.6 | 0.8 | 2.1 | 1.2 | 5.5 | 1.6 |
| Rubber and plastic products | 1.0 | 0.9 | 1.0 | 2.7 | 0.7 | 2.1 | 1.1 | 2.9 | 2.0 |
| Other non-metallic mineral products | 1.0 | 0.7 | 0.9 | 1.6 | 1.0 | 2.5 | 0.9 | 2.7 | 1.3 |
| Basic metals | 1.0 | 1.3 | 1.0 | 1.8 | 0.9 | 2.7 | 0.7 | 3.7 | 1.5 |
| Fabricated metal products | 1.0 | 1.3 | 0.9 | 3.1 | 0.9 | 6.1 | 1.4 | 4.8 | 1.8 |
| Computer, electronic and optical products | 1.0 | 2.5 | 2.3 | 5.7 | 2.1 | 8.0 | 3.4 | 7.4 | 4.0 |
| Electrical equipment | 1.0 | 1.5 | 1.2 | 3.1 | 1.0 | 3.9 | 1.4 | 4.8 | 2.2 |
| Machinery and equipment | 1.0 | 1.0 | 0.9 | 2.8 | 0.8 | 4.0 | 1.2 | 4.5 | 1.8 |
| Motor vehicles, trailers and semi-trailers | 1.0 | 1.2 | 0.9 | 2.4 | 0.7 | 3.5 | 1.0 | 3.6 | 1.3 |
| Other transport equipment | 1.0 | 1.3 | 0.9 | 2.8 | 0.8 | 3.5 | 1.3 | 3.2 | 1.5 |
| Other manufacturing; repair and installation of machinery and equipment | 1.0 | 1.0 | 1.0 | 2.8 | 0.7 | 4.2 | 1.7 | 4.1 | 1.9 |
| Economy-Wide | 1.0 | 1.1 | 1.3 | 3.2 | 0.9 | 3.8 | 1.4 | 4.2 | 1.8 |

Source: MacroDyn Group calculations based on data from the International Energy Agency, the World Input-Output Database environmental accounts and the Global Trade Analysis Project.

- U.S. Carbon Advantage (foreign competitors less carbon efficient)
- U.S. Carbon Disadvantage (foreign competitors more carbon efficient)
- U.S. Carbon Efficiency or Equivalent

Table B. Country-Level Electricity Profiles

| | USA | Brazil | Canada | China | India | EU | Mexico | Russia | World |
|---|------|--------|--------|-------|-------|------|--------|--------|-------|
| GDP CO2 intensity (Mt CO ₂ /\$M) | 286 | 298 | 382 | 983 | 1,068 | 264 | 311 | 1,213 | 468 |
| Electricity CO2 intensity (Kt CO ₂ /GWh) | 0.45 | 0.13 | 0.14 | 0.7 | 0.71 | 0.36 | 0.45 | 0.66 | 0.62 |

Source: MacroDyn Group calculations based on data from the International Energy Agency, the World Input-Output Database environmental accounts and the Global Trade Analysis Project.

- U.S. Carbon Advantage (foreign competitors more carbon intensive)
- U.S. Carbon Disadvantage (foreign competitors less carbon intensive)
- U.S. Carbon Intensity or Equivalent

