

Long-run Production Possibility Frontier and International Trade in a Synthesized Brander–Taylor–Copeland–Taylor Model

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Abstract

We develop a unified model that synthesizes two types of models in trade and environmental literature: one is related to renewable resources extraction and the other is on pollution emission. Three main messages are obtained. First, the type of the environmentally sensitive sector (dirtier or cleaner) remains unchanged in steady state, which determines the long-run response to trade. Second, trade between two countries of different type (defined according to the type of sectors) may harm both countries in the long run. Third, a change in country characteristic parameters (e.g., factor endowment) may alter the type of a country, causing dramatical change in trade patterns.

Keywords: Environment; country type; two-country model

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