MEASURING CARBON PRICING – OVERVIEW OF RELEVANT OECD WORK

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More ambitious actions are needed to be on track to net-zero

- A price floor of 60 EUR would clearly help but would still leave considerable distance to target
- In the transition to net zero countries will proceed at different speed and using different policies
- The diversity of mitigation policy approaches makes it difficult to compare their effectiveness and incidence
- Concerns over competitiveness and carbon leakage remain
- How to ensure that the level of ambitions in individual jurisdictions can be lifted

The climate challenge
Global CO$_2$ emissions, gigatonnes

Source: IEA, 2021
Note: Limiting warming to 1.5°C requires -45% GHG emissions by 2030 compared to 2010.
Towards a dialogue on climate policies

• The OECD proposes an **Inclusive Forum on Carbon Mitigation Approaches** to:
  – Improve global understanding and comparability of policy effectiveness
  – Allow climate policy performance and commitments to be better assessed
  – Inform global dialogue and decision-making on best practices
  – Help driving greater climate ambition globally avoiding negative cross border spillovers

• The **Forum** will support more ambitious climate policy by:
  – Creating inventories of climate policies (price and non-price)
  – Measuring how climate policies compare and meet emission reductions commitments
### Benchmarking and assessing policies

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<th>1. Stocktaking and mapping of policies</th>
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<tr>
<td>- Inventories of countries’ price-based and non-price-based climate mitigation policies</td>
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<td>- A basic taxonomy common across countries</td>
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<td>- Considering also non-mitigation policies with significant effects on emissions</td>
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<th>2. Estimating impacts on emissions</th>
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<td>- Assess the effectiveness of price and non-price-based policies in reducing emissions</td>
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<td>- Country and industry/sector-specific estimates of emission reductions</td>
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<th>3. Comparability of mitigation approaches</th>
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<td>- Developing methodologies and possible metrics to compare policies</td>
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<td>- Assessing the cost effectiveness of different measures and packages</td>
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Carbon market platform - Strengthening the response

The Carbon Market Platform (CMP) launched as a G7 initiative (2015) to enhance international co-operation among countries and organisations to develop effective, sustainable and ambitious carbon pricing policies.

→ More climate-negative carbon pricing policy changes occurred during COVID-19, however most of these were time-limited measures.

[2022: Carbon pricing and COVID-19 - Policy changes, challenges and design options in OECD and G20 countries]

→ Ongoing work: investigates the role of carbon pricing in transforming pathways to reach net-zero emissions and carbon pricing in food systems.

[Expected in 2023: The role of carbon pricing in transforming pathways to reach net-zero emissions: Outlining potential issues and options in food systems]
Economic effects of carbon pricing: Review of 21 ex-post studies

Source: Ellis et al. (2019)
Benefits from (sub-)global carbon markets

Global co-operation would reduce mitigation costs by 58 – 63%: USD 249 – 320 billion/year

Gains are distributed unevenly across countries:
- Most countries would benefit directly
- Some countries may not benefit directly
- Yet, aggregate benefits would be large enough to make every country benefit

Sub-global carbon markets would yield fewer economic benefits (absolute and relative terms)

Extending the coverage of international co-operation beyond CO₂ emissions would reduce mitigation costs further by 25-42%

Source: Nachtigall et al. (2021)
(NET) EFFECTIVE CARBON RATES
The average effective carbon rate (ECR) has risen modestly but remains relatively low

Average effective carbon price by instrument, G20 countries, 2018-2021

http://oe.cd/carbonpricing-g20
One reason for the low average ECR is the large proportion of unpriced emissions

The distribution of effective carbon prices across CO$_2$ emissions from energy use, G20 countries, 2021

http://oe.cd/carbonpricing-g20
Net effective carbon rates on fossil fuels

- Emissions permit prices
- Carbon taxes
- Fuel excise taxes
- Budgetary transfers that decrease pre-tax fossil fuel prices

Positive effective carbon prices (measured by CTPA)

Negative effective carbon prices calculated from the Inventory data and customised data collection (CTPA-ENV-TAD) – joint OECD Taxation working paper in preparation.
Revenue foregone against an external benchmark

Revenue foregone by not pricing CO₂ emissions at EUR 60
Calculating FFS through this approach allows for the construction of new indicators that are:

» Comparable across countries and over time.
» Straightforward to interpret.
» Useful to compare amount of FFS reported by countries.
Net ECR vs CSE in the OECD Inventory

\[ y = 0.4579x + 5.6006 \]
THANKS!

More information:

www.oecd.org/climate-change
www.oecd.org/environment/cc/carbon-market-platform/
https://oe.cd/carbonpricing-g20
www.oecd.org/fossil-fuels/