

Can Consumer Responsibility Help Address Carbon Leakage Concerns? An Economic Analysis of Participation vs. Non-Participation in a Mitigation Regime

Topic: Consumer responsibility and households' carbon emissions

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Competitiveness and carbon leakage concerns are at the center of policy debates for implementing carbon pricing policy to achieve the mitigation targets in Annex B countries. Recently Japan announced a plan to implement a carbon tax system from 2011 and one of the major concerns is industrial competitiveness. More policy attentions have been given to border adjustment measures to address these concerns. Accounting for emissions embodied in imports subjecting to adjustment at the border is one of the technical and practical challenges. Together with the problems related to current national inventory based on producer responsibility, it is rational to consider consumption-based national inventory to account for emissions embodied in international trade. In this paper, we examine the impacts of a change in the national emissions accounting principle from producer responsibility to consumer responsibility on national welfare, international trade, competitiveness and carbon leakage. We conduct an economic analysis for Japan and China by applying linear programming to a two-region input-output model.

Preliminary results indicate that without full participation of large emitters in a global mitigation regime, the international competitiveness and national welfare of Japan will be affected negatively. A change from producer responsibility to consumer responsibility may have potential impacts on international trade and may function as an effective measure to reduce carbon leakage.