Current Challenges of Emissions Trading: EU ETS

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State of ETS and Climate Policy in the EU

- **General context**
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General Context

- 2050 Roadmap: -80-95% reduction of GHG emissions wrt 1990
- 20-20-20 by 2020
 - 20% reduction of GHG emissions wrt 1990: EUETS for power & industrial sectors as centerpiece: OT. National target for non-EUETS
 - 20% share of renewable energy (with MS targets): OT
 - 20% improvement in energy efficiency (not legally binding)
- 2030 Proposals
 - 40% reduction of GHGs, non-contingent and without offsets
 - EU Renewable target (27%) and EC-coordinated national energy plans
 - Changes in EUETS

Overview of EU ETS



http://fsr.eui.eu/Publications/ WORKINGPAPERS/Energy/2014/ WP201404.aspx

Denny Ellerman, Claudio Marcantonini and Aleksandar Zaklan

EU ETS

- Origin: cost-effective achievement of Kyoto targets through market-based instruments (limits to carbon taxation)
- Largest cap-and-trade program: 4% of global GHG emissions, 45% of GHG emissions of 28 countries (EU+EEA-EFTA)
- Learning by doing process: from national caps and allocation to a centralized, wider and tighter system
 - Phase I, 2005-2007 (pilot period): only CO₂, 25 NAPs: establishment of price and generation of verified annual data
 - Phase II, 2008-2012 (KP compliance): NOx, 1.4 bT of offsets (CDM and JI), tightening of the cap, banking
 - Phase III, 2013-2020: single declining EU-wide cap, harmonized allocation rules for free-allocated allowances (benchmarking), EU single registry, auctioning by default (2013: 40% of allowances), aviation, linking



EU decarbonization



Source: Elaborated from Eurostat and CITL/EUTL data-base.

• The ratio of emissions to GDP has declined at an average rate of about 3.3%, while the rate of decline in the years 2000-2004 was 1%

EU ETS price



EU ETS

- The volume of trades involving EUAs has steadily increased over the life of the program
- Low end of Phase II price because of large surplus due to the economic crisis, use of offsets and effects of other existing policies. Yet, this was mitigated by banking and the declining cap
- What have been the main influences on price evolution after 2008? Crisis (from 25-35 to around 5 Euros), renewable and energy efficiency targets, offsets (but expectations)
- Concern about surplus (2 billion allowances) and low prices in Phase III: 'Backloading' (timing of auctions): postponing the auction of 900 million allowances to 2019/20

EU ETS

- Proposals for Phase IV (2021-2028)
 - Sectors covered should reduce their emissions by 43% (wrt 2005): increase linear reduction factor from 1.74% to 2.2% as of 2021
 - From offsets to linking
 - Market stability reserve: address, in an automatic manner, surplus of emission allowances and 'promote the resilience of the system to major shocks'
 - It is based in an 'acceptable' range of allowances in circulation: when above the range, allowances added to the reserve by deducting them from future auction volumes and vice-versa
 - Derived EU RE target
 - Legislative proposal on MSR and decision on the 2030 framework by EU leaders in late 2014

Other policies in place

- Overlapping vs non-overlapping; EU-level vs national and subnational level
- RE promotion
 - Technological spillovers and other objectives
 - Reduction of emissions and thus demand for allowances
 - Cost-ineffective outcome
- Energy efficiency
- Measures on non-EU ETS sectors: Difficulties for taxation
- 'Fixing' the EU ETS price from MS: the UK experience
- Auctions as a source of MS revenues

Other policies in place

Objectives of ENTRACTE



- I. Coherently assess climate policy instruments with the full range of economic research methods
- II. Understand interactions between multiple climate policy instruments
- III. Take into account the barriers to implementation
- IV. Identify mixes of instruments that provide an effective, efficient, and feasible overall EU climate policy to achieve legislated and aspirational targets of GHG emission reductions

Some avenues for research



- EU ETS and innovation
- Effects on abatement and leakage with firm data
- Banking
- www.eforenergy.org/toxa

THANKS

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