

Post-Kyoto Climate Negotiations: A Dynamic Game Approach Focusing on Developing and Oil Exporting Countries

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The enlargement of the climate coalition to developing countries in post-Kyoto negotiations will be a difficult task. Most of developing countries are opposed to any commitment regarding absolute emissions caps as long as industrialized countries do not make real progress toward the actual goal of cutting their GHG emissions. Oil exporting countries, in particular those belonging to OPEC, would obviously challenge any agreement that does not take into account a mechanism aiming at compensate the welfare loss incurred through change in the terms of trade.

In that context, one should imagine a climate architecture that would create incentives toward developing and oil exporting countries participation. In this paper, a dynamic game is formulated where the players are developing countries that may choose to enter a Post-Kyoto agreement, and the payoffs are the welfare gains of these countries, evaluated from a multi-country computable general equilibrium model (GEMINI-E3). We find that some developing countries might accept GHG emission caps as long as they can participate an emission trading regime.

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Climate Change, Welfare Cost, Equity, Terms of Trade, Cournot Equilibrium

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