EU ETS structural reform

Why and how to bring supply-side flexibility in the EU ETS?
Outline

1. The expected role of the EU ETS and its prerequisites

2. Behind economic conditions, EU ETS is marginalized due to its lack of flexibility

3. The creation of a credible and robust anticipation environment requires a structural reform

4. A possible mandate for an Independent Carbon Market Authority (ICMA)

5. The ICMA in practice
Expected role and prerequisites

Technological and organizational changes necessary over time are widely unknown today; no simple rule to determine a desirable or optimal level of the carbon price over time.

The expected role of the EU ETS:
- Achievement of a reduction target at least cost in this context of uncertainty
- Coherence of the energy and environmental transition (Climate Energy Package 2020-2030, Roadmap 2050)
- International credibility and leadership (international negotiations, non-EU carbon markets)

Prerequisites:
- Price must reflect a credible constraint in the short term (existing capital) as well as in the long term (investment decisions)
- The trading scheme must be complementary of other policy instruments

Risk of a dysfunctionsing ETS:
- Costly emission trajectory due to carbon lock-in and uncontrolled policy interactions
A system structurally marginalized

Three major reasons for the current price:
  • Economic downturn since end-2008 and deteriorating growth outlook
  • Abundance of carbon offsets due to the unexpected evolution of the Kyoto system + effect of unexpected restrictions
    Amount used: ~40% of today’s banking
  • Interactions with the other energy and climate policies
    Could cut EU ETS emissions by 50-100 Mt/yr independently of the price

Beyond economic conditions, which influence on the price is desirable (counter-cyclical effect), the system has been weakened for structural reasons.

Energy efficiency, renewable energy, carbon offsets and international quotas result in decreased demand for allowances on the market. May impact the actual constraint much more than initially expected/desired.

Mechanically leads to the progressive marginalization of the ETS and to unilateral measures from MS (ex: UK carbon price “floor”)

A credible and robust environment

Allowances’ value relies on political credibility. Market actors need to know that policy interactions will be taken care of in due time, consistently, in a predictable framework.

To deal with structural changes in demand, it is required to bring flexibility in the supply side. Two aspects must be dealt with at the same time:

- In the short term: auction calendar
- In the medium-long term: allowance cap

All relevant information supporting intervention should be continuously and publicly available:

- “Surplus” only does not justify intervention
- Coherence between short term conditions and long term anticipations

Current intervention framework does not appear to be adapted:

- Announcement of energy efficiency measures: price drops by 23%
- Backloading: proposal in Nov. 2012, price drops by 15%
- Rejection in Apr. 2013, price drops by 30%
An Independent Carbon Market Authority

<table>
<thead>
<tr>
<th>Function</th>
<th>Associated actions</th>
</tr>
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</table>
| Continuous monitoring and information transparency | Collect, analyze and share data on:  
  - Market transactions and prices  
  - Emission trajectories  
  - Compliance behavior  
  - Low carbon investments  
  - Competitiveness effects  
  Motivate and justify its decisions.                                                                                     |
| Liquidity and market functioning in the short term | Primary market: dynamic management of auctions.  
  No need for secondary market interventions.                                                                                           |
| Credibility of the medium to long term constraint over time | The public authority determines the global EU GHG emissions target, and the policy tools to achieve this target.  
  The ICMA implement the political target in the covered sectors and can dynamically revise the EU ETS cap to:  
  - Ensure consistency with other policy instruments over time.  
  - Control interactions with offsets and non-EU ETS allowances.  
  No need for price corridors or price management reserve.                                                             |
| Accountability                                 | Periodic hearings by the EU Parliament and the EU Council.  
  Public reporting.                                                                                                        |
The reform in practice

The mandate could be given to an existing organization (energy regulator?) or to a dedicated organism (politically independent and resilient)

The mandate should be based only on quantities to avoid any artificial setting of a price disconnected from markets fundamentals

No need for secondary market intervention, price collar or price management reserve

A different look at the past:

• Economic crisis: no change to the cap (normal/desirable equilibrium change)
• Early auctions/backloading debate: automatically dealt with by shifting forward/backward the auction calendar (no change to the cap)
• Energy efficiency interactions: immediate review leading to an adjustment of the long term cap (any undesired change is to be compensated)
  → Attention would go not to the price level, but to the examination of selected criteria (market liquidity and compliance behavior, effect on emission trajectories, effect on low-carbon investments, on competitiveness...)


Conclusions

Current ETS framework is rigid and cannot be adequately adapted to changes in the policy environment. At risk: economically efficient energy and environmental transition in Europe

Aim of the reform: clarifying the role and ensuring consistency of different policies to reach a common target. Aim is not to change the ETS constraint, but to maintain the constraint over time as assigned by the public authority

Intervention framework should be politically sound and resilient: creation of an independent regulator as on many other markets

Requires:
- Much more information and evaluation than what is available today
- More visibility on the longer term reduction target than what is available today
Thank you for your attention

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Banking in the US SO₂ market

Banking = between 60% and 140% of annual emissions

Banking = between 17% and 94% of annual emissions

Source: EPA, 2010 (http://www.epa.gov/airmarkets/progress/ARP09_2.html) and Climate Economics Chair from CITL, 2013 (estimates for 2012)
### ZEPHYR model simulations

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Prix en 2015</th>
<th>Prix en 2020</th>
<th>EU auction revenus in P3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference</td>
<td>6 €/tCO₂</td>
<td>13 €/tCO₂</td>
<td>78 G€</td>
</tr>
<tr>
<td>Backloading only</td>
<td>16 €/tCO₂</td>
<td>3 €/tCO₂</td>
<td>92 G€</td>
</tr>
<tr>
<td>(a) -34% in 2020</td>
<td>17 €/tCO₂</td>
<td>27 €/tCO₂</td>
<td>187 G€</td>
</tr>
<tr>
<td>(b)+(c) Retirement in Phase 3 and revision of the linear reduction factor in Phase 4 compatible with Roadmap</td>
<td>16 €/tCO₂</td>
<td>24 €/tCO₂</td>
<td>176 G€</td>
</tr>
</tbody>
</table>

- A back-loading is not useful unless it leads to a change in the cap
- Only the options that change the long term cap have a lasting effect on the price
- The proposals are limited by a taboo on governance issues, which make a dynamic management of the supply impossible in the short term (auctions) and in the medium and long term (adjustments to the cap)
• “The European CO₂ allowances market: issues in the transition to Phase III », Christian de Perthuis and Raphaël Trotignon, Information and debates N 14, Climate Economics Chair, March 2012
  http://www.chaireeconomieduclimat.org/?page_id=3038&lang=en
  http://www.chaireeconomieduclimat.org/?page_id=3554&lang=en