



Fossil fuel support through tax incentives - indicators

Regional Workshop on Tax Expenditures

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OECD tools for supporting reform of fossil fuel tax expenditures

OECD Inventory of Support Measures for Fossil Fuels
Effective Carbon Rates



OECD Inventory of Support Measures for Fossil Fuels

Policy stocktake (support delivery mechanisms)

– Strengths:

- Granular information on direct budgetary transfers and tax expenditures for fossil fuel use and production
- A bottom-up approach to promote transparency around public policies
- Covers 50 economies (OECD and selected partner economies) and more than 1 300 individual measures.
- Useful for identifying specific support measures for reform.

– Limits:

- Revenue forgone estimates may not be comparable across countries due to country-specific benchmark tax systems.



Other sources

International Energy Agency (price gap approach)

International Monetary Fund (Pigouvian pricing benchmark)



Comparing tax incentives across countries

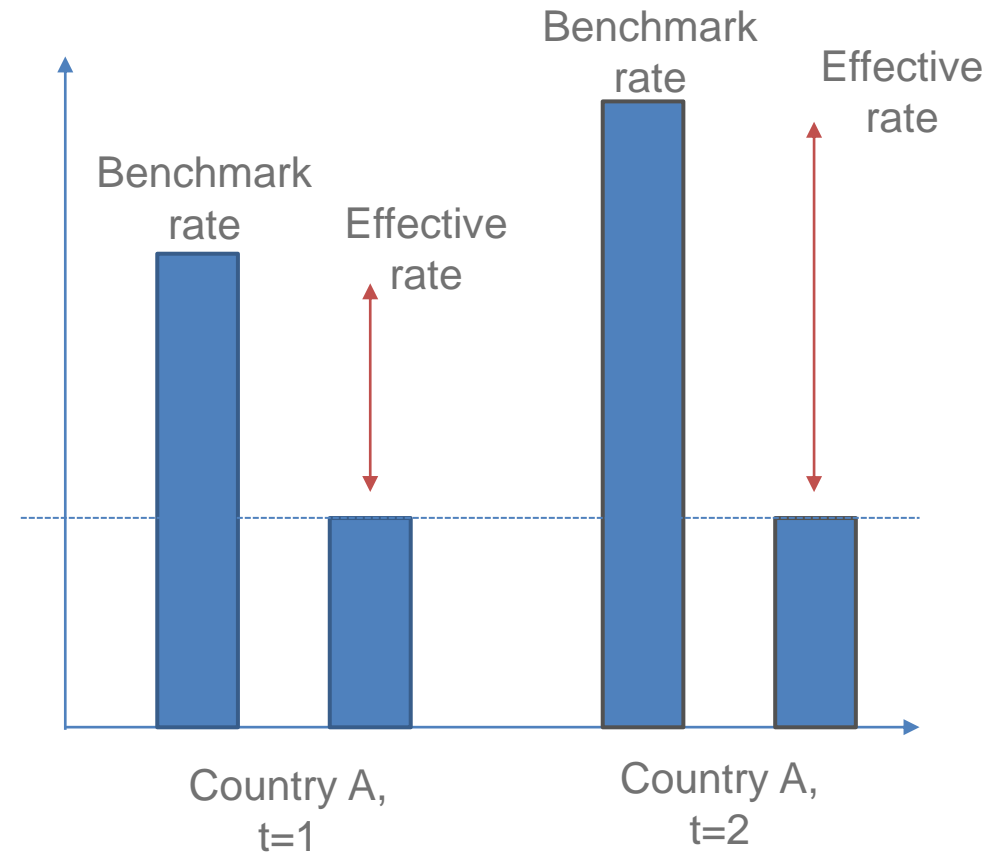
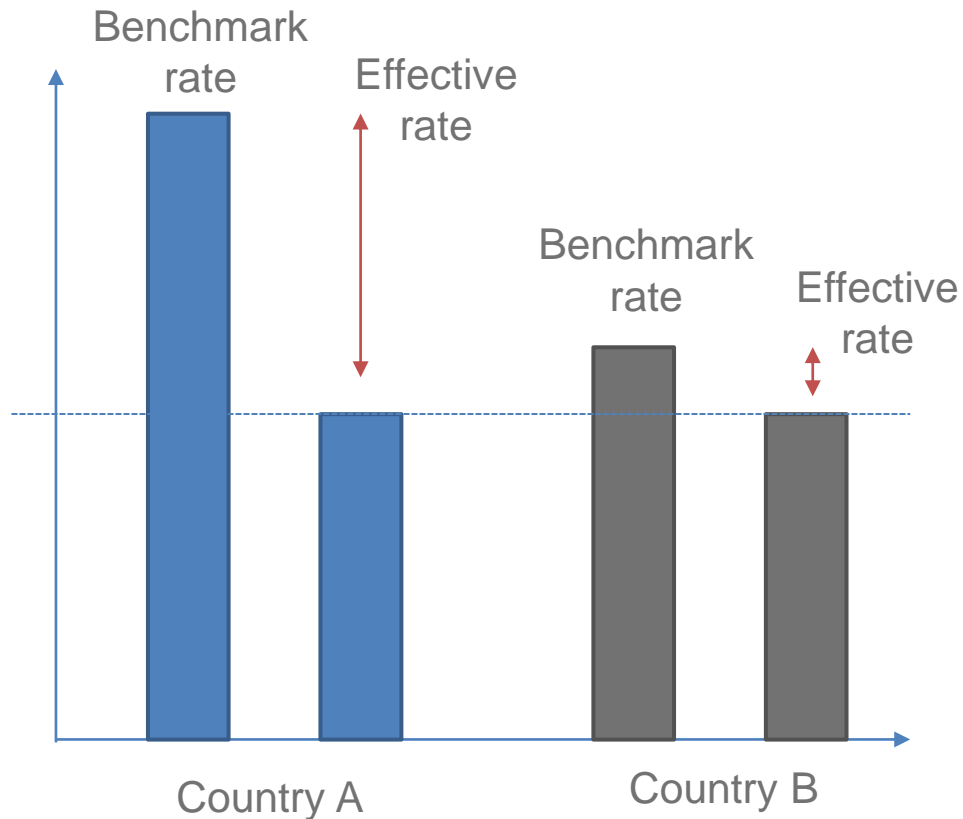
Benchmark: a country's tax system

