

What is the appropriate counterfactual when estimating effects of multilateral trade policy reform?

Kym Anderson

University of Adelaide, Australian National University and CEPR

kym.anderson@adelaide.edu.au

Hans Grinsted Jensen

University of Copenhagen and University of Adelaide

hans@ifro.ku.dk

Signe Nelgen

International Livestock Research Institute

signe.nelgen@gmail.com

and

Anna Strutt

University of Waikato and University of Adelaide

astrutt@waikato.ac.nz

Funding support from the Asian Development Bank, the Australian Research Council, the Rural Industries Research and Development Corporation and the University of Copenhagen is gratefully acknowledged. Views expressed are the authors' alone.

Abstract

Multilateral trade reforms, such as may emerge from the WTO's Doha Development Agenda (DDA), tend to be phased in over a decade or so after agreement is reached. Given the DDA's slow progress, that implementation may not be completed before the end of the next decade. Ex ante analysis of the DDA's possible effects requires first modelling the world economy to 2030 and, in that process, projecting what trade-related policies would be by then if the DDA failed. Typically, modelers assume the counterfactual policy regime to be the status quo. Yet we know developing country governments tend to switch from taxing to assisting farmers in the course of economic development.

This paper reveals how much difference it can make to include political economy-determined agricultural protection growth in the baseline projection. We reveal that difference by projecting the world economy to 2030 using the GTAP global economywide model with those two alternative policy regimes and then simulating a move to free trade in each of those two cases. To implement the alternative policy regimes, a series of national political econometric equations is used to project the policy changes for the most important agricultural crop and livestock products in a sample of 82 countries. With these equations and the projections of such variables as GDP and population to 2030, potential agricultural protection rates in 2030 are estimated. A prior step is involved in the analysis though. The GTAP model's 2007 protection database has poor coverage of non-tariff barriers to agricultural imports and of export taxes. We therefore draw on the World Bank's Distortions to Agricultural Incentives (DAI) database for 82 countries and use an Altertax procedure to recalibrate the version 8.1 GTAP 2007 database with those additional price-distortion data.

The effects of removing the counterfactual price distortions in 2030 are shown to be much larger in the case where agricultural protection grows endogenously than in the case assuming no policy changes over the projection period. This suggests that the traditional way of estimating effects of a multilateral agricultural trade agreement understates considerably the potential trade and welfare gains.

Keywords: Agricultural protection growth; Multilateral trade reform; Global economy-wide model projections

JEL codes: D58, F13, F15, F17, Q17

Table of Contents

1. Introduction
2. Global distortions to agricultural incentives
3. Projecting developing country nominal rates of assistance from 2007 to 2030
4. Modelling trade liberalization and the impact of increased nominal rates of assistance
5. Analysis of policy implications
6. Conclusions