

Measurement of the Marginal Abatement Costs and the Impacts of Reduction of CO₂ Emission on World Fuel Markets

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This study quantitatively analyzes the marginal abatement costs of CO₂ emission of EU and Japan, and the impacts of reduction of CO₂ emission on world primary energy market using our econometric model, WEPM* which endogenously determines the world primary energy prices from the world demand and supply balances. We found that the marginal abatement costs are very different among nations, and if EU4 and Japan cut CO₂ Emission simultaneously by using only some domestic measures, international coal and crude oil prices will fall by 8.9% and 7.3% respectively. And 35% of total CO₂ reduction in Japan and EU4 will be lost by "carbon leakage".

Keywords:

Energy Demand and supply, Marginal Abatement cost, Fuel Price, Carbon leakage

* Hoshino, Y., Y. Nagata and N. Sakurai (2003), "Development of World Energy Prices Model", *Proceedings of 26th IAEE International conference in Prague, IAEE*