



CENTER FOR GLOBAL TRADE ANALYSIS NEWSLETTER

Vol. 3, No. 2, October 2006

CONTENTS:

1. Center News
2. Consortium News
3. Research Highlights
4. Short Courses
5. Conferences
6. Data Base Developments
7. New Resources on the GTAP website
8. Contact Information

Current and back issues of the GTAP newsletter are available online at:
<http://www.gtap.org/about/newsletters.asp>.

MISSION STATEMENT:

The Center for Global Trade Analysis is the publicly funded, university-based home for GTAP (Global Trade Analysis Project), a global network of researchers and policy makers conducting quantitative analysis of international policy issues. Our purpose is to improve the quality of global economy-wide analysis through education and by developing analytical data bases, economic models, and innovative methodologies. Our unique institutional structure enables us to foster collaboration among academia, public sector, and private sectors worldwide.

1. CENTER NEWS

We are delighted to inform you that we have employed a new Program Manager for the Center: Kavitha Muthuraman. Kavitha is a graduate on the Thiagarajar School of Management in India, and has worked both in India and at Purdue University. We are delighted that Kavitha has decided to join the GTAP team and look forward to working with her. Please join us in welcoming her to the Center.

Christophe Gouel spent a one month internship at the Center before moving on to work at CEPII. During his time with the Center, Christophe worked on the Land Use Data Base as well as helped out with preparations for the upcoming Dynamic course.

The GTAP seminar series is a venue for Center staff and graduate students to present their research to faculty, staff, and graduate students in the Center and in the Department of Agricultural Economics, Purdue University. Jason Grant presented “Liberalizing Agricultural Trade Policy in the Doha Development Agenda” on September 15, 2006.

Huey-Lin Lee presented a paper titled "Land Heterogeneity in Determining Climate Change Mitigation Costs", coauthored with Thomas Hertel, Steven Rose (U.S. Environmental Protection Agency) and Brent Sohngen (Ohio State University), at the 2006 AAEA Annual Meeting, Long Beach, CA, July 23-26, 2006.

2. CONSORTIUM NEWS

The GTAP Advisory Board is composed of representatives from consortium member agencies that provide financial support and guidance to the project. More information about the GTAP Consortium is available at: <http://www.gtap.org/about/consortium.asp>.

The next meeting of the GTAP Advisory Board is scheduled for June 4-5, 2007, on the campus of Purdue University, in West Lafayette, IN, USA. More information about the GTAP Advisory Board meeting is available at: http://www.gtap.org/events/Board_Meetings/default.asp.

3. RESEARCH HIGHLIGHTS

Extending General Equilibrium to the Tariff Line: U.S. Dairy in the Doha Development Agenda

by Grant, Jason H., Thomas W. Hertel and Thomas F. Rutherford

Market access has been at the core of eight negotiating rounds of the GATT/WTO. Because of its exclusion from previous GATT rounds leading up to the Uruguay Round, agricultural trade remains heavily protected, characterized by higher tariffs relative to industrial goods, large tariff dispersions, numerous specific tariffs and systems of tariff-rate quotas. This has made the analysis of trade liberalization a formidable task. One, border protection varies across narrowly defined product lines. Two, tariff lines contain both ad valorem and specific duties and in many cases are used in combination with tariff-rate quotas. This is particularly true in international dairy trade and suggests that some tariff lines can not be aggregated for use in multi-sector, multi-region trade models.

We apply a decomposition procedure (“sequential recalibration”) which involves coordinated solution of both partial and general equilibrium (PE and GE) models. This permits us to extend GE analysis to the “tariff line” in selected sectors. A mixed-complementarity

formulation PE model represents both bilateral and multilateral tariff-rate quotas (TRQs) in a disaggregate PE dairy model calibrated to 2001 HS-6 policy levels. Equilibrium outcomes in the PE model are iteratively introduced in a modified GTAP GE model tracking liberalization results from global dairy reform. Our analysis offers a means of quantifying approximation errors in conventional GTAP GE analyses. We also examine TRQ reform options in the context of the WTO negotiations *viz á viz* over-quota tariff reductions, quota expansion, simultaneous liberalizations as well as expanding the Most Favored Nation (MFN) quota.

