Using Modeling Tools for Cost-Benefit Analysis of Carbon Pricing Instruments

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Considerations

- Three phases in the development of an instrument:
  - ✓ Policy initiation ➔ acceptance of the idea;
  - ✓ Decision making for itself ➔ adoption and design of the system;
  - ✓ Implementation ➔ practical application.

Time Perspective

Why using modeling for assessing a carbon pricing instrument?

- To work on different scenarios of emissions and mitigation potentials: helps on pos-2020 debate;

- To assess the costs and understand potential impacts beforehand;

- It helps to build consensus:

✓ It is important to prepare an objective basis for the domestic political debate.

✓ High lack of knowledge and intrinsic level of complexity led to misconceptions that need to be tackled.

Key Questions

- Understanding of models and what they can and can't deliver:
  - ✓Input assumptions and the structure of the model;
  - ✓Role of uncertainties;
  - ✓Choosing discount rates;
  - ✓What is left out of a model can be as important as what goes in.
- Emissions trading vs. carbon tax:
  - ✓Given chosen sectors, how different are their costs?
  - ✓Assessing macro-economic impacts (including competitiveness);
  - ✓Implementation cost?
  - ✓Distributional impacts and recycling revenues;
- Cost-effectiveness of different emissions trading designs:
  - ✓Testing sector scope and caps;
  - ✓Discuss the role of offsets.

Main Challenges

- Improve institutional capacity: "*Economic Modeling Team*"?
- Two moments: up to 2020 and post-2020
- To solve the lack of data in order to:
  - ✓better inform stakeholders and decision makers;
  - ✓reduce misconceptions and speed up the decision making process.