Emissions Trading in the EU after 2012 - some positive predictions and normative reflections

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- Frank J. Convery, Heritage Trust Professor of Environmental Policy, UCD Dublin frank.convery@ucd.ie

Key Question

What will the emissions trading in the European Union look like ten years from now?

Evidence from EU and US

Europe

1. Changes made for the Kyoto phase (2008-12).

2. Article 30

European Commission to review the application of EU ETS
Accompanied by proposals for revision as appropriate.

Consultancy reports commissioned from McKinsey/Ecofys

Steps

- **Article 30 Report**
- Communication from the Commission to the Council, the European Parliament and the European Economic and Social Committee and the Committee of the Regions – 'Building a global market – Report pursuant to Article 30 of Directive 2003/87/87/EC' COM(2006)676 final, 13 November 2006.

- Key Decision in Report
- Focus on post 2012
- Initiate deliberations
- Report before end 2007
- An ECCP Working Group on Emissions Trading
- chaired by Jos Delbeke including Member States, key sectoral interests, non governmental representative and a few academics

Workshops (March – June 2007)

- Scope (including the definition of ‘combustion’),
- Further Harmonisation,
- Robust Compliance and Enforcement,
- Linkage with other emission schemes.
- See: See http://ec.europa.eu/environment/climat/emission/review_en.htm for minutes

The US

Bingaman Specter proposal as a proxy for likely emissions trading activity by 2012

The Low Carbon Economy Act of 2007 introduced in July 2007

A. Lessons we chose to learn *for* the Kyoto phase *from* experience in the Pilot phase

- Can be done
- Market clearing price emerged
- Electricity prices rose to reflect opportunity costs of allowance price
- Some abatement (mainly merit order adjustments)
- Substantial rents generated
- Sharp downward price adjustment April 07

Lessons and policy actions for 2008-12

- **Supply adjusted to support price**
- Commission decided that allocations had been too generous in the pilot phase, and reduced volume for the second phase, and this is reflected in the future price of allowances
- 2008 price **€21.75** ($30.45) per tonne of CO_2
- Principle that supply needs to be sufficiently restricted to achieve a ‘reasonable’ allowance price seems to be widely accepted.

Rent capture:

- Evidence that some utilities were capturing significant rents – some being able to pass 50-75 per cent of opportunity cost of allowances through in electricity price –
- **Auctioning**
- Substantially increased auctioning for the Kyoto phase, with major countries Germany (8.8 per cent), UK (7.0 per cent) and Italy (5.8 per cent)

- German annual volume (453 X 0.088) = 40 million tonnes valued (x 21.75) yielding €870 million rent annually over 5 years

B. Some Positive Predictions from Europe for post- 2012.

- **The Scheme will continue**

independently of developments at UNFCCC and in the US

Article 30 report

- Emissions trading is ‘an essential instrument to achieve the *medium and long term* (italics added) emission reductions that are necessary to stabilise greenhouse gas concentrations in the atmosphere,’
- High Level Group on Competitiveness, Energy and the Environment ‘confirms its preference for a well-functioning EU ETS as a central instrument for greenhouse gas reductions’.
- The next trading period is likely to be 2013-2020, in part because 2020 is end point the Heads of State chose for their 20/30 per cent reduction (below 1990) target, set in a longer-term framework.

More Implications – Article 30 report and Workshops

- **Allocation will be further tightened and centralised – probably an EU Cap (as compared with an aggregation of Member State caps)** driven by the 20 per cent reduction commitment.
- **Globalisation of the market is a core objective:**

‘Building a Global Market’ is the title of the report.

- Provisions to allow linking emissions trading schemes to ‘other mandatory emission trading schemes in third countries capping absolute emissions at national or regional level’.

More Implications of Article 30 and Workshops

Forestry and Land Use will be parked pending outcome of UNFCCC negotiations.

'EU is engaged in discussions on a number of approaches to land use, land use change and forestry from 2013 under the UNFCCC'

The Scope will be widened

Include N_2O and carbon capture and storage, the definition of combustion installations will be unambiguous and process emissions will be included.

For activities not included, 'do nothing' is not the counterfactual – other instruments will have to be mobilised so that they can make their contribution to the 20/30 per cent target.

Unlikely to be extended to road transport – unless as part of a domestic offset scheme - and if it were, there would be no compensating reduction in excise or other duties.

Some new Entrants will have to buy allowances.

- ‘Having new entrants buy allowances in the market or in an auction is in accordance with the principle of equal treatment.’
- Will apply for sure to the power sector
- New Entrant Reserve if it exists will be limited and its structure and scope defined by the Commission

There will be further ‘harmonisation’

- Centralisation of power with the Commission
- Setting allowance allocation envelopes
- Establishing rules for monitoring verification and enforcement and for new entrant reserves, Ensuring information flows.

Monitoring Compliance and Enforcement provisions strengthened

- \- perhaps specified in a Regulation with the force of EU law, with more harmonisation by the Commission.
- **Information flows will be improved**
- ‘cost effective solutions for providing information to the market on a more structured and regular basis so as to ensure optimal market transparency.’
- Prevent the equivalent of the April 06 price shock.

Auctioning

- Expand as a share of the allowance allocation
- Experience in the Kyoto phase an important determinant of the extent to which it increases.
- **Domestic offsets** will be allowed, initially on a pilot basis.
- In spite of some sectoral pressure, the system will continue to be **cap and trade** rather than baseline and credit.