In this application we find that the conventional GTAP model does a good job of getting aggregate welfare right under a global dairy liberalization when compared to our extended GE model that includes a fully disaggregated dairy sector. However, other variables such as output and trade flows in key exporting countries are more sensitive to standard GE analysis. The results from TRQ reforms indicate that rather substantial expansions to US quota levels do not lead to significant increases in trade although they do preserve, and (in some cases, for modest expansions of the quotas) even increase quota rents. On the other hand, cuts to over-quota tariffs immediately reduce prices and increase trade. Such cuts also erode quota rents immediately, which is one reason they have been opposed by some industry groups. Based on our analysis of the US dairy sector, those interested in expanding trade under the Doha Development Agenda should focus on cutting over-quota tariff rates instead of pushing for quota expansions.

JEL Codes: F01, F17, Q17, Q18

Keywords: agricultural trade, Doha Development Agenda, general equilibrium, mixed-complementarity problem, partial equilibrium, tariff-rate quotas, WTO

4. SHORT COURSES

A Short Course in Dynamic Global Trade Analysis will be held in West Lafayette, IN, USA on the campus of Purdue University from October 6-11, 2006. This course consists of a mix of daily lectures, lab assignments, and informal discussions designed to introduce participants to the basic features of the Dynamic GTAP Model. These activities culminate in a major application undertaken by small groups and presented on the final day of the course. Groups are assigned an instructor who is intimately familiar with their project to act as a resource person. Our goal is for participants to leave with the capability of conducting and analyzing their own GTAP-Dyn simulations. It is expected that participants of this course will have already undertaken the Short Course in Global Trade Analysis. In special cases, participants may also be eligible if they have completed a significant piece of analysis using the Dynamic GTAP Model or another, comparable, general equilibrium model.

The aim of the course is to: (1) introduce participants to a dynamic model designed for conducting global trade analysis in an applied general equilibrium setting, (2) provide participants with ample hands-on training with software that has been tailored for

undertaking analysis using a dynamic recursive model, and (3) give participants the opportunity to interact with economists working on global trade and resource use issues using a dynamic modeling framework. Information about previous and forthcoming dynamic courses is available at: http://www.gtap.org/events/Dynamic_Courses/default.asp.

The Fifteenth Annual Short Course in Global Trade Analysis will be held on the campus of Purdue University in West Lafayette, IN, USA from August 4-10, 2007. Part I, the web-based, instructor-led preparatory course will precede the on-site course and run from May 21 – July 20, 2007. Applications for this course will be accepted from October 2, 2006 through March 1, 2007. Further information on this course is available at:

http://www.gtap.org/events/Short_Courses/2007/default.asp

The Fourteenth Annual Short Course in Global Trade Analysis was held on the campus of Purdue University in West Lafayette, IN, USA from July 29 to August 4, 2006. The course consisted of two parts:

Part I was a web-based, instructor-led preparatory course which was delivered via the World Wide Web from May 15 to July 14, 2006.

Part II brought participants on-site for a week-long intensive training course which consisted of a mix of daily lectures, computer-based laboratory assignments, and informal discussions designed to introduce participants to the basic features of the GTAP Model and Data Base.

The aim of the Short Course in Global Trade Analysis is to: (1) introduce participants to a standardized framework for conducting global trade analysis in an applied general equilibrium setting, (2) provide participants with ample hands-on training with software that has been tailored to global trade analysis within a standard modeling framework, and (3) give participants the opportunity to interact with economists working on global trade and resource use issues, and become part of an international network. Information about previous and forthcoming short courses is available at:

http://www.gtap.org/events/Short_Courses/default.asp.

