Workshop on Carbon Market Design
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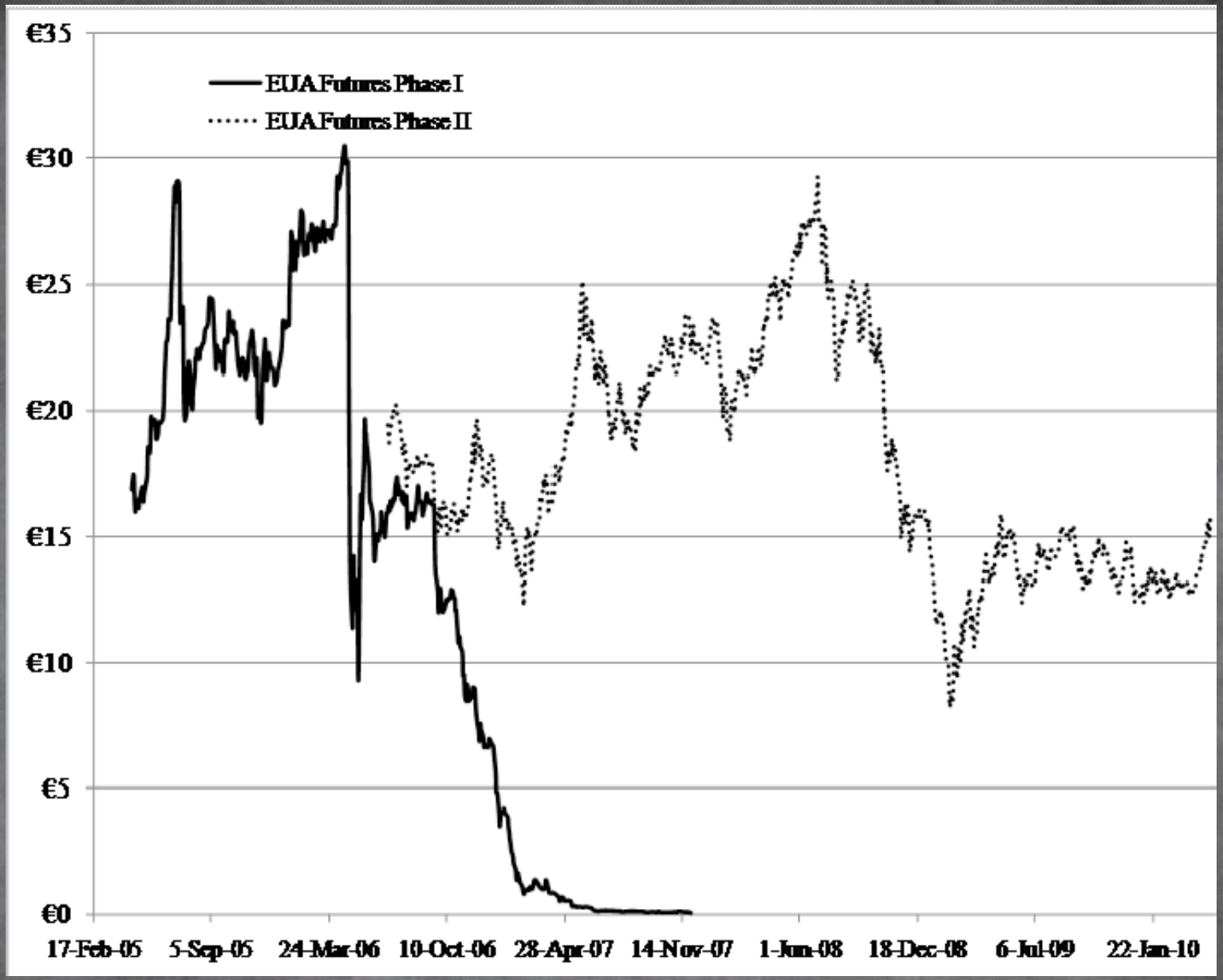
Moderating Price Volatility and Participation in the Carbon Market

Discussion by:
Matthew Harding (Stanford University)

Issues arising in emissions allowance markets

- Design issues for a cap-and-trade program
- Once allowances are distributed market participants can trade allowances
- Improved efficiency in light of demand and cost uncertainties

- What mechanisms can be establish to address the potential for market failure?



EUA Futures Prices (from B. Mitzrach)

What went wrong?

- Prices for the Phase I EUA December 2005 expiry futures contract opened at €16.85 on April 22,
- The number of allowances distributed in 2005-6 exceeded emissions by about eighty million tons or about 4% of the total EU cap. A sell off began
- Greenhouse emissions audits were revealed to be lower than forecast by 15% and prices collapsed by almost 40%
- By February 2007 price was at €0.01

Price controls

- Actively discussed in current legislative proposals
- Implementation through additional supply
  - New
  - Borrowing against the future
  - Limited/Unlimited

What can happen with price controls?

- Historically the US has struggled whenever price controls were used as a policy tool
- Long history in the oil market (see Hamilton, 2011, Oil Price Shocks)
- Leads to non-price rationing of resources and distortions

Contribution of this paper

- Price controls are tricky to administer, but in this specific market they also open up the possibility for participants to use the price controls to strategically manipulate the supply of allowances
- The additional supply of allowances has a public good component
- Bigger problem when firms have short planning horizons and represent a large share of the emissions
- How to design a mechanism for reducing allowances when no longer needed?

Additional questions

- Can we say anything about the impact of reducing the supply of allowances?
- How do we factor in carbon offsets given the potential lack of additivity/permanence/ leakage?
- Secondary markets are likely to be even more fragile – particular risk for thin markets