- Differences in benchmarks can drive differences across countries
- Similar tax differences can be part of benchmark or tax incentives
- Change in benchmark can increase support measure without changing the effective tax rate

... alternative approach: not the support mechanism but the result – effective tax rates

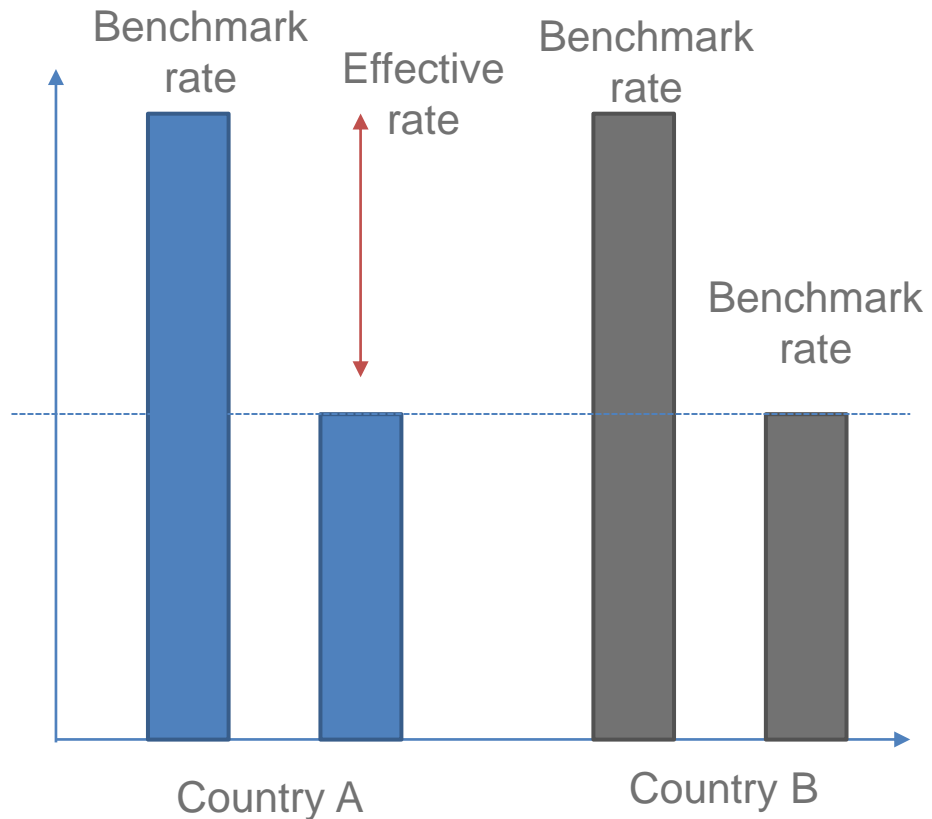


Comparing tax incentives across countries





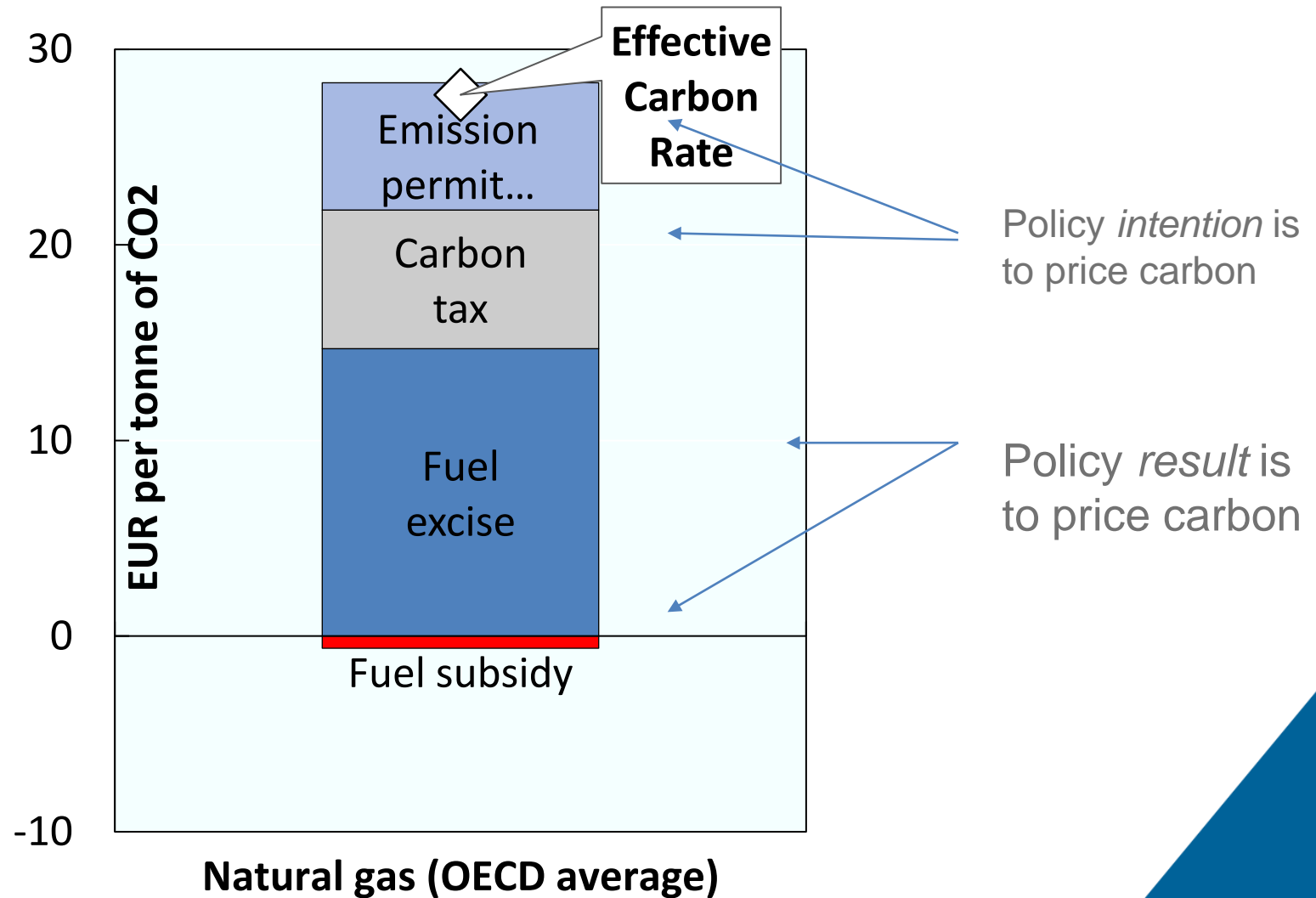
Comparing tax incentives across countries