5. CONFERENCES

The Tenth Annual Conference on Global Economic Analysis will be held June 7-9, 2007 on the campus of Purdue University in West Lafayette, IN, USA. The conference is being organized by the Center for Global Trade Analysis, Purdue University. Further information on this conference will be made available in upcoming months on the GTAP website at.

<http://www.gtap.org/events/conferences/2007/default.asp>

The Ninth Annual Conference on Global Economic Analysis was held June 15-17, 2006 at the United Nations Conference Center in Addis Ababa, Ethiopia. The conference was organized by the United Nations Economic Commission for Africa (UNECA), in conjunction with the Center for Global Trade Analysis, Purdue University. Sponsorship was provided by the African Trade Policy Centre, in collaboration with the African Economic Research Consortium, the African Development Bank, and the United Nations Development Programme. Hakim Ben Hammouda of the UNECA and Thomas Hertel of the Center for Global Trade Analysis served as co-chairs of the conference.

The goal of the annual conference is to promote the exchange of ideas among economists conducting quantitative analysis of global economic issues. The main theme of the Ninth Annual conference was “Multilateralism, Bilateralism, and Development” with sub-themes of multilateral and bilateral trade arrangements; trade and the environment; climate change and development; and trade, poverty, and gender.

The conference included six plenary sessions, nine organized sessions, and several general sessions comprised of papers selected by a reviewing committee. In total, 227 abstracts were submitted for consideration with 143 of those being presented at the conference. For more information on the Ninth Annual Conference on Global Economic Analysis, visit the conference homepage on the GTAP website at:
<http://www.gtap.org/events/Conferences/2006/default.asp>.

6. DATA BASE DEVELOPMENTS

The data construction cycle for the GTAP 7 Data Base has already begun. The data cycle starts with the solicitation of data inputs, particularly international datasets (macroeconomic aggregates, bilateral trade, protection, energy, and taxes) for the new reference year – 2004. Several pre-releases of the data base are constructed as significant data inputs are incorporated in the data base. The pre-releases of the data base are made available to consortium member agencies and data contributors to allow for data scrutiny. Experts’ feedback on the data base enables the Center and data contributors to carry out improvements and incorporate them in next data pre-releases. A final data base is released when all the updated international datasets have been incorporated into the data base.

The GTAP 7 Data Base builds on the 96 regions included in the GTAP 6.2 Data Base, released in June 2006. Since the public release of the GTAP 6 Data Base in mid-2005, input-output tables for 10 new regions (Cambodia, Pakistan, Bolivia, Ecuador, Paraguay, Iran, Egypt, Mauritius, Nigeria, and Senegal) and updated I-O tables for 5 regions (Australia, Vietnam, USA, Mexico, and Chile) have been incorporated in two interim releases of the GTAP 6 Data Base. Interim releases carry the same 2001 base year information as the GTAP 6 Data Base but have additional region detail. They are also provided as a benefit to consortium member agencies and data contributors.

Would you like to be a GTAP data contributor? The Center currently accepts contributions of domestic data bases for review and possible inclusion in the GTAP 7 Data Base. Data

contributors will receive a free copy (on CD-ROM) of the GTAP 7 Data Base and access to all pre- and interim releases. Please send your I-O table as soon as possible so that it can be incorporated in the next pre-release. Further details and guidelines on data contribution are available on the GTAP website at: <http://www.gtap.org/databases/contribute/default.asp>

7. NEW RESOURCES ON THE GTAP WEBSITE

The list below covers recent documents submitted to the GTAP Resource Center from May 10, 2006 through September 5, 2006. A comprehensive list of recent additions can be found at: <http://www.gtap.org/resources/latest.asp>.

GTAP APPLICATIONS

Ballingall, John, 2001. "The Pacific Five Free Trade Area: Impacts on Agriculture in New Zealand," Massey University Dept of Applied and International Economics.

