# The EU ETS: Dead End or Path to the Future?

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### Motivation

- Path to the Future?
  - Trading system offers best hope for global regime
  - Kyoto Protocol embodied this vision and hope
  - EU ETS provides cornerstone for such a system
- Or Alternatively, a Dead-end?
  - US partner-system unlikely for a decade (at least)
  - EU ETS widely seen as failing (and by Europeans!)
  - Could it be abandoned in favor of more visible actions?

#### Main Features of the EU ETS

- A classic cap-and-trade system
  - But highly decentralized implementation
- Covering electric utilities & industry
  - Aviation will be added in 2012
- Sequential multi-year periods with declining cap
  - 2005-07; 2008-12; 2013-20; -1.74% annually post-2020
- Offsets allowed up to 13% of emissions
  - Only from Kyoto CDM and JI mechanisms

#### **Achievements of EU ETS**

- A price on carbon about 7% of global GHG emissions
  - Modest reductions so far; but pervasive signal for abatement, investment, and innovation
- Mechanism in place for effecting further limitation of GHG emissions as desired
  - More than anyone else has done
- Shown feasibility of multi-national system
- Path-breaking changes in allocation

# The EU as a Microcosm of the World?

- Sovereignty
  - Member states are sovereign nations
  - EU decision-making and Directives
  - A very weak federal structure
- Heterogeneity
  - Economic circumstances: per capita income
  - Market institutions and experience
  - Commitment to climate policy varies widely
- E-W divide similar to global N-S divide

#### The EU ETS as an EU Institution

- Full participation despite differences
  - But not needed globally
- The only uniform price in the EU
  - Assures least cost abatement
- Successful amendment to correct for initial problems; demonstrated ability to adapt
  - Continually tighter cap
  - Redistribution of cost burden
- This is what is needed globally

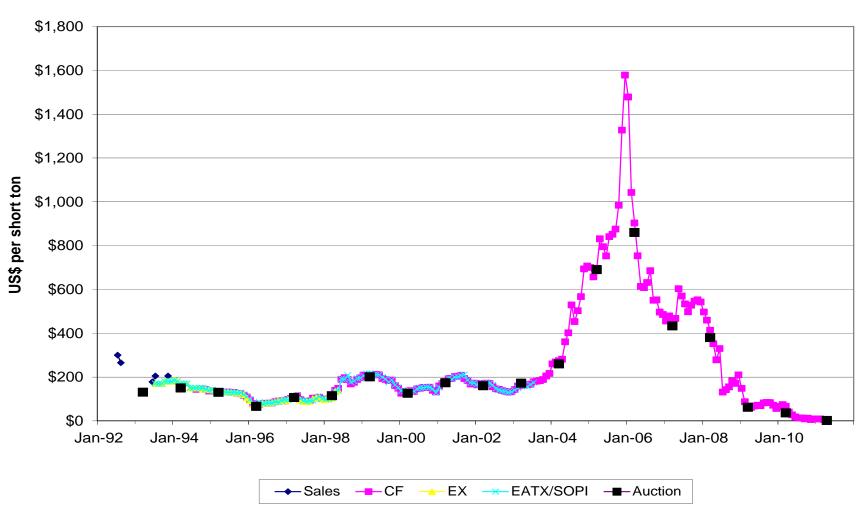
#### Is All Well with the EU ETS?

- A persistent ETS malaise within Europe
  - Proud of the achievement, esp. to outsiders
  - But, pervasive feeling that it does not do enough
- Voiced as: "The price is too low."... But why?
  - Is the cap too loose?
  - The recession has reduced demand
  - Is something else suppressing demand?
- Could other climate policies be the problem?
- Perhaps also, impatience, lack of visibility?

# Problems? Not What You Hear About

- Not VAT fraud, phishing, CER recycling, registry hacking, or price volatility
- The real problem: EUA price suppression
  - Other climate policies are the cause
- RE incentives overlap & reduce demand
  - Not a trivial amount; 10X price effect in Germany
- What effect on longer term investment & innovation?

# US SO<sub>2</sub> Trading: Harbinger of the Future?



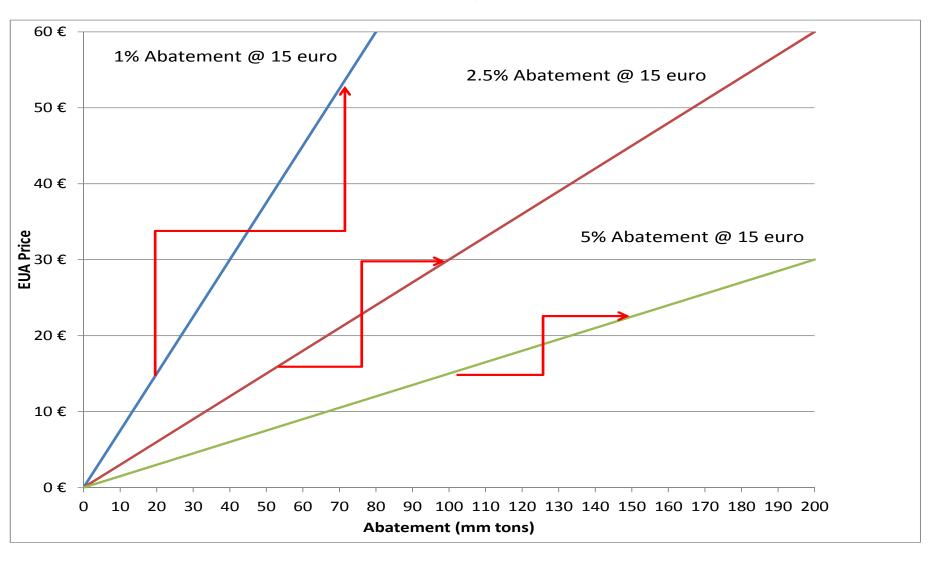
### The Sad Fate of US SO<sub>2</sub> Trading

- Initially, reducing acid rain precursor emissions
- Then, fine particulates and a brilliant regulatory solution: tighten the cap (CAIR)
- But, the underlying (1970s) legislation requires that source-receptor relationships be taken into account; and a judge so rules.
- Now, a cap with overlapping (more constraining) conventional, prescriptive regulation
- Government fiat can destroy as well as construct

### RE and ETS Effects German Electricity Sector Simulation

	2008		2009		2010	
	Units	%	Units	%	Units	%
RE Injections (TWh)	72	11%	74	12%	80	12%
Displaced Generation (TWh)						
Coal	-31	-17%	-34	-20%	-32	-18%
Natural Gas	-35	-33%	-27	-28%	-40	-36%
ETS Effects (TWh)						
Coal	-7	-4%	-7	-4%	-10	-6%
Natural Gas	7	7%	7	7%	10	9%
Emission Effects (mm tons)						
RE Injections	-49	-14%	-51	-15%	-53	-15%
EUA Price	-4	-1.1%	-4	-1.1%	-5	-1.5%
Counterfactual Emissions	355		340		349	
RE demand suppression	45	13%	47	14%	48	14%

### Illustrative Price Effect of Overlapping Instruments



### What's Wrong With This?

- It is significantly more costly
- Can government direction (subsidy & mandate) be as effective as price?
  - Do we know (or command) the future?
  - —Could RE policy be subject to capture?
- Will it replicate globally as well?
- Is GHG reduction the primary objective, or an ancillary benefit?

#### **Final Remarks**

- The EU ETS is a success & still the path to the future for a global regime
- But it will not be if it becomes the casualty of a misguided industrial-cumclimate policy
- Need more attention to interaction of instruments, clearer thinking on the objective, and how best to engage the rest of the world