OECD (net) Effective carbon rates

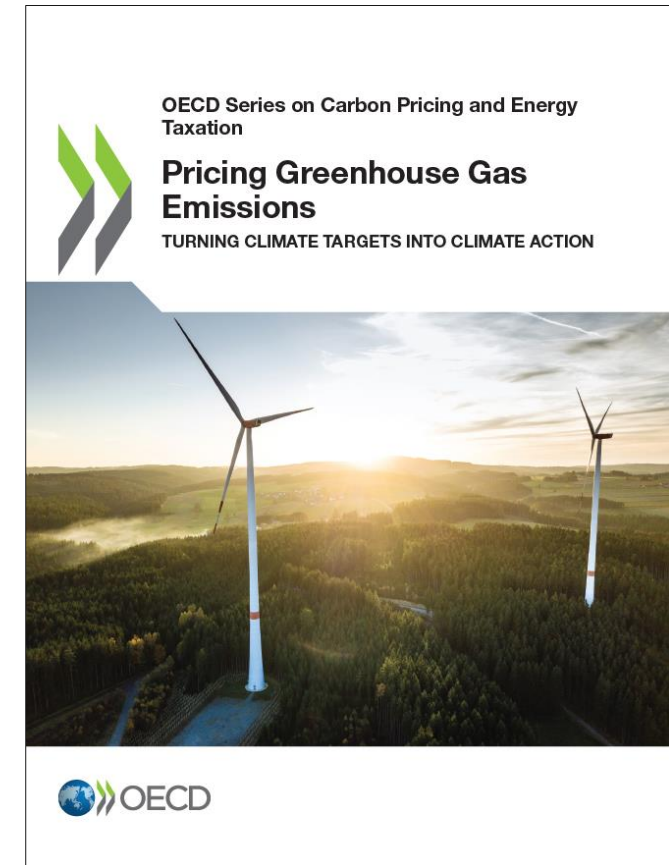
- Measure effective rates on energy use with detail on base
- Includes tax incentives via excise and fossil fuel subsidies (pre-tax transfers)
- Comparable across jurisdictions





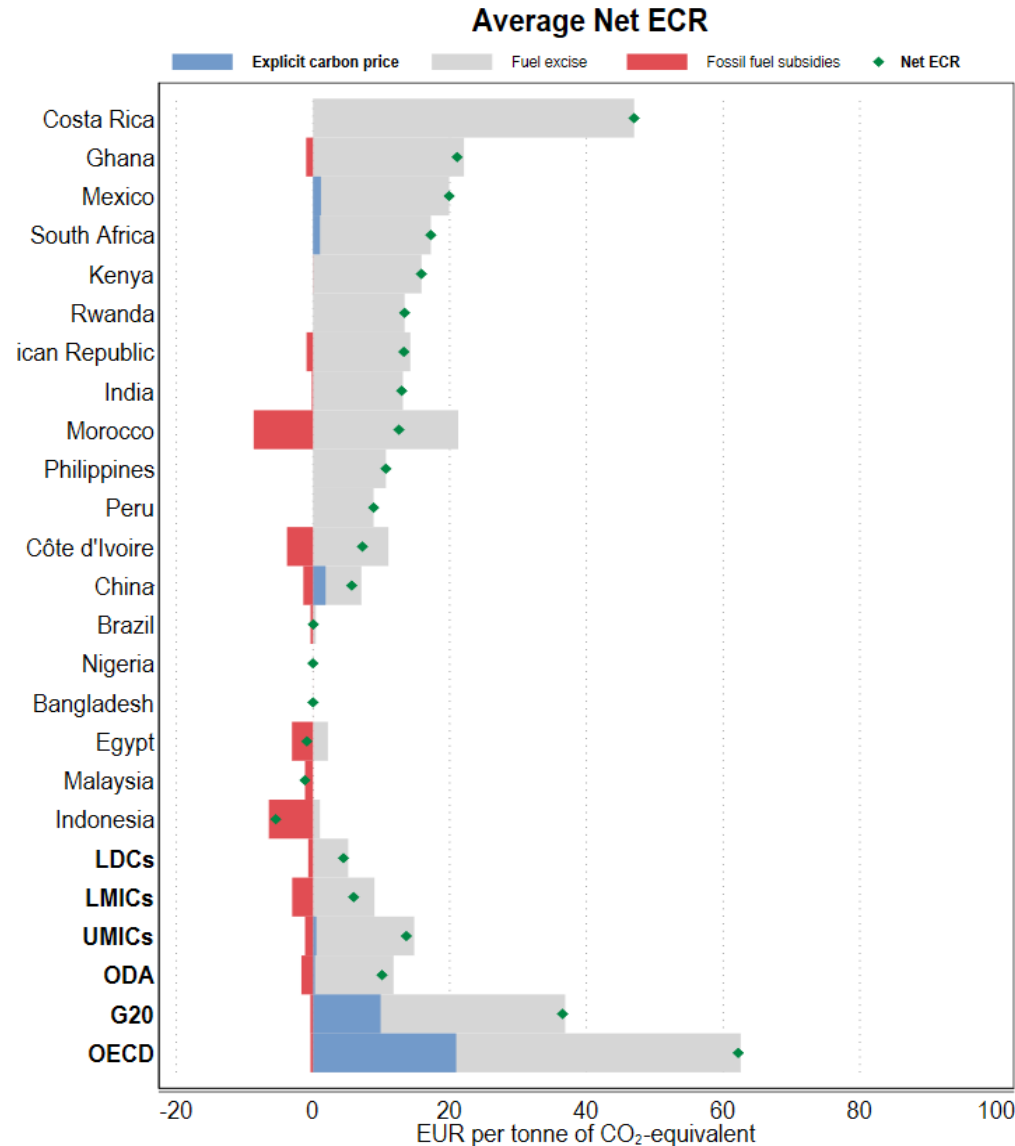
Pricing Greenhouse Gas Emissions: Turning Climate Targets into Climate Action