US ETS

- The **Low Carbon Economy Act of 2007**
- Introduced July 11 2007 by Senator Bingaman (D-NM) and Senator Specter (R-PA)

- Draws on the recommendations of the *National Commission on Energy Policy* recommendations issued in December 2004
- Informed by a series of workshops and briefings were conducted based on a White Paper issued in early 2006.

US ETS Features

Absolute cap covering all emissions for every year from 2012 to 2030

6.65 billion tonnes of CO_2 equivalent in 2012 declining to 4.89 billion tonnes in 2030

[Compares with about 2 billion tonnes annually in EU ETS]

The long term overall target is a 60 per cent reduction by 2050.

A **safety valve** of $12 per tonne (in 2012, increasing at 5 per cent above inflation thereafter)

Technology Accelerator Payment (‘TAP’) - revenues - used for technology development and deployment.

US ETS Features 2

The **non-compliance penalty** is set at three times the TAP price.

Initial Allocation (per cent of total in brackets)

Auction (24)

Free allocation to industry (53)

Free allocation basis average historical 2004-06 carbon content - but declining towards zero in 2043, with auction share increasing commensurately.

Individual States (9) –auctioned by the States?

Early reduction set aside (1)

Agricultural sequestration (5)

CCS Bonus Allowance Set-Aside (8)

Total (100)

US ETS Features 3

Auction Revenues

Placed in separate funds

- Technology development (divided as follows: 45% for zero- or low-carbon energy technologies, 28% for advanced coal technology and sequestration technologies, 7% for cellulosic biomass development for transportation fuels, 20% for advanced technology vehicle manufacturer incentives, 20% for international technology deployment)
- Adaptation (purposes also prescribed)
- Low-income assistance.

US ETS Features 4

- Provisions for:
- New entrant reserves
- **Periodic Interagency review**, dealing with
- competitive effects
- *linkage to foreign cap-and-trade systems* (italics added)
- recognition of off-set projects outside the US
- various modifications of existing provisions.
- Interagency Review will occur not later than Jan 15, 2016, and every five years thereafter.
- . Use of foreign credits - cannot use international offset projects for more than 10% of its compliance requirement.

Trade Sanctions Option

- Beginning in 2019, if the President determines that a major trading partner is not taking comparable action, he may require GHG intensive imports from that country to carry *sufficient allowances* (italics added) purchased from a special international reserve allowance pool at the current US price.

Issues and Implications for EU ETS

Relatively high proportion of allowances auctioned.

It remains to be seen how long this survives the press of interest groups

Careful delineation of beneficiaries of the revenue will create a countervailing pressure.

The EU experience with rent capture by utilities from free allocation was probably salient in informing this decision.

Overt linkage to technology support, adaptation and equity.

This revenue recycling may give the US scheme a ‘double dividend’ on abatement; this feature is lacking in EU ETS

Issues and Implications 2

- **Linkage to foreign schemes allowed only if the latter do not use international offsets exceeding 10 per cent of their compliance requirement.**
- This is symmetric with some voices in the EU arguing for capping the share of CDM in EU ETS.

- **The long time horizon**
- Key target is 60 per cent reduction from 2006 emissions by 2050, and the various design features take a similarly long horizon.
- **Use of allowance purchase requirement for imports from countries not 'doing their bit'** – for which read mainly China.
- An interesting variant on the 'border tax adjustment' discussion in Europe; in the US case, presumably the $12 per tonne becomes the 'tax'

Issues and Implications 3

A five year Interagency review procedure

Key engine for addressing linkage

Can also propose amendments to the scheme

Must address the trade issue by examining whether the five largest trading partners of the US have taken comparable action to reduce GHG emissions.

This review has overtones of the ‘pilot’ character of the EU ETS scheme and Article 30.

The inclusion of sequestration in agriculture, albeit at a modest level (5%).

EU ETS awaits clarification from the UNFCCC process before deciding, but is likely to make some ‘capped’ concessions in this regard.

Issues and Implications 4

The overt emphasis on carbon capture and storage (CCS)

Likely to be reflected in EU ETS post 2012.

The price cap of $12 rising in real terms at 5 per cent per annum

Biggest divergence from EU ETS.

Implies that

(there will not be any linkage until the Inter-agency review group addresses the issue in 2016, and if

if China and others chose to introduce trading schemes with foreign linkage, there are likely to consider US ETS as trading partner rather than EU ETS.

If China and other major trading partners do not make equivalent effort, a tariff of €12 per tonne equivalent

Some Normative Conclusions

- The EU ETS moving towards a system that is both more environmentally effective and economically efficient
- The pilot phase has a very useful test bed.
- Provisions in Kyoto period and post 2012 will enhance performance
- Likely that both CDM and sequestration from land use will be capped
- Supply restricted to ensure that a real price in the order of €30-35 per tonne will be characteristic

Some Normative 2Conclusions

- Some **good ideas** have travelled from Europe to the US, namely:
- the importance of auctioning a significant share of the allowances
- a period of review
- the potential for linkage.

- One **bad idea** from Europe – the use of new entrant reserve – has crossed the Atlantic

The US – brings some powerful ideas to the table

- inclusivity of the scheme
- the direct linkage of trading to both stimulus of alternative technologies
- and the potential requirement that allowances be required to be purchased for imports from countries not taking comparable action.

But..

Use of a price cap is a bad idea – it is not wise to substitute the judgement of politicians and bureaucrats for that of the market.

An EU ETS price of €25-35 will be over 4 times the US ceiling

If the latter is also adopted by China, then this can become a potentially serious competitiveness issue for Europe.

Thanks