

GTAP Board Report
International Food Policy Research Institute
July 2013 – June 2014

The Globalization and Markets (GRP2) theme at IFPRI's Markets, Trade and Institution Division (MTID) relies on the GTAP database for its research on global trade-related issues. The team studies the policies and institutions needed to manage the globalization of the food system in a pro-poor fashion. The research emphasizes global agricultural trade negotiations, linkages between domestic policies and globalization, the impact of developed-country policies on developing-country food security, and pro-poor policies along the entire food chain, given the growing importance of consumers and retail industries as food system drivers. The potential impact of programs supporting biofuels development in rich countries on trade and food security in developing countries and on CO₂ emissions are also investigated under this theme. The globalization and markets team is currently composed of: Antoine Bouet, Lauren Deason, Betina Dimaranan, David Laborde, Kathryn Kincheloe-Pace, Sam Morley, David Orden, Valeiria Pineiro, Devesh Roy, Marcelle Thomas, Fousseini Traore.

At IFPRI's Development Strategy and Governance Division (DSGD) Xinshen Diao, Guylain Ngeleza Alejandro Nin-Pratt, Sherman Robinson and James Thurlow, also work on CGE studies occasionally based on the GTAP database or the GTAP model.

- ***MIRAGE-HH (Mirage Households)***

The objective of this research is to develop a version of the MIRAGE model which includes households heterogeneity in order to studying the impact of trade liberalization on real income and welfare at the household level. In six developing countries (Brazil, Indonesia, Pakistan, Tanzania, Uruguay and Vietnam), the model disaggregates the representative household into up to 40-120 households by country. The sources of income and consumption structure reflect disaggregated statistical information coming from households' surveys. The new model better captures the behavior of the public agent in terms of revenues collected and in terms of expenditures. This new version of MIRAGE takes into account the reaction of households to these shocks in an integrated and consistent framework. We study the impact of full trade liberalization on these households. This study tends to conclude that: (i) while the impact of full trade liberalization may be small at the macroeconomic level, the effect on households' real income may be quite substantial at the household level with a great heterogeneity in terms of results; (ii) the major channel of heterogeneity of the impact of trade liberalization on households' real income is productive factors' remuneration while the impact of consumption prices of commodities is limited; (iii) various domestic policies simultaneously implemented to trade liberalization like modification of public transfers to households or changes in income taxation may significantly change the picture and offer compensation for negative effects of this shock or amplify direct impact of full trade liberalization; (iv) the impact of trade reform on poverty and inequality is significant and diverse from one country to the other.

- ***MIRAGE – Migration and Remittances***

The aim of this paper is to review the state of art of the modelling of international migration and private transfers. Two perspectives are developed: a micro-level review of the theoretical foundations of the motivations to migrate and remit, and a macro-level analysis, in which we study how transfers are included in Computable General Equilibrium (CGE) models. Concerning the microeconomic foundations of remittances, we emphasize the distinction made in the

literature between altruism and exchange-motivated decision. As far as CGE models are concerned we reviewed nineteen papers which include remittances in a CGE models and we highlight the main conclusions of this literature as well as the main omissions. While all this literature points out the importance of remittances in terms of understanding poverty impact of trade reforms, the CGE models do not include satisfactorily remittances, at least until now: either they are considered as exogenous or they are supposed to be a fixed proportion of the migrant's income. From this point of view these CGE applications ignore the economic literature on microeconomic foundations of the motivations to remit as well as it ignores the econometric literature on remittances. Finally we propose some solutions to implement a modeling of international migrations and remittances in the MIRAGE model.

Contribution to the African GTAP database (3/4 countries) – James Thurlow, Angel Aguiar

GTAP- and trade-related publications

ARTICLES IN PEER-REVIEWED JOURNALS & CHAPTERS IN COLLECTIVE BOOKS

Bouet A., C. Estrades and D. Laborde, 2013, A Global Assessment of the Economic Effects of Export Taxes, *The World Economy*, 36(10): 1333-1354.

IFPRI AND OTHER DISCUSSION PAPERS

Bouet A., C. Estrades, D. Laborde and Cristina Mitaritonna, 2014, Households heterogeneity in a global CGE model: an illustration with the MIRAGE-HH (MIRAGE-HouseHolds) model, IFPRI Discussion Paper, forthcoming.

Bouet A., E Dienesch, and J. Jarreau, 2014, Modeling migration and remittances in the MIRAGE model, IFPRI Discussion Paper, forthcoming.