- Tracks how carbon prices, energy taxes and subsidies have evolved across 71 economies between 2018 and 2021
 - Economies covered account for approximately 80% of global greenhouse gas emissions
 - Estimates **positive carbon prices** resulting from carbon taxes, emissions trading systems, and fuel excise taxes, and **negative carbon prices** from fossil fuel subsidies





Fuel excise taxes are the main component of nECR for developing and emerging economies



Source: OECD (2022), OECD Series on Carbon Pricing and Energy Taxation. Pricing greenhouse gas emissions: turning climate targets into climate action



Responses to energy price hikes

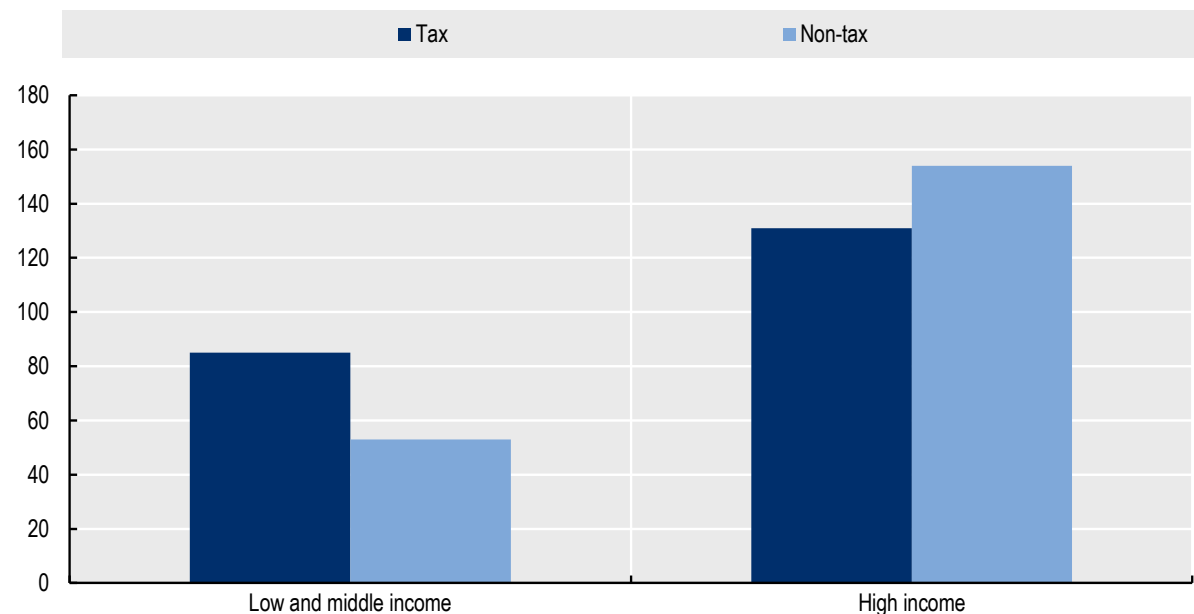


A wide variety of tax and non-tax measures

- **High-income countries:** greater emphasis on non-tax measures
 - Subsidies, cash transfers
- **Low & middle-income countries:** Tax measures relatively more common
- Possible explanation:
 - Differences in the degree of development of transfer and benefit systems

