

Can Negotiating a Uniform Carbon Price Help to Internalize the Global Warming Externalities?

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Spring, 2014

The climate system is an angry beast and we are poking it with sticks. -- Wallace Broecker

Climate change is the biggest market failure the world has ever seen. -- Nicholas Stern

Background History

- Initial promise of Kyoto (my interpretation). Annex I developed countries show good faith by cutting back 2012 emissions by about 5% relative to 1990 levels. Then developing countries would join in second phase. Some hope that caps might be converted into cap and trade, overall level tightened.
- This approach largely failed. U.S. did not ratify. Others dropped out or failed to meet targets. Developing countries are not now joining.
- Current “Post-Kyoto” situation. Mainly given up on comprehensive top-down approach. Emphasis on bottom-up regional altruism. Does not address head-on the externality problem.
- Here attempt to address externality problem head on. Top-down approach revisited with price negotiation. Futuristic audience.
- I argue that the core difficulty is negotiating one price vs. negotiating n quantities.

Negotiating a Price vs. Negotiating n Quantities

- Three desirable properties for a negotiating instrument:
 - 1. Induce cost effectiveness
 - 2. Be of low (hopefully one) dimension centered on “natural” focal point (Coase, Schelling).
 - 3. *Embodiment “countervailing force” by giving *incentive* to internalize the externality*
- If negotiate n caps (with or without tradeable permits), at best satisfy point 1 above. Every country wants low cap. Free rider problem. No incentive to internalize the externality.
- Consider a binding agreement to adhere to a ***uniform minimum*** carbon price, which is then negotiated. Each country keeps the proceeds. Thought experiment. Lock everyone in a room and force them to come up with uniform minimum carbon price applicable to all parties.
- Explain informally how this embodies countervailing force by internalizing the externality. Paper shows formal sense in which this internalization occurs. With a lot of structure, majority voting result.

Some Concluding Thoughts

- Is this unfair to cap and trade? If attempt to restructure cap and trade, so that everyone votes or negotiates *total* emissions level *given* proportional reduction coefficients (explain), then have focal point and countervailing force incentive to internalize the externality. But same free-riding problem of stage-1 assigning or negotiating the n proportional reduction coefficients.
 - Critical difference between cap and trade *assigned* permits *within* country and *negotiated* permits *among* sovereign countries: symmetry between one price and one total quantity breaks down.
 - My tentative conclusion. Negotiating one price may be superior to negotiating n quantities because distribution issue somewhat defused. Distribution not front and center part of formula. Maybe quantity-based Kyoto approach flawed from beginning. If opportunity arises, we maybe should press for negotiating a single uniform *minimum* carbon price, proceeds retained. Lots of practical problems, but must recognize that *any* attempt to overcome global warming externality will involve some relinquishing of national sovereign right to pollute the global commons. Question is which structure works best.