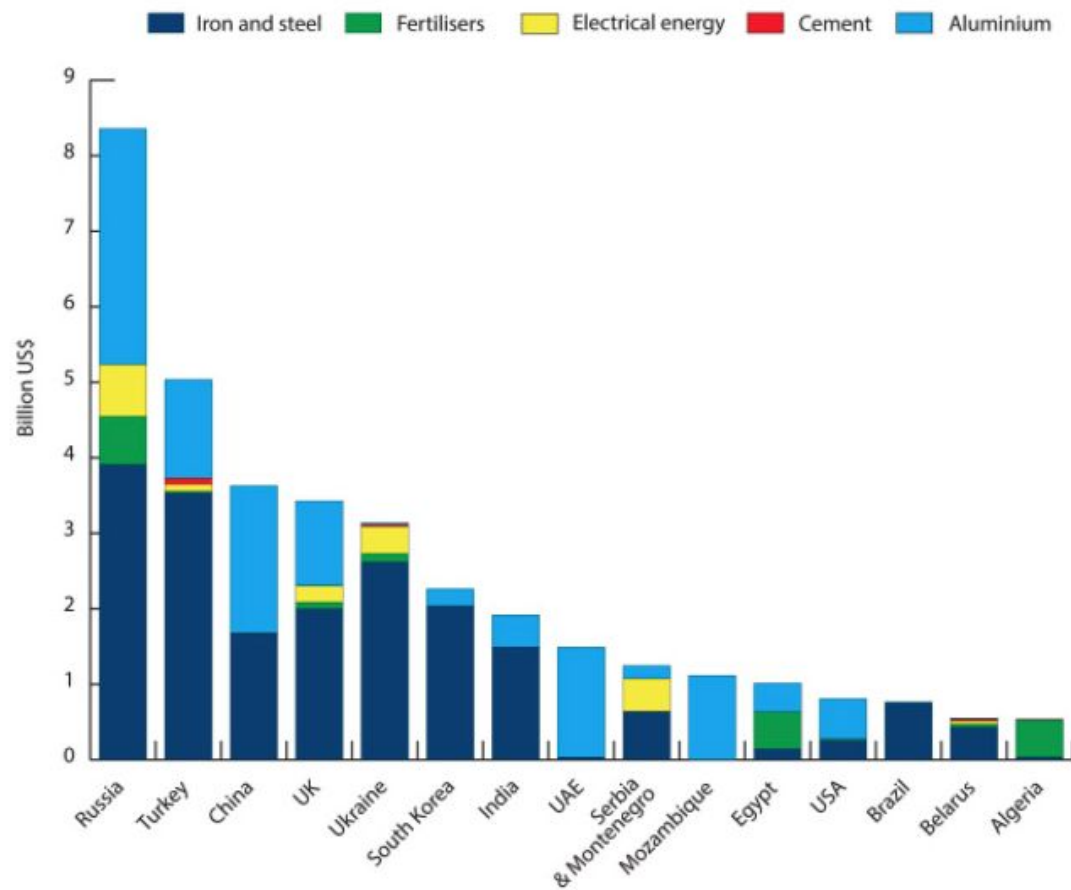
Table C. America's Carbon Efficiency Advantage vs. Top Trading Partners

| Largest U.S. Import Sources | | | Largest U.S. Export Destinations | | |
|-----------------------------|--------------------|------------|----------------------------------|--------------------|------------|
| Country | U.S. Imports Share | Index | Country | U.S. Exports Share | Index |
| China | 19% | 3.2 | Canada | 14% | 1.3 |
| Canada | 12% | 1.3 | China | 12% | 3.2 |
| Mexico | 10% | 1.4 | Mexico | 10% | 1.4 |
| Germany | 5% | 0.9 | Japan | 5% | 1.1 |
| Japan | 5% | 1.1 | United Kingdom | 4% | 0.6 |
| United Kingdom | 4% | 0.6 | Germany | 4% | 0.9 |
| India | 4% | 3.8 | Korea | 3% | 1.8 |
| Korea | 3% | 1.8 | France | 3% | 0.6 |
| France | 2% | 0.6 | Brazil | 3% | 1.1 |
| Italy | 2% | 0.9 | Ireland | 2% | 0.6 |
| World | 100% | 1.8 | World | 100% | 1.8 |

Source: MacroDyn Group calculations based on data from the International Energy Agency, the World Input-Output Database environmental accounts and the Global Trade Analysis Project.

