Public Abstract

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Title: A Structural Model of the International Coffee Sector: An Econometric Investigation

The primary objective of this research was to build an econometric model of the international coffee sector that could be used to simulate alternative scenarios including macroeconomic changes, potential technological advancements, policy changes and in-country growing season impacts. The commodity coverage of the study included green coffee production and consumption of coffee at the combined roasted and soluble level. Specific country coverage included Brazil, Colombia, the European Union, Honduras, India, Indonesia, Japan, Mexico, the United States and Vietnam. An additional twenty-four individual countries and five other regional aggregates were constructed to capture the rest of the world, but were considered exogenous for the scope of this project.

In total, 130 structural equations were estimated. Given structural equations and corresponding identities, the total system represents 196 equations and approximately 450 data observations per year using annual data sets on a crop year basis. Following the estimation process the model was historically simulated from 1995 to 2009 and tested using impact analysis and shocking the model with results compared to a baseline projection. The historical tests and projection simulations were an iterative process. In the final iteration the model performed well and solved to a reasonable solution.