Allowance Price Containment

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# Root of the Issue

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<td>Cap and trade with firm cap</td>
<td>Guaranteed long-term emissions target</td>
<td>Price/Cost uncertainty</td>
<td>Flexibility: Banking, borrowing, and offsets</td>
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<td>Intervention (price ceiling, price floor, allowance reserve)</td>
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Cap-and-Trade: Price Uncertainty Implications

- Policymakers: A rational decision (ex ante)
  - “Trusted” economists estimate the allowance prices and economic impacts in advance
  - Congress chooses target/options with highest expected efficiency (or with “acceptable” cost)
  - Program is implemented

- Problem (ex post)
  - Even “trusted” estimates are likely to be off once program takes off
    - Mean/trend
    - Un-modeled fluctuations

- Adaptive measures needed?
NO\textsubscript{x} OTC Current Vintage Price

![Chart showing the price of NO\textsubscript{x} OTC allowances from 1997 to 2005. The price fluctuates significantly with peaks in 1999 and 2003, and a general downward trend afterward.]

Source: Presentation, Billy Pizer RFF
Historic Prices
From Point Carbon June 17, 2010

Kyoto

Global economic crisis hits
Why do allowance prices vary?

- **Fundamentals**
  - Allowance demand uncertainty
    - Economic growth
    - Pace and cost of low carbon technology
  - Supply uncertainty
    - Offsets
  - Policy shifts

- **Fluctuations**
  - Weather
  - Macroeconomic factors (growth, exchange rates,...)
  - Energy markets

- **Hedging/speculation?**
Goldilocks Paradox

• Don’t want prices “too high”
  – Excessive cost burden on households and businesses
  – Trade flow disruption
• Don’t want prices “too low”
  – May not generate sufficient investment
  – Foregone cheap reductions
• Want it “just right”
“Getting it Right” options

• Rein in high prices
  – Safety valve: hard price ceiling
  – Allowance Reserve Auctions: flexible price ceiling

• Prop-up low prices
  – Hard price floor

• Price “collar” tries to do both
Waxman-Markey: Flexible collar

- **Hard price floor**
  - Regular auction will set a reservation price of at least $10
    - Government will not sell allowances for less than this
  - Rising at 5% per year
- **Flexible price limit: Strategic reserve**
  - Initial: ~ 2.5 billion tons set aside within long-term cap
  - Cost containment auction at a “reserve” price
    - 2012: $28, Rising at 5% (double the projected price)
    - 2015 -> 36 month rolling average of market price
  - Annual limits on use (5%, 10% of cap)
  - Replenishable with international offsets (REDD),...
  - Flexible? Price not absolutely guaranteed
A View of the Waxman/Markey Reserve

Reserve comes from here

Minimally acceptable cap
Aspirational cap

Emissions

2012 2050
Kerry/Lieberman: Discount Window

- **Hard price floor**
  - Regular auction will set a reservation price of at least $12
  - Rising at 3% per year

- **Discount Window to access strategic reserve**
  - Initial: 4 billion tons set aside within long-term cap
  - Right to purchase up to 15% of compliance at set price
    - 2012: $25, Rising at 5%
  - Replenishable with government purchased offsets, 80% ratio
  - No banking when access window
  - No sales of allowances within 90 days of window purchase
Refinement options

- Reserve Modifications
  - Size of reserve
  - Reserve price points
    - Change initial reserve price
    - Drop rolling average approach
  - Move decisions to discretionary board
  - Triggered by something else other than a price spike.