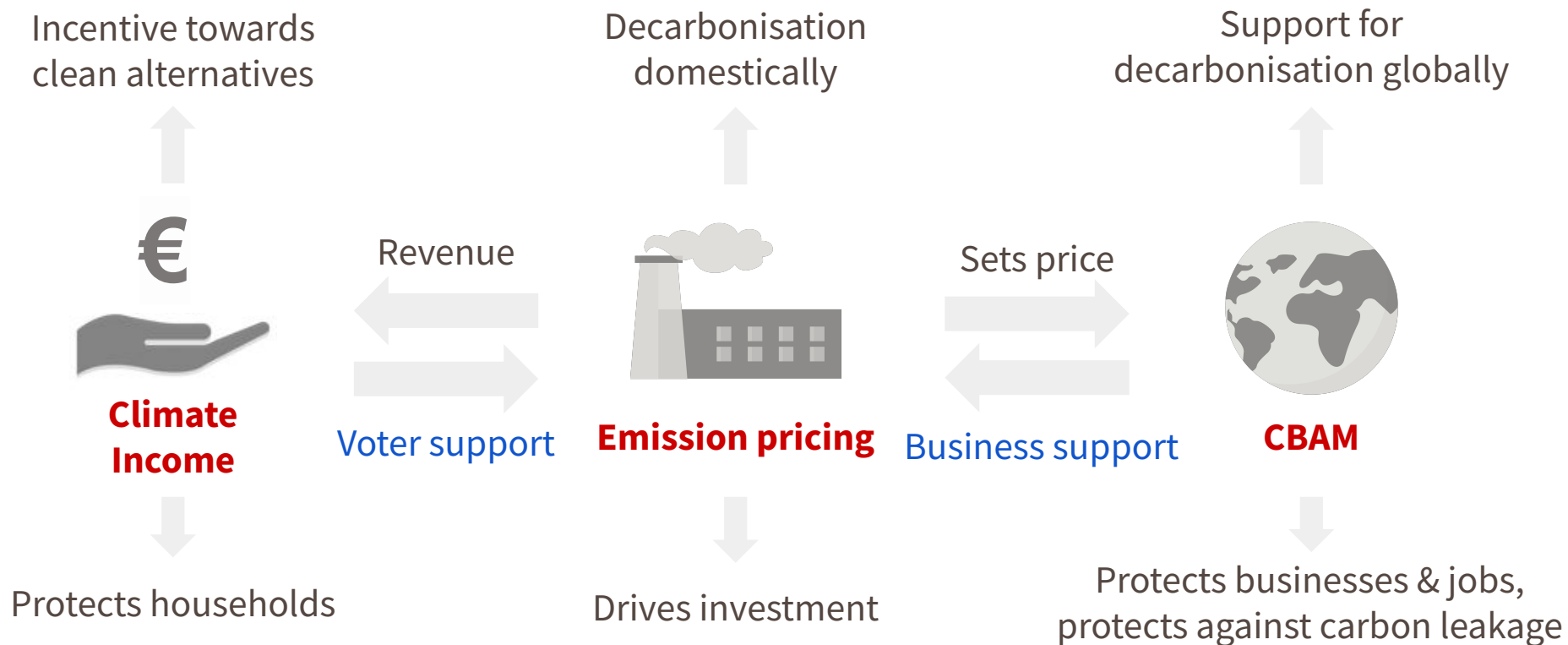
- U.S. Carbon Advantage (foreign competitors less carbon efficient)
- U.S. Carbon Disadvantage (foreign competitors more carbon efficient)

Chart 1: EU imports of products covered by proposed CBAM regulation from 15 most exposed countries, 2019

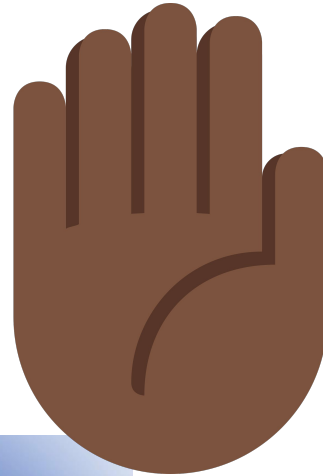


Value of goods affected by the EU CBAM, by country and sector in 2019, billions of euros. Source: Centre for European Reform.

