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Review of pilot phase of European Union Emissions Trading Scheme finds it to be successful and a key to future global climate-change negotiations

Articles published today in the first issue of new journal, *Review of Environmental Economics and Policy*[1], describe the European Union's Emissions Trading Scheme (EU ETS) as by far the most significant accomplishment in climate policy to date, concluding that it will be central to future global climate negotiations. However since the EU accounts for only 20 per cent of global greenhouse gas emissions, the authors also conclude a global framework for managing climate policy is required in the long term.

The articles - by leading environmental economists[2] - form a symposium, reviewing the performance of the EU ETS over the first two years of its three-year trial period between 2005 and 2007. Denny Ellerman, who coordinated the symposium, provides an introduction and overview to the EU ETS in *The European Union Emissions Trading Scheme: Origins, Allocation, and Early Results*, co-authored with Barbara Buchner. The paper by Convery and Redmond, *Market and Price Developments in the European Union Emissions Trading Scheme*, further looks at the market for allowances; the main features of the EU ETS; its institutional and legal context; and likely future developments. The third paper, by Kruger, Oates and Pizer: *Decentralization in the EU Emissions Trading Scheme and Lessons for Global Policy*, additionally discusses the unique decentralized structure of the EU ETS and its implications for both the functioning of the EU ETS and the prospects for a more global emissions-trading regime.

Viewed as one of the most important environmental policy developments of the past decade, the EU ETS is an ambitious effort by the EU to correct for the market failure that surrounds climate change, and to deliver the EU's commitments to reduce carbon dioxide (CO₂) emissions under the Kyoto Protocol. It aims to address the reduction of emissions of CO₂ by allowing energy-intensive industrial plants and electric utilities to trade rights or allowances to emit CO₂. Ellerman and Buchner focus on the allocation of the allowances. They note that, although there is evidence that some Member States and sectors received over-generous allowances, the main goal of limiting CO₂ emissions was achieved. The EU has succeeded in placing a price on CO₂ that starts to reflect the scarce capacity of the earth's atmosphere to absorb more greenhouse gas emissions.

With coverage of about half the CO₂ emissions originating from a region of the world that accounts for 20% of global GDP and 17% of the world's energy-related CO₂ emissions, the EU ETS is by far the largest emissions-trading scheme in the world. According to Convery and Redmond, the value of traded volume to date is estimated at €14.7 billion (\$18.86 billion). More importantly, the price signal is a transnational one across European nations of significantly different economic circumstances and extending beyond Europe through the Clean Development Mechanism.

The symposium discusses the key role played by the European Commission in successfully establishing the EU ETS. The Commission's primary role was to enforce scarcity of the allowances to ensure that they were sufficiently valuable to be traded. Individual Member States made proposals to the Commission for the number of

allowances to be distributed in each country. The Commission reduced the proposed number of allowances of 14 of the 25 Member States by a combined annual amount of almost 100 million tonnes of CO₂.

Ellerman and Buchner review the release of emissions data for 2005 – the first year of the scheme – which showed allowances exceeded emissions by about 80 million tonnes of CO₂, or about 4% of the EU's intended maximum emissions. Emissions exceeded allowances in only 6 of the 25 EU countries: UK, Ireland, Spain, Italy, Austria and Greece. Installations may have reduced their emissions as a result of improvements and/or investments in energy efficiency or switching to less CO₂-intensive fuel types. Ellerman and Buchner find that the excess of allowances over emissions can be attributed both to over-allocation in some countries and sectors and to emission reductions in response to the price of allowances in 2005.

Allowance prices over the course of the first official year of the EU ETS surpassed all expectations of market analysts and academics. Between July 2005 and April 2006, the allowance price consistently traded over the €21-€30 range. The persistently high price, in a market characterized by a large volume of trades between sophisticated players, is strong evidence that emissions abatement is taking place. Convery and Redmond's analysis of the historical emissions data, and allowing for the growth in emissions that accompanies growth in GDP, suggests that abatement of about 7% may have been achieved. The Commission intends to encourage further abatement by making the 2008-12 allowance totals lower than the 2005-07 totals, and it has decided to reduce the allowance totals proposed by 10 Member States to a level that is more than 12% lower than their trial-period totals.

The symposium concludes that the EU ETS is important because of its size and the number of countries participating. It shows that emissions trading can be done, and will be hard to ignore in future climate negotiations. If CO₂ emissions are to be significantly reduced globally then an emissions-reducing system would need to operate at the global level. One problem in achieving this is that there is no equivalent to the Commission at a global level to play the coordinating role. More will be needed to create the community of interest and practical advantage that would cause countries such as China and India to accept meaningful constraints. However, Ellerman and Buchner note that the East-West divide within the EU bears some similarity to the global North-South divide, and there are some positive indications that the EU ETS has set the groundwork for a global system.

The challenges of establishing a global system are likely to be formidable. On the enforcement and institution side, this suggests that broad-based emissions trading within developing countries may not be a realistic goal in the near term, and other avenues for engagement and trade need to be explored.

In the short term, other national programmes are unlikely to link to the EU ETS, but Kruger, Oates and Pizer suggest price harmonization is an alternative. Countries could set their domestic policies in ways that recognize and respond to the efforts in other countries in an effort to harmonize marginal costs, and there is some evidence that this is already happening based on proposals in countries including New Zealand, Canada and Japan.

The long-term future of the EU ETS looks promising, but it remains the case that the EU accounts for not much more than 20 per cent of global greenhouse gas emissions, and this share is set to shrink over time. Convery and Redmond conclude that, to some extent, the EU ETS represents an act of faith that its leadership will result in a wider constituency for effective action in the longer term. Unless a global

framework emerges out of the current discussions that is 'incentive-compatible' with key players, such optimism may prove to be misplaced.

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Notes to editors

1. The new journal, the *Review of Environmental Economics and Policy*, is edited by Dr. Robert Stavins (Harvard University), with co-editors Carlo Carraro (University of Venice) and Charles Kolstad (University of California, Santa Barbara), with an international editorial board of 26 leading environmental economists. *Review of Environmental Economics and Policy* is published by Oxford Journals, a division of Oxford University Press[4].

2. The contributors to the symposium are: Dr Denny Ellerman (MIT), Dr Barbara Buchner (Fondazione Eni Enrico Mattei), Professor Frank Convery and Mr Luke Redmond (both of University College Dublin), Mr Joseph Kruger (National Commission on Energy Policy), and Professor Wallace Oates (University of Maryland) and Dr William Pizer (Resources for the Future)

3. PDF version of the whole issue is available online now at:

http://www.oxfordjournals.org/our_journals/reep/press_releases/freepdf/issue1.pdf

The PDF is also available now from Kirsty Luff, email: kirsty.luff@oxfordjournals.org

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4. [Oxford University Press](http://www.oxfordjournals.org) (OUP), a department of the University of Oxford, is the world's largest and most international university press. Founded in 1478, it currently publishes more than 4,500 new books a year, has a presence in over fifty countries, and employs some 3,700 people worldwide. It has become familiar to millions through a diverse publishing programme that includes scholarly works in all academic disciplines, bibles, music, school and college textbooks, children's books, materials for teaching English as a foreign language, business books, dictionaries and reference books, and journals.

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