

Move Together or Drop Out? The Impact of “Going Further Ahead” by Front-runners of Climate Action *

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Abstract

Although it has been several decades since global environmental issues were recognized and the need for multilateral cooperation was acknowledged, it is difficult to say that multilateral cooperation schemes are functioning properly. In this situation, certain groups of countries, such as the EU and the Powering Past Coal Alliance (PPCA), have taken the lead in introducing strict carbon taxes. Then, how do other countries respond to the decisions made by these leading countries? Do they move together and raise their carbon tax rates, or do they free-ride by lowering their carbon tax rates? To answer this question, we analyze the responses of other countries using a quantitative trade model that incorporates carbon dioxide emissions and the negative externality caused by them. Our findings reveal that many countries raise their carbon tax rates in line with the policies of PPCA and EU while countries with large economic size seek to lower their tax rates. Moreover, our analysis also examines the impacts on carbon dioxide emissions and welfare, and shows that the rates of increase in tax rates in followers are “excessively” large, which can result in the decrease in the global welfare.

Keywords: Carbon pricing, leakage, optimal carbon tax, quantitative trade model.

JEL classification: F17, F18, Q54, Q56.

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