Carbon pricing policy essentials



Questions, thoughts, critiques, insights ... ?



Levers of Political Will - How

- Lobbying
- Media
- GrassRoots
- GrassTops
- Group and volunteer development

Core Values - What we believe in



Focus



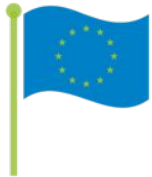
Optimism



Relationships



Integrity



Non-partisan



Personal Power



Diversity

Motivational Interviewing

- Active Listening (reflection)
- Open Questions
- Avoid argument
- Genuine understanding (curiosity)
- Permission to share

OECD FASTER principles for effective Carbon pricing

F

A

S

T

E

R

* ALL = Industry, Business, Public Sector, Families & Individuals

OECD FASTER principles for effective Carbon pricing ?

| | | |
|----------|-------------------------|--|
| F | Fair | Polluter Pays Protect Vulnerable |
| A | Aligned | No other policy against E.g. public transport, fossil fuel subsidy, |
| S | Stable & Predictable | Clear strong signal ALL* Stronger with time |
| T | Transparent | Clear design for ALL* Monitor & verify |
| E | Efficient & Effective | Fiscal encouragement ALL* Decisions devolved |
| R | Reliability & Integrity | Comprehensive coverage Minimal exceptions |

* ALL = Industry, Business, Public Sector, Families & Individuals

OECD Faster principles scorecard

| | ETS1 | ETS2 | France | Austria | Switzerland | Canada | Nordics | EU in 2034 | MS option |
|-------------------------|------|------|--------|---------|-------------|--------|---------|------------|-----------|
| Fair | | | | | | | | | |
| Aligned | | | | | | | | | |
| Stable & Predictable | | | | | | | | | |
| Transparent | | | | | | | | | |
| Efficient & Effective | | | | | | | | | |
| Reliability & Integrity | | | | | | | | | |

Carbon Pricing Dashboard

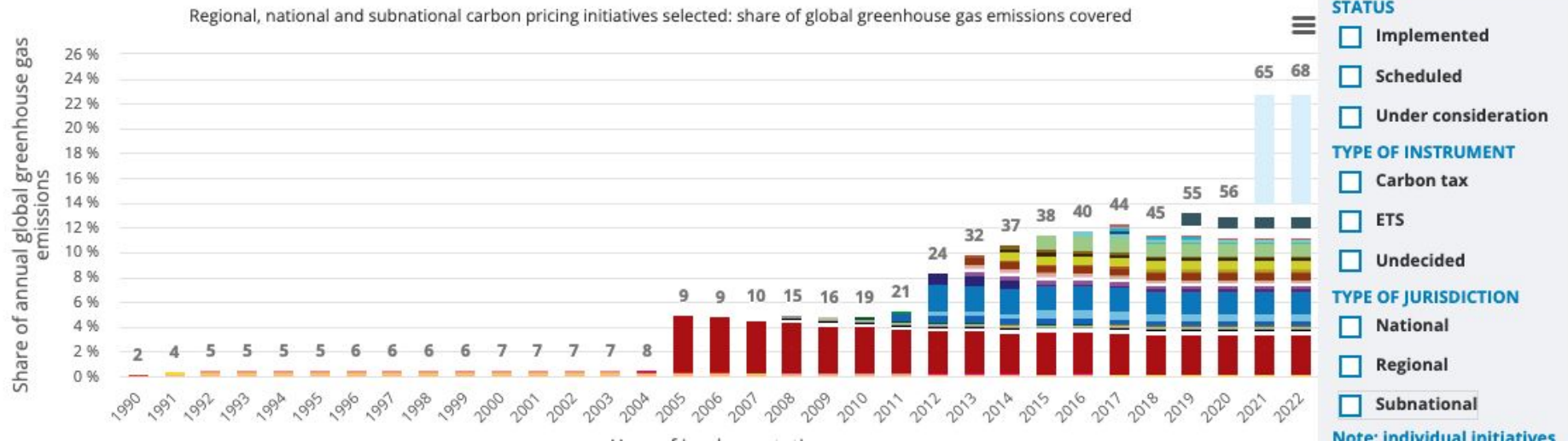
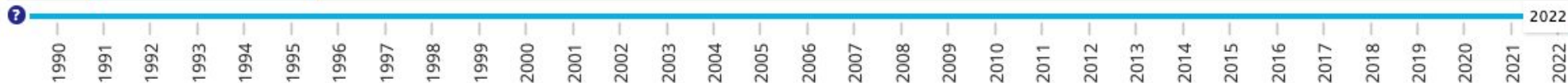
[HOME](#)[ABOUT](#)[ETS & CARBON TAXES](#)[CARBON CREDITING](#)[WHAT IS CARBON PRICING?](#)[RESOURCES](#)