Government measures introduced in response to rising energy prices, September 2021 to May 2022

Count of the total number of measures introduced by governments



Note: Covers measures from 89 jurisdictions. Up to date as of 25 May 2022. Country income status reflects World Bank classifications.

Source: OECD Working Party 2 Delegate responses.

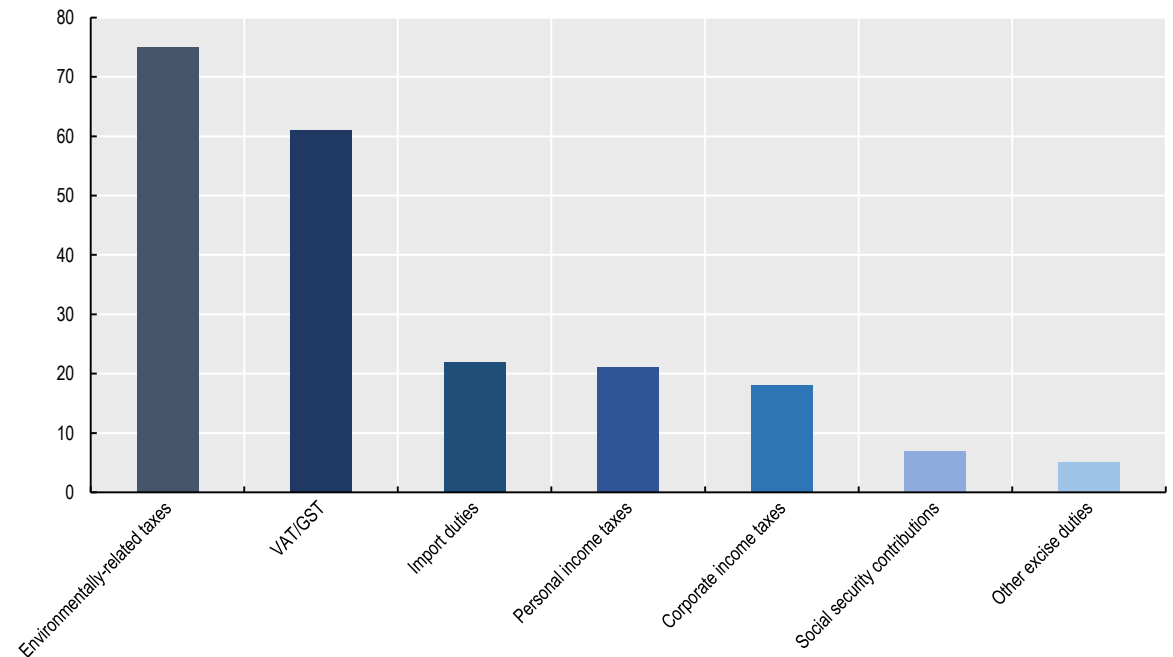


Many countries have temporarily cut fuel and electricity excises

- **Excise taxes** were cut in **over 80% of the jurisdictions**
 - mainly petroleum products
- Initially for short periods and then extended and generosity increased
- Some European countries **reduced VAT** on electricity and natural gas products, with some introducing **windfall taxes** in oil, gas and electricity sectors

