Border Carbon Adjustments and Foreign Direct Investment with Technology Transfer

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Abstract

Implementing a carbon tax in a country may cause production migration and carbon leakage to another country that does not have a comparable carbon tax. To tackle the leakage problem, Border Carbon Adjustments (BCAs) are proposed, i.e., carbon tariffs on imports and carbon tax refunds for exports. This paper develops a North-South oligopoly model in which a firm can choose production location and emissions technology, namely producing in the North or making FDI in the South and adopting “clean” or “dirty” technology. We show that, even under a North’s BCA policy that eliminates South’s competitive advantage based on its lower carbon tax, a Northern unilateral carbon tax could induce that country’s firm to engage in FDI in the South. Such FDI, however, could result in a reduction in global emissions because the BCA policy provides an incentive for the firm to adopt “clean” technology in the South. We also show that the North’s welfare-maximizing carbon tax could induce its firm to make FDI with clean technology transfer to the South.

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