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INTERNATIONAL REAL BUSINESS CYCLE MODELS WITH INCOMPLETE INFORMATION\

Abstract:

Standard international real business cycle (IRBC) models formulated by Backus, Kehoe, and Kydland (BKK, 1992) have been considered a natural starting point to assess the quantitative implications of dynamic stochastic general equilibrium (DSGE) models in an open economy environment. Since the standard IRBC model under assumptions of flexible prices and perfect competition cannot replicate all the observed characteristics of international business cycles, a number of extended models with more realistic features have been developed in the past two decades. We introduce a noisy information structure into an otherwise standard international real business cycle model with two countries. When domestic firms observe current foreign technology with some noise, predictions of the model on international correlation can be very different from those of a standard perfect information model. We show that the model can explain: (i) positive output correlation both in complete and incomplete market models; (ii) consumption correlation smaller than output correlation with an introduction of information-constrained consumers; and (iii) observation of both positive and negative productivity-hours correlation in two countries.

Keywords:

Cross-country correlations; Imperfect information; Incomplete markets

JEL Classification: E32, F41, G15