Map & Data

Displaying **Map** for the YEAR **2022**, for multiple STATUSES, for multiple INSTRUMENTS, for multiple JURISDICTIONS

MAP **GHG EMISSION COVERAGE** PRICE REVENUE

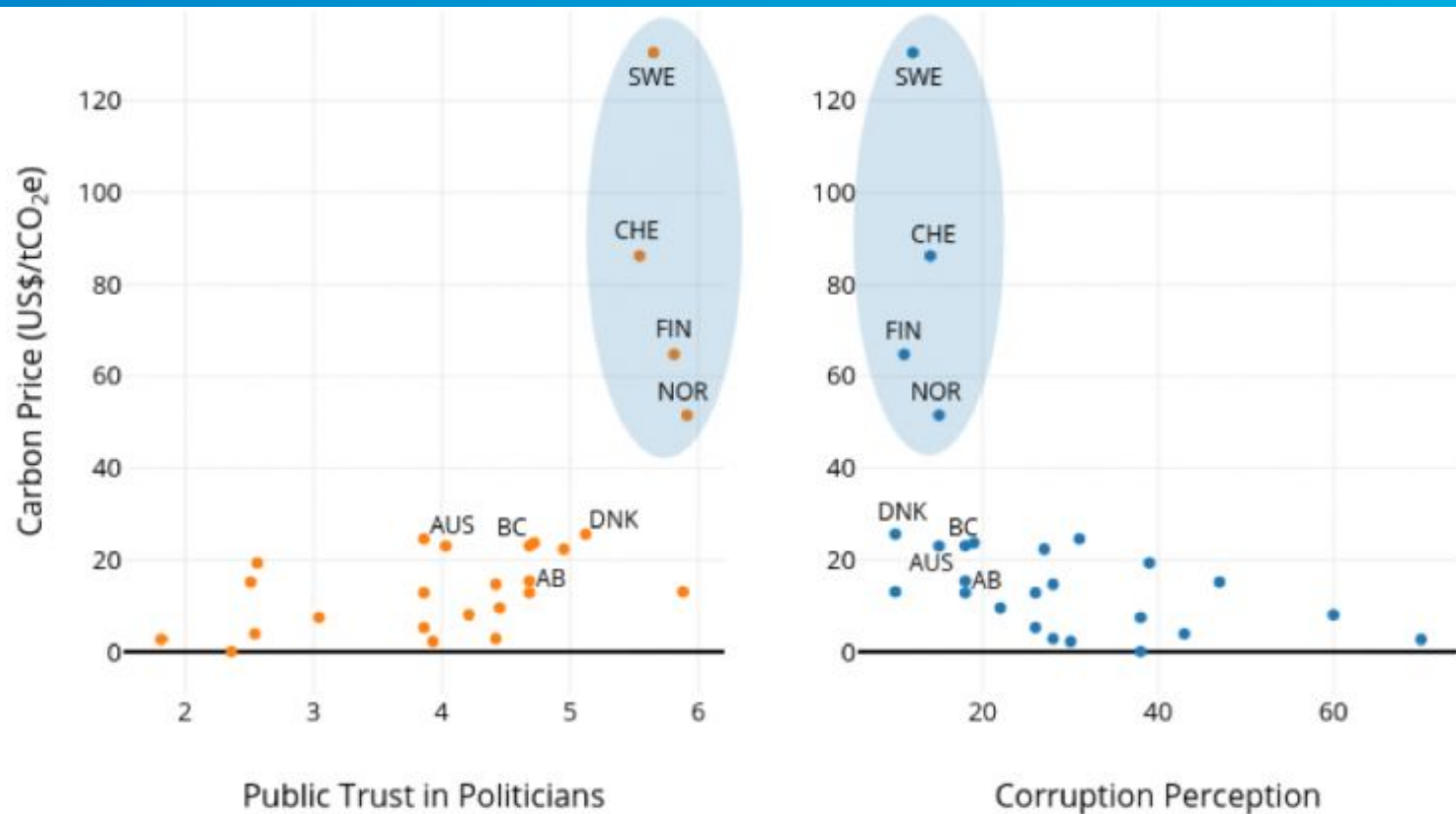
DOWNLOAD GRAPH  DOWNLOAD



ETS2 like - high trust and welfare examples

| Country | Finland | Sweden | Norway | Denmark | Ireland |
|---------------------------|---------|--------|-----------|-----------------------|-----------------------|
| Start date | 1990 | 1991 | 1991 | 1992 | 2010 |
| Price in 2022 | €53-77 | €110 | €70 | ~€20 | €48 |
| Price path | | | 2030 €182 | 2025 €47 2030 €100 | 2030 €100 |
| Households rebated | | | | | Gov Social protection |
| € per year (% of revenue) | | | | | € ringfenced (100%) |
| Public Support | | | | | progressive ? |

Reality: Political trust increases MS pricing options



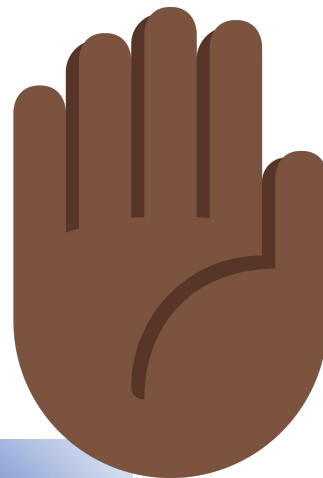
ETS2 like - rebated examples

| Country | France | Switzerland | Canada | Austria | Germany |
|---------------------------|-------------------|------------------------------|------------------------------|-----------------------------|-------------------------------|