Tax measures introduced in response to rising energy prices

Count of the total number of measures introduced by governments

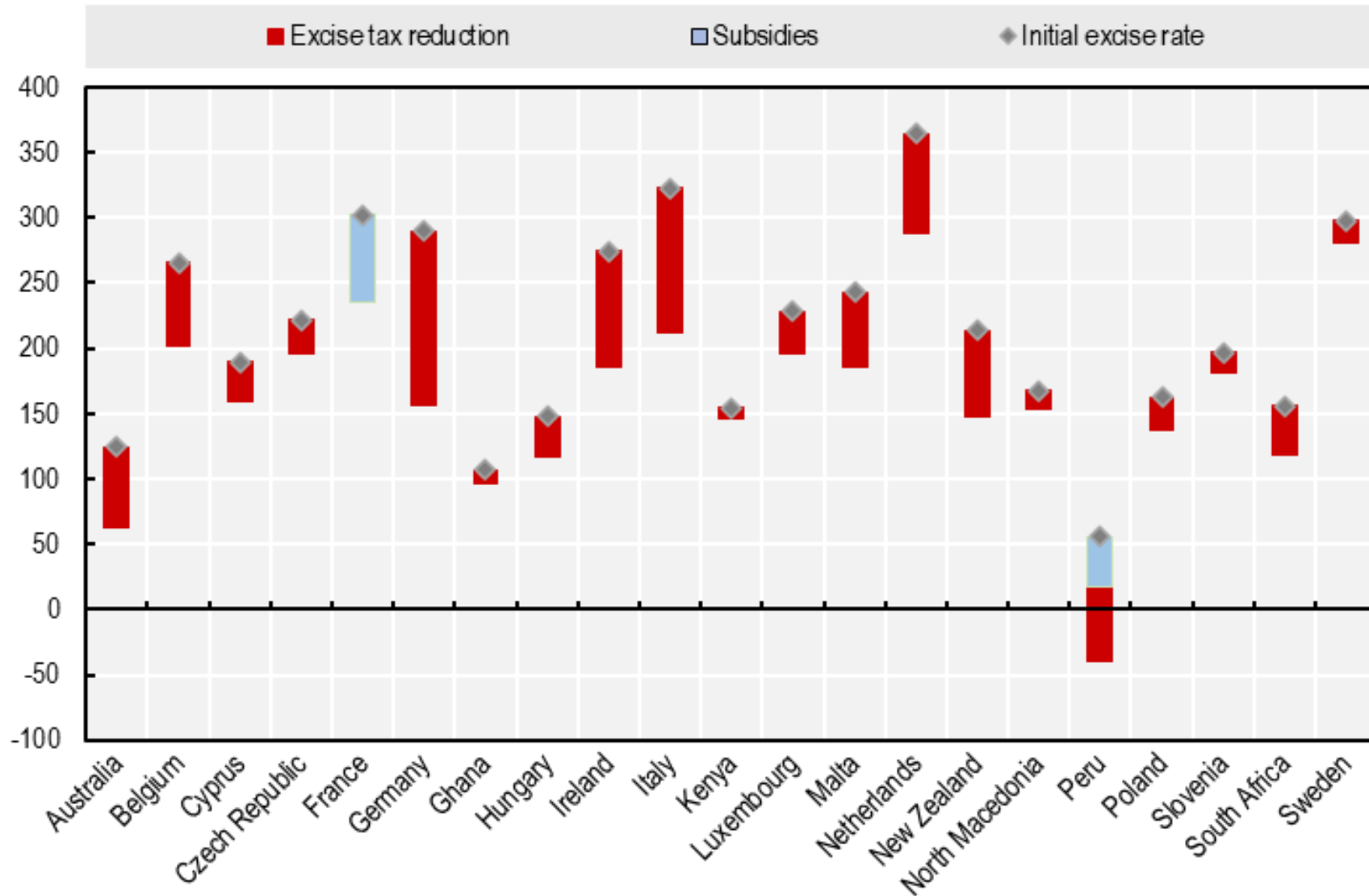


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Source: OECD Working Party 2 Delegate responses



Significant impact on implicit carbon prices





Corporate income tax incentives and climate change mitigation



Transition to net zero requires massive investments

- Corporate income tax (CIT) influences investment decisions
 - Extensive literature starting with Hall and Jorgenson (1967, 1969)
 - Taxation is one of many factors driving investment decisions
 - Intended and unintended effects
- CIT and the transition to net zero
 - Literature on clean technology adoption is scarce; some work on (green) innovation
 - Key policy questions are left unanswered



Inflation Reduction Act delivered in large part through the tax system

- “Historic firsts” - \$369bn investment of which \$270bn via tax (support)
 - Technology neutral production and investment tax credits (zero emissions – nuclear, renewables, energy storage)
 - EVs (also used, also MDV and HDV)
 - Clean Fuels
 - Buildings
 - CCUS (carbon capture, utilization and sequestration)
 - Manufacturing
 - Home energy use
- -40% GHG by 2030 compared to 2005 (power, industry, transportation,...)



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