The use of revenues from carbon pricing
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Motivation

- Introducing (or extending) carbon pricing requires balancing
  - political feasibility and public support considerations
  - with environmental effectiveness and sound tax policy principles

- Revenue use reflects these trade-offs and helps ensure longevity of carbon pricing.

This presentation

1. How could carbon pricing revenue be used in theory?
2. How is carbon pricing revenue used in practice in OECD and G20?
3. How much revenue is forgone from not pricing carbon at a given benchmark?
Scope

Carbon pricing instruments, following OECD *Effective Carbon Rates* definition:
- Fuel excise taxes – Carbon taxes – ETS;
- 40 OECD and G20 countries in 2016;
- Systematic and comprehensive description of how revenues are used
  - Extensive data collection exercise, starting from publicly available data, checks and refinements in communication with country experts
- Distinguishes between revenue uses
  - General tax revenue – Legal constraints – Political commitments
Available options for using revenues

» General tax revenue (unconstrained revenue use)
» Support tax policy changes
» Intergovernmental transfers
» Transport-related funding
» Green and energy-related spending
» Compensation to energy users
» Other
Current practice – share of revenue that is constrained

» **Excise tax on fossil fuels** [95.2% of total revenue]
  - 38% of revenue is constrained; mostly earmarks (36% of revenue)
  - pertains mostly to transport infrastructure funding (and intergovernmental transfers)

» **Carbon tax** [3.2% of total revenue]
  - 65% of revenue is constrained; earmarks (43%) or political commitment (22%)
  - pertains mostly to broader tax policy reform

» **ETS** [1.6% of total revenue]
  - 86% of revenue is constrained; mostly earmarks (78%)
  - constraints are more diverse, but usually there is a connection to “green spending”
Current practice – revenue potential

How much revenue is foregone by pricing carbon below a benchmark?

» Benchmarks
  – At least EUR 30/tCO₂ across the entire base, and remove free allocation in ETS
  – (At least rate of median country in each sector, and remove free allocation in ETS)

» For given demand

➔ Revenues from effective carbon rates currently amount to ~1% of GDP.
➔ Revenues could more than double, if price levels were aligned with climate policy requirements.
Current practice – revenue potential, EUR 30/tCO₂

Actual and potential revenue, EUR 30t/CO2 benchmark, % of GDP

[Bar chart showing actual and potential revenue for various countries]
Summary

- Frequency and nature of revenue use constraints differ between components
  - Excise ~ general tax revenue, few constraints (user charge)
  - Carbon tax ~ environmental tax reform
  - ETS ~ often constrained; green spending

- Amount of revenues raised also differ between these components
  - Large for excise taxes, small for carbon tax, tiny for ETS

- Revenue forgone is large
  - A form of earmarking if it results from preferential rates or free permit allocation
  - Reduces environmental effectiveness and efficiency of carbon pricing
  → Reform could remove preferential treatment (broaden base) and increase rates
Discussion

» Efficiency and double dividend vs. the political economy of constraining revenue uses

» Commitments to revenue use can strengthen support for carbon pricing
  – Constraints can be designed to make good sense from environmental and tax policy viewpoint (broad and flexible constraints → efficiency, transparency)

» As revenues increase, narrow constraints may become more politically risky, as well as potentially more economically costly.
  – Tax reform and transfers will more likely help generate acceptance for carbon pricing.

» At very high revenues, or when decarbonisation takes place, integration with broad redistributive policies may be preferred over uniform transfers.
Conclusion

» Ambitious carbon pricing arguably is a matter of mainstream policy more than of specific environment policy.

» Suggest to integrate revenue use decisions into a country’s overall tax and fiscal framework, rather than compartmentalise it as environmental tax policy.

» Do political economy lessons, related to revenue use, from current carbon taxes and ETS apply when carbon pricing ambitions are high? (E.g., preference for green spending, for lump sum transfers, vs. integration with tax policy and general revenue – keep separate or ‘mainstream’).

» The role of trust in government.