| Start date | 2014 | 2008 | 2019 Federal | July 2022 | 2021 |
| Price in 2022 | €44 | €120 | €37 | €35 | €30 |
| Price path | frozen | (€190 failed) | €125 (2030) | €55 (2025) | €40 (2024) |
| Households rebated | Poorest 20% | 100% | 100% | 100% | Poorest OR 100% ??? |
| € per year (% of revenue) | €76 - €277 | €343 (66%) | €550 - €900 (90%) | €500 - €1500 (> 100%) | Klimageld ? |
| Public Support | gilet jaunes 2018 | Not well known (transparent) | Gov re-elected 66% vote 2021 | Klima Ticket Klima Bonus | €9 & €49 travel cards popular |

ETS2 like - lower ambition

| Country | Iceland | Slovenia | UK | Portugal | Luxem- bourg |
|------------------------------|----------------------|----------|---------------------|--------------------|-----------------|
| Start date | 2010 | 1996 | 2013 | 2015 | 2021 |
| Price in 2022 | €29 | €17 | ETS1 €27 | €24 | €25-39 |
| Price path | increase for NECP | frozen | frozen till 2024 | recently frozen | 2023 €30 |
| Households rebated | | | | | |
| € per year (% of revenue) | | | | | |
| Public Support | | | | | |

Questions, thoughts, critiques, insights ... ?



Public support for climate policy ...

