The Equilibrium Existence and Uniqueness in International Public Two–Good Model

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Abstract

The international public two-good model is an extension of the international public one-good model, allowing for different productivities of producing two public goods across countries. By extending the proof of equilibrium existence and uniqueness and algorithm of Miyakoshi and Suzuki (2011a,b) with one public good, this paper incorporates two public goods into their model and develops an international two public good model, where in general an equilibrium is not unique. We give geometric conditions for multiple equilibriums and analyze the effect of the income transfer.

Keywords: international public two-good model; equilibrium; existence; uniqueness