Implementing multiple carbon pricing instruments

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World Bank PMI Technical Workshop on Carbon Pricing
February 15-16, 2022

Carbon pricing: Essential climate policy

- Standard message from economists:

  CO2 emissions should be reduced (mainly) via carbon prices

  - Carbon tax
  - Cap-and-trade / emissions trading system (ETS)

- Why?

  - Carbon prices give incentives to reduce emissions in all kinds of ways
  - Carbon prices target the problem straight on

→Without carbon prices, reaching climate targets become difficult and more expensive

- But: Carbon prices alone are not sufficient

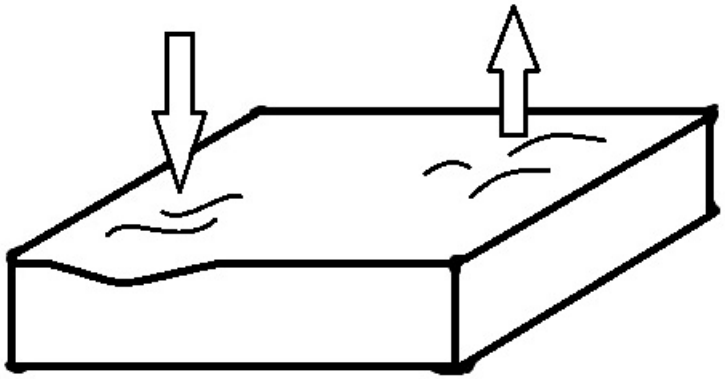
Supplemental climate policies

- Supplementing carbon prices with other climate policies – three reasons:
    1. Other market failures
        - Especially related to new technologies
    2. Carbon leakage
        - Relevant for countries with relatively high carbon prices
    3. Political acceptance
        - Public aversion against taxes

- Examples of supplemental climate policies
    - Supporting renewable energy
    - Phasing out coal power
    - Carbon tax on top of ETS

Interaction between climate policies

- Important to understand how different climate policies interact
- Combining ETS with other policies risk the waterbed effect
  - With a fixed cap on emissions, supplementary climate policies have no effect on total emissions
  - Total emissions are already determined by the policy makers → The carbon price changes
  - Böhringer and Rosendahl (JRE, 2010): "Green serves the dirtiest“



- Example: Carbon tax in Norway and UK
  - On top of EU ETS for some sectors
  - Shifts emissions to other countries/sectors/periods

Interaction between climate policies

- Can it still make sense?
  - ETS cap is not fixed for ever
  - Domestic tax: Help home country reach domestic emissions targets
  - Some sectors more robust than others
    - Accept reduced cost-effectiveness?
  - Long-run cost-efficiency may differ from short-run cost-efficiency
    - What is the best policy instrument?
  - Renewable support: Implies lower carbon prices

    → Less opposition against the ETS?

Interaction between climate policies

- Combining carbon tax with other climate policies
  - No waterbed effect
  - The carbon price is fixed, but not total emissions
- Carbon taxes and fuel taxes
  - Fuel taxes are not carbon taxes (formally), but have similar effects
  - Norway: Increased carbon tax, but reduced taxes on petrol/diesel last few years

    → Impacts on emissions depend on the tax level, not the name of the tax

Policy packages

- Reaching ambitious climate goals will be challenging
- Important to have public support
- High carbon prices will likely meet resistance
- Consider policy packages
  - Combining carrot and stick
- How to use carbon tax revenues
  - May be trade-off between efficiency and public acceptance

Policy packages

- Traditional recommendation by economists:
  - Reduce other distortionary taxes
- Alternative usage of tax revenues:
  1. Carbon fee and dividend
  2. Subsidies to climate-friendly alternatives
  3. Compensating measures for most vulnerable firms/people
- Goal: Find policy packages that are acceptable both from the public perspective and from an economics perspective

THANKS FOR THE ATTENTION!