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CARBON EMISSIONS TRADING: THE EUROPEAN UNION SHOULD AUCTION PERMITS, NOT GIVE THEM TO FIRMS FOR FREE

European governments should auction most of the permits in the European Union's carbon dioxide emissions trading scheme (ETS), according to new research by **Robert Ritz** and colleagues at Oxford University.

Their study, to be presented to the Royal Economic Society's annual conference at the University of Warwick later this week, shows that the current plan to auction only up to 10% of the allowances in 2008-2012, with the rest distributed to firms for free, amounts to a substantial subsidy to firms, financed ultimately by the taxpayer.

Auctioning off a majority of ETS permits could be done without affecting firm profits and shareholder value. Such a policy would also raise substantial amounts of additional government revenue that could be devoted to investment in technology to solve climate change problems.

The EU's ETS was launched in January 2005 to create a market for trading carbon emissions. In the current Phase 1 of the scheme, almost all permits were freely allocated to firms based on historical emissions, a practice known as 'grandfathering'. The annual value of the permits distributed to firms is €30 billion, based on forward prices of €14/tCO₂e and total annual ETS allocations of 2,200MtCO₂e.

To avoid financial sanctions, firms must hold a sufficient number of permits to cover their current emissions. Permits are tradable on a number of designated exchanges, so a firm that requires more permits than its allocation can buy from others with surplus permits.

While some free allocation of permits may be needed to preserve firm profits and ensure 'buy in' from industry and investors, there have been widespread concerns that the current design of the ETS has left firms with 'windfall profits'. The research develops a method of estimating the proportion of permits that need to be grandfathered to ensure a neutral effect on firm profits in an industry.

For UK electricity generators, it finds that the level of grandfathering required for this is essentially 0%, implying that the industry could afford to buy all the permits it needs and still preserve its profits. For the UK cement industry, the research estimates that the profit-neutral level of grandfathering is around 40%, while it is around 25% for the EU-wide newsprint and steel industries.

These results suggest that selling the majority of permits to firms at auction will in most cases be enough to preserve firm profits and shareholder value. Such a policy would also raise substantial amounts of additional government revenue that could be devoted to investment in technology to solve climate change problems.

The three key factors driving profit-neutral grandfathering for an industry are:

- (1) the number of firms in the industry;
- (2) the distribution of firm market shares in the industry; and
- (3) the rate of pass-through from variable costs to market price.

Industries with significant international competition from firms outside the EU ETS may need more grandfathering to preserve profits, while the opportunity to abate emissions by switching to cleaner technologies reduces the profit-neutral level of grandfathering.

The allocation of emissions permits and inclusion of additional industries in the EU ETS, especially from the transport sector, will be major items on the agenda of future European climate policy.

ENDS

Notes for editors: 'Emissions Trading and Profit-neutral Grandfathering' by Cameron Hepburn, John Quah and Robert Ritz will be presented at the Royal Economic Society's 2007 Annual Conference at the University of Warwick, 11-13 April.

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