40,000 respondents; 20 countries; 72% of global CO2 emissions.

Support for climate policies hinges on three key perceptions:

1. Effectiveness (does it work)
2. Fairness (inequality)
3. household self-interest



Conversely, rich people will tend to lose.



Political Concerns

Price volatility

Public support

Cost of Living

E.g. Starting in 2025 at €50 and rising €10 p.a.
Rebating 90% revenue to 100% households

Price volatility

Price predictability = Less emissions

=> NECP, RED, ESR, EED, health, ...

Public support

Rebates = fairness, reward/incentive

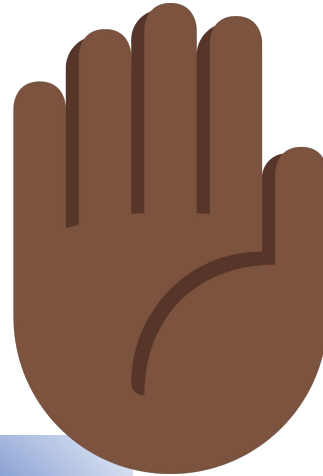
Price scalability

Cost of Living

Especially the poorest, middle incomes

+ jobs & growth

Questions, thoughts, critiques, insights ... ?



CCL Europe - special characteristics

- 27x jurisdictions, languages, cultures
- World leading on environmental legislation
 - **especially carbon pricing**
- 1 of 3 dominant global economies



Where are we with the European Green Deal?

Where are we with Fit for 55?

The screenshot shows the 'Legislative Train Schedule' website for the European Parliament. The page features a navigation menu with 'Schedule', 'Packages', 'In the spotlight', 'Search', 'About', and 'Contact'. Below the navigation is a search bar and a decorative banner with a cityscape and a train icon. The main content area includes filters for 'EC Priorities' (6) and 'EP Committees' (19). A table is displayed with the following data:

| Commission | Departure | | On | | Expected | | Arrivals | | Derailed |
|-------------------------|-----------|------------|----------|------|----------|---------|----------|--|----------|
| | Demands | Departures | Departed | hold | Arrivals | Arrived | | | |
| 1 A EUROPEAN GREEN DEAL | 1 | 56 | 35 | 2 | 3 | 29 | 4 | | |

The table row for '1 A EUROPEAN GREEN DEAL' is circled in red. The table also includes information icons and an email icon to the left of the data row.





Parlamentum Europaeum



Europäische
Kommission



Trilogue



EU Green Deal Important components

ETS - Energy Trading System

CBAM - Carbon Border Adjustment Mechanism

SCF - Social Climate Fund

- - -

ETD - Energy Taxation Directive

EED - Energy Efficiency Directive

RED - Renewable Energy Directive

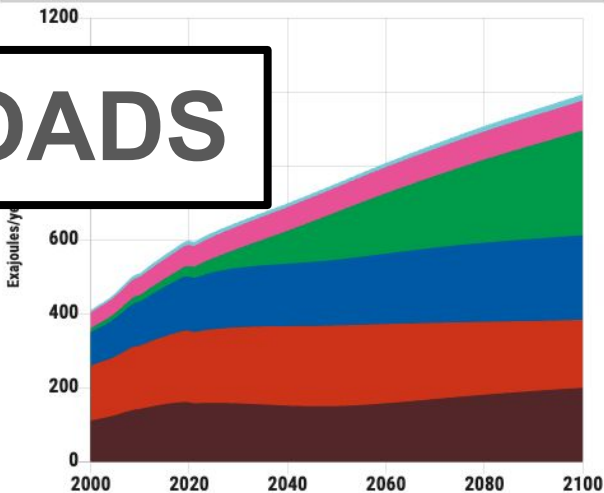
ESR - Effort Sharing Regulation

+ LULUCF; RePowerEU; MSR; CEEAG and >100 more ...