Matthews, Alan and Keith Walsh, 2006. "The Economic Consequences of the Doha Round for Ireland," *Economic and Social Review*, Vol. 37, No. 1, Spring, 2006, pp. 47-69.

Anderson, Kym and Ernesto Valenzuela, 2006. "The World Trade Organization's Cotton Initiative: Two Complementary Opportunities to Boost African Cotton Investment, Incomes and Exports," *The AFRICA JOURNAL*, The Corporate Council on Africa: AGOA Special Edition. "Promoting Trade and Investment in Sub-Saharan Africa: Opportunities, Obstacles and Realities", June 2006, pp.21-26.

Philippidis, George and Ana I Sanjuán, 2006. "An Analysis of Mercosur's Regional Trading Arrangements," *World Economy* (Forthcoming).

Kurzweil, Marianne, 2006. "The Economic Impacts of a Migration Quota - A Borderline Case".

Anderson, Kym, Ernesto Valenzuela, and Lee Ann Jackson, 2006. "Recent and prospective adoption of genetically modified cotton: a global computable general equilibrium analysis of economic impacts," *WORLD BANK*, Policy Research Working Paper 3917, May.

Lips, Markus, 2006. "Abolition of Raw Milk Quota in the EU – A Simulation," *EuroChoices*.

Xie, Jie, 2006. "Zero Tariff for Agricultural Products - Current Situation and Prospect of China-ASEAN Free Trade Area under construction and AEAIFTA while conceiving".

Matthews, Alan and Keith Walsh, 2006. "The Doha Development Agenda: Mixed Prospects for Developing Countries," *Institute for International Integration Studies Discussion Paper* No. 157.

Flasbarth, Axel and Markus Lips, 2006. "Effects of a Humanitarian WTO Social Clause on Welfare and North-South Trade Flows," *The Swiss Review of International Economic Relations*, 61 (2) pp 159-188.

Sasidharan, Subash, 2006. "Foreign Direct Investment and Technology Spillovers: Evidence from the Indian Manufacturing Sector," UNU-MERIT Working Paper Series.

Bruess, Fritz, 2005. "Economic Integration, EU-US Trade Conflicts and WTO Dispute Settlement," *European Integration online Papers (EIoP)*; <http://eiop.or.at/eiop/eiop.htm>.

Ferrantino, Michael, 2006. "Quantifying the Trade and Economic Effects of Non-Tariff Measures," *OECD - Trade Policy Working Paper No. 28*.

Wang, Fei and Mitsuo Ezaki, 2006. "Regional Economic Integration and Its Impacts on Growth, Poverty and Income Distribution: The Case of China," *GSID*.

Mori Coelho, Alexandro, Maria Lucia M Padua Lima, Samir Cury, and Sergio Goldbaum, 2005. "Impacts of the proposals for tariff reductions in nonagricultural goods (NAMA)".

Bhanu Murthy, K.V., 2006. "Environmental Sustainability - A Consumption Approach Raghbendra Jha and K.V. Bhanu Murthy Australian National University & University of Delhi," Routledge, London.

Grob, Gustav, 2006. "Tools for Implementation ISO/IEC," *ISEO*.

Dagoumas, Athanasios, 2006. "An economic assessment of the Kyoto Protocol," *Energy Policy* 34 (2006) 26-39.

Daudin, Guillaume, Paola Montperrus-Veroni, Christine Riffart, Danielle Schweisguth, 2006. "Le commerce extérieur en valeur ajoutée (Trade in value-added)," *Revue de l'OFCE*.

8. CONTACT INFORMATION

Kavitha Muthuraman

Program Manager

Center for Global Trade Analysis

Department of Agricultural Economics

Purdue University

kavitha@purdue.edu

Ph: +1 (765) 494-4267

Fx: +1 (765) 496-1224

URL: <http://www.gtap.org>