

Carbon Tax Review and Updating: Institutionalizing an Act-Learn-Act Approach to U.S. Climate Policy

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Types of Uncertainty in Carbon Tax Policy

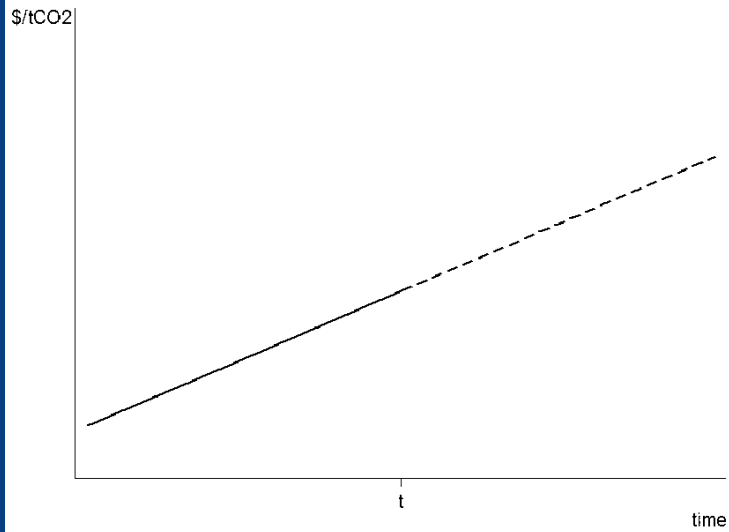
- Emission levels
 - Are CO₂ emissions in line with goals?
- Science of climate change
 - Does new scientific research justify updating of goals – and tax?
- Economic costs of carbon tax
 - Do household or industry costs justify changes to CO₂ tax?
- International relations
 - Does ambition of US CO₂ tax compare with other nations' efforts?

Policy Updating: Structured Discretion

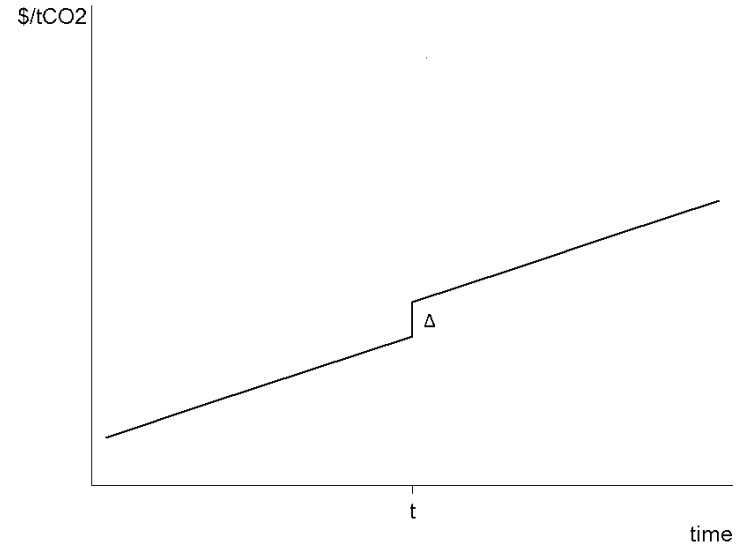
- Act-learn-act approach to policy
- Presumed design of carbon tax: starts at $\$X/tCO_2$ (level) and increases $Y + CPI$ percent per year (escalator)
- Carbon tax updating
 - (1) Environmental, Economic and Multilateral Reviews
 - (2) Executive proposes a Congressional resolution based on reviews
 - (3) Legislative action on resolution

Carbon Tax Schedule under Structured Discretion

A. Carbon tax schedule over time under current law



B. Congress votes for Presidential Proposal



Review

- Principles for Review
- Environmental Review
 - EPA: Focus on climate science and impacts
→ similar to National Climate Assessment
- Economic Review
 - Treasury: Focus on efficiency, revenues, distribution, emissions
→ similar to regulatory impact analyses, retrospective analyses
- Multilateral Review
 - State Dept: Emission mitigation efforts by other countries
→ similar to transparency called for under Paris Agreement

Updating

- President proposes change to carbon tax
 - Could modify the tax rate level (X) or escalator rate (Y)
 - Effective date N years in the future (e.g., 5 years)
 - Takes the form of a joint resolution of Congress
- Timing: every 5 years to coincide with Paris Agreement NDC review and updating process
 - Time proposal in the lead-up to a round of review
- Any country could implement its NDC with this approach

Legislative Action

- Joint resolution of Congress that is not subject to amendment, filibuster
- Specify legislative mechanisms to ensure updating resolution comes to floor of each house for a vote
- Specify number of days by which a vote must occur
- Similar to U.S. Trade Promotion Authority

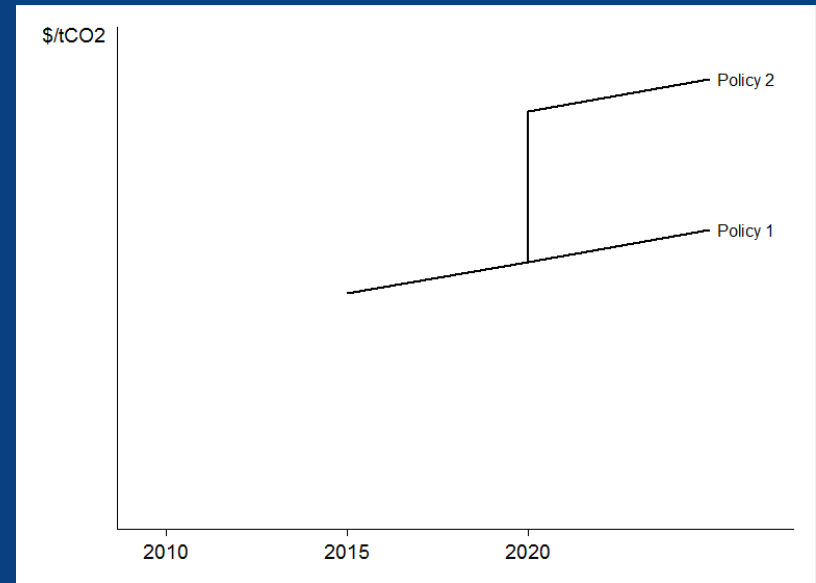
Illustrating Tax Updating

Policy 1: A CO₂ tax became law in 2010, set to begin in 2015

- Initial tax set based on USG SCC (\$28/tCO₂) and increases based on IWGSCC schedule

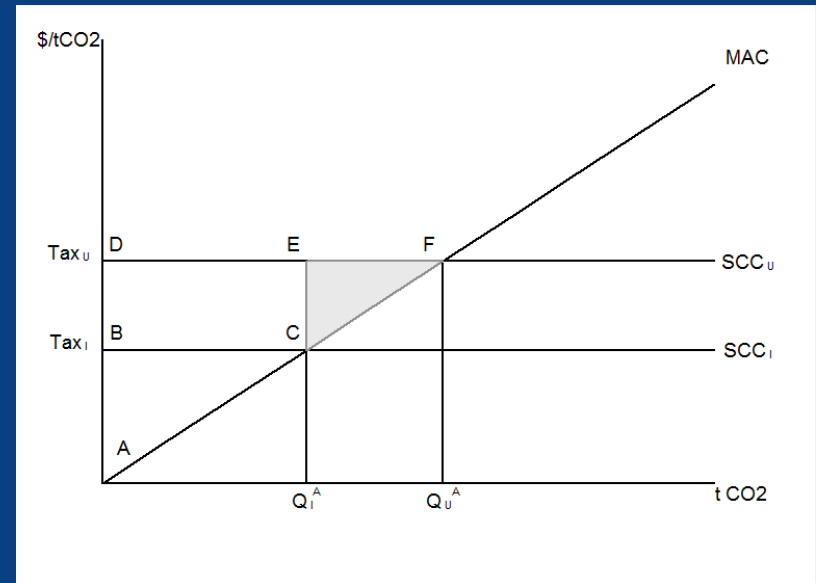
Policy 2: Same initial set-up as policy 1, but with 5-year reviews

- First review in 2015, with any tax adjustment due in 2020
- Suppose President proposes higher tax based on 2015 IWGSCC update report



Potential Welfare Gains

- Policy 2 C tax in 2020 becomes \$51/tCO₂, much higher than Policy 1 C tax of \$32/tCO₂
- 2020 emissions abatement increases by ~500 MMTCO₂
- 2020 welfare gains ~\$5 billion



Concluding Thoughts

- Design tax to account for a broad set of uncertainties
- Potential to combine this with a tax schedule approach that addresses short-term emissions uncertainty
- Leverages institutional design to ensure periodic review and updating
 - Formalizes retrospective and prospective review of a tax
- Integrate with periodic updating of mitigation pledges under Paris Framework

References and Contact Info

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