ETS - Emissions Trading System

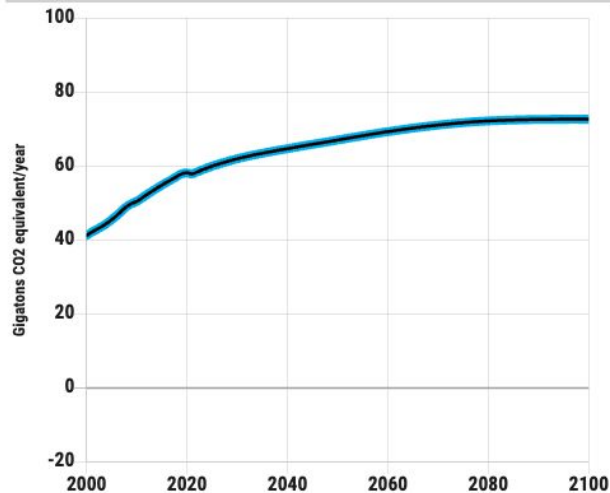


Global Sources of Primary Energy



COAL OIL GAS RENEWABLES BIOENERGY NUCLEAR NEW ZERO

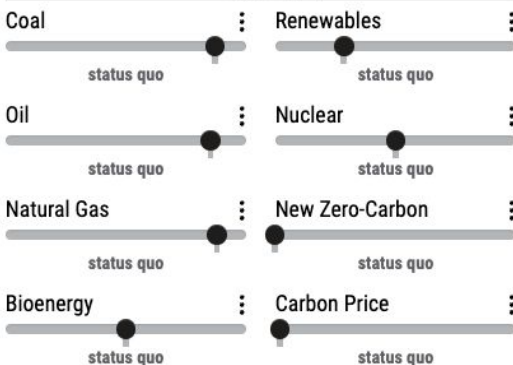
Greenhouse Gas Net Emissions



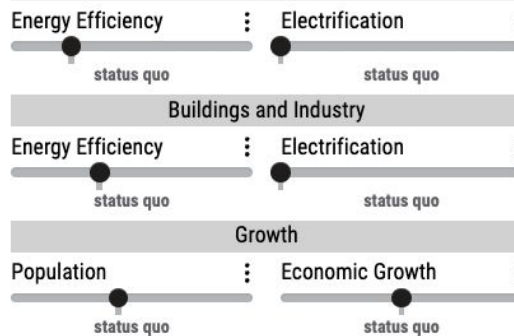
BASELINE CURRENT SCENARIO

+3.3°C
+6.0°F
Temperature Increase by 2100

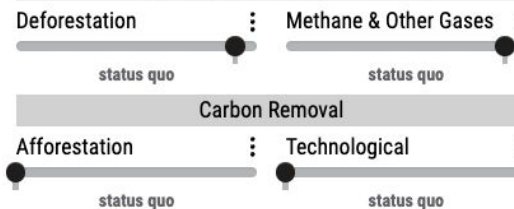
Energy Supply



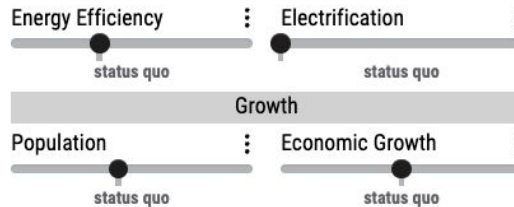
Transport



Land, Food, and Industry Emissions



Buildings and Industry



Growth




En-ROADS

Policy Workshop

12 hours over 3 days

- Essential policy decisions
- Implications - OECD FASTER
- Build consensus and understanding

A black and white photograph of a street scene. A utility pole in the foreground is wrapped in a black banner with white text. The text is a protest message about climate change. In the background, a person is walking away on a sidewalk, and a bicycle is parked on the left. A sign with the letter 'E' is visible on a building in the background.

**We're all screwed
So don't tell us that
We can imagine a healthy planet
Because at the end of the day
It's too late to fix the climate crisis
And we refuse to believe
We need to demand a liveable future
Because we don't have a choice**

Now read this bottom up