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

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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 CO₂ & 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.
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 effectiveness, 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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