



CENTER FOR GLOBAL TRADE ANALYSIS NEWSLETTER

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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

Staff Travel/Presentation

Hertel, T.W. “Working at the Extensive Margin of CGE Analysis”, Paper presented to the EAAE Conference on Modeling Agriculture and Rural Development Policies, Sevilla, Spain, January 29, 2008.

Hertel, T.W. “The Biofuels Boom: Implications for World Food Markets”, based on a joint paper with D. Birur and W.E. Tyner, presented at the IATRC meetings, Washington, D.C., January 9, 2008.

GTAP Seminar Series

In November 2007, Dileep Birur and Wally Tyner presented jointly in the GTAP Seminar Series. Their seminar was titled: “Impact of Biofuels Boom on World Agricultural Markets: A CGE Analysis” and provided excellent insight to their work.

Staff Publications

Narayanan, G.Badri (2008). “Indian Textile and Apparel Sector: Performance, Employment and Demand”. chapter in India Development Report: 2008, edited by R. Radhakrishna, Oxford University Press, New Delhi.

2. CONSORTIUM NEWS

The GTAP Advisory Board is composed of representatives from consortium member agencies that provide financial support and guidance to the project.

2008 GTAP Advisory Board Meeting

The next GTAP Advisory Board meeting will be held from June 9-10, 2008 in Helsinki, Finland.

More information about the GTAP Advisory Board meeting is available at:

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

3. RESEARCH HIGHLIGHTS

Measuring the Impact of the Movement of Labor Using a Model of Bilateral Migration Flows

by Walmsley, Terrie, Alan Winters and Syud Amer Ahmed

GTAP Technical Paper No. 28

The economics literature increasingly recognizes the importance of migration and its ties with many other aspects of development and policy. Examples include the role of international remittances (Harrison et al, 2003) or those immigrant-links underpinning the migration-trade nexus (Gould, 1994). More recently Walmsley and Winters (2005) utilised a Global Migration model (GMig) to demonstrate that lifting restrictions on the movement of natural persons would significantly increase global welfare with the majority of benefits accruing to developing countries. Although an important result, the lack of bilateral labor migration data forced Walmsley and Winters (2005) to make approximations in important areas and naturally precluded their tracking bilateral migration agreements.

In a new technical paper, Walmsley, Winters, and Ahmed incorporate bilateral labor flows into the GMig model developed by Walmsley and Winters (2005) to examine the impact of liberalizing the

temporary movement of natural persons. Quotas on both skilled and unskilled temporary labor in the developed economies are increased by 3% of their labor forces. This additional labor is supplied by the developing economies. The results confirm that restrictions on the movement of natural persons impose significant costs on nearly all countries, and that those on unskilled labor are more burdensome than those on skilled labor.

Developed economies increasing their skilled and unskilled labor forces by 3% raise the real incomes of their permanent residents. Most of those gains arise from the lifting of quotas on unskilled labor. On average the permanent residents of developing countries also gain in terms of real incomes from sending unskilled and skilled labor, albeit the gains are lower for skilled labor. While results differ across developing economies, most gain as a result of the higher remittances sent home.

4. SHORT COURSES

Sixteenth Annual Short Course

The Center for Global Trade Analysis will hold the Sixteenth Annual Short Course in Global Trade Analysis on the campus of Purdue University from August 2-8, 2008.

The course will consist of two main parts:

Part I is a series of weekly, online modules aimed at increasing the familiarity of the course participants with the theory behind GTAP, the standard GTAP notation, and the course software.

Part II is an intensive, week-long course consisting of a mix of daily lectures, lab assignments, and informal discussions designed to introduce participants to the basic features of the model and GTAP Data Base.

Course Scholarship Opportunity

[Nathan Associates, Inc.](#) is offering one course scholarship for the Sixteenth Annual Short Course in Global Trade Analysis. This scholarship will cover the registration fee of the course only. The recipient will be responsible for providing their own funding to cover all travel and accommodations. This recipient will also be required to send the Center for Global Trade Analysis confirmation that their airfare has been purchased by April 30. Failure to do so may result in the loss of the scholarship.

To be eligible for this scholarship, you must currently be living in one of the following countries: Taiwan, Cambodia, Indonesia, Malaysia, Philippines, Singapore, Thailand, Vietnam, Bangladesh, India, Pakistan, Sri Lanka, Mexico, Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay, Venezuela, Nicaragua, Albania, Croatia, Ukraine, Kazakhstan, Kyrgyzstan, Armenia, Azerbaijan, Georgia, Iran, Egypt, Morocco, Tunisia, Nigeria, Senegal, Madagascar, Malawi, Mauritius, Mozambique, Tanzania, Uganda, Zambia, Zimbabwe, Botswana, or South Africa and you must submit a 500-word essay detailing how you intend put into practice the skills you will learn at this course. Essays will be judged in comparison to [Nathan's corporate philosophy on economics and development](#).

The scholarship application form is accessible to those individuals currently living in one of the aforementioned countries after completing the normal course application form. Please note that if the application form is not completed in its entirety, that application will not be considered.

Course applications are currently being accepted through March 2, 2008. Participation in the course is strictly limited to 32 individuals. Previous courses have been over-booked; therefore, we strongly

encourage early application. As a result of the high number of applications we have been receiving for this course, we now wait to review all applications until after the March 2 deadline. Final acceptance decisions will be made shortly thereafter. Please visit the URL listed below to apply.

More information on the Sixteenth Annual Short Course is available at:
http://www.gtap.org/events/Short_Courses/2008/default.asp.

2008 Dynamic Short Course

The Center for Global Trade Analysis will hold the 2008 Short Course in Dynamic Global Trade Analysis on the campus of Purdue University from October 10-15, 2008.

The course will consist of two main parts:

Part I is a series of several modules to be delivered online and via CD-ROM. By working through this material in advance of the on-site course, participants will become familiar with the theory behind GTAP, the standard GTAP notation as well as the course software.

Part II is an intensive, week-long course consisting of a mix of daily lectures, lab assignments, and informal discussions designed to introduce participants to the basic features of the model and GTAP Data Base. These activities culminate in a major application undertaken by small groups and presented on the final day of the course. Each group is assigned an instructor who is intimately familiar with their project to act as a resource person. Participants leave with the capability of designing, conducting, and analyzing their own simulations.

Applications are currently being accepted through April 6, 2008. Participation in the course is strictly limited to 16 individuals. Previous courses have been over-booked; therefore, we strongly encourage early application. As a result of the high number of applications we have been receiving for this course, we now wait to review all applications until after the April 6 deadline. Final acceptance decisions will be made shortly thereafter. Please visit the URL listed below to apply.

More information on the 2008 Dynamic Short Course is available at:
https://www.gtap.org/events/Dynamic_Courses/2008/default.asp.

5. CONFERENCES

Eleventh Annual Conference

The Eleventh Annual Conference on Global Economic Analysis will be held at the Marina Congress Center in Helsinki, Finland from June 12-14, 2008. This conference is being jointly organized by the Government Institute for Economic Research (VATT), United Nations University / Wider Institute