A U.S. Cap-and-Trade System to Address Global Climate Change

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INTRODUCTION

- There's a *growing impetus* for a domestic U.S. climate policy to provide *meaningful* reductions in CO_2 and other greenhouse gases
- And general consensus among policy analysts that a *market-based instrument* targeting CO_2 emissions should be a central element
- While there are *tradeoffs* between two MBIs – cap-and-trade system and carbon tax – *best and most likely* approach for short to medium term in the United States is a *cap-and-trade system*
- *Three criteria for policy assessment*: environmental effectiveness, cost effectiveness, and distributional equity

Key Merits of a Cap-and-Trade Approach

- Provides cost-effectiveness, *and* certainty about emissions levels
- Offers an easy means of compensating for the inevitably unequal burdens imposed by a climate policy
- Provides a straightforward means to harmonize with other countries' climate policies
- Avoids current political aversion in the United States to taxes
- Has a history of successful adoption in this country

Proposal for a U.S. Cap-and-Trade System

- *Upstream, economy-wide* CO_2 cap-and-trade system, with gradual inclusion of other greenhouse gases (and offsets for carbon capture & storage)
- Gradual downward trajectory of emissions ceilings over time, to minimize disruption and allow firms and households time to adapt
- Mechanisms to *reduce cost uncertainty* (price volatility): banking, borrowing, and a sensible cost-containment mechanism
- Initially, half of the program's allowances allocated through auction and half through free distribution, moving to *100% auction* within 25 years
  - Free distribution targeted at entities *most burdened* by policy -- helps limit potential inequities while bolstering political support
  - Auction *generates revenue for worthwhile public purposes:* compensation, R&D, reduction of Federal deficit, and/or reduction of distortionary taxes
- Linkage with international emission reduction credits, and harmonization over time with cap-and-trade systems in other countries
- Appropriate linkage with actions taken abroad to maintain a level playing field between imports and import-competing domestic products.

Comparison with Alternatives

- Alternative to cap-and-trade *most frequently considered by policy makers* for CO_2 & other GHG reductions is *standards-based policy*
  - *Inferior* to CAT (and carbon taxes) in terms of environmental effectiveness, cost effectiveness, and distributional equity
- Among some economists and other policy analysts, there is interest in use of *carbon taxes*
  - Most of the critiques of cap-and-trade use straw-man caricatures
- Environmental effectiveness: tax does not guarantee achievement of emissions target (but provides greater certainty regarding costs) – fundamental *tradeoff*
  - Taxes provide automatic temporal flexibility; need to build in to CAT
  - But, political economy forces strongly point to *less severe targets* if carbon taxes are used, rather than cap-and-trade – *not* a tradeoff
  - This is *why* environmental NGOs are unanimously *opposed* to taxes.

Comparison of Cap-and-Trade & Carbon Tax

- In principle, *both* can achieve *cost-effective* reductions.
- *Distributional consequences* of two approaches *can be identical*
  - *But* political pressures on *carbon tax system* lead to *exemptions of sectors/firms*, which *reduces environmental effectiveness and drives up costs*
  - Political pressures on *cap-and-trade system* lead to different *allocations of allowances*, which affect *only* distribution, *not* environmental effectives, *not* cost effectiveness
- So, some observers worry about propensity of political process under a CAT system to compensate sectors (through free allowances allocations)
- But a carbon tax is sensitive to the same pressures, and may be expected to succumb in ways that are ultimately more dangerous.
- It is important to design policy that is “optimal in Washington,” not just in Cambridge, New Haven, and Berkeley.

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