Energy and Climate Exchange Series @ Bruegel

Identifying the Causal Effects of Carbon Taxes: An Evaluation of the UK Climate Change Levy

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28 September 2009, Bruegel

Launching the "*Energy and Climate Exchange* Series *@ Bruegel"*, Ralf Martin (Research Economist at the Centre for Economic Performance of the London School of Economics) presented the results of "The Impacts of the Climate Change Levy (CCL) on Business: Evidence from Microdata".

In his presentation, Martin provided a confirmation to the intuition shared by many economists that a carbon price signal, by internalizing externalities, is the key to an efficient environmental policy. He also answered concerns on the potential negative effects of such a tax on employment, production or productivity.

Main results can be summarized as follows: i) firms that paid the tax reduced their energy intensity and energy expenditures more; ii) no statistically significant effect of the tax on employment, gross output or total factor productivity was found; iii)firms that paid the tax patented more; iv) the implied energy use/price elasticity is 1.7, above previous estimations in the literature; v) further cuts in energy use and carbon emissions could be achieved without jeopardizing economic performance with a full rate of the CCL for all businesses.

The positive and significant effect on innovation is good news since it means it would be advantageous for an economy to implement such a tax, even if it is the only one to do it.

Some attendees were sceptical about the ability of the econometric model to distinguish between CCL effects on energy consumption reduction and effects of long-run structural environmental policies. Another concern in the assembly was the high level of energy/price elasticity, unique in the literature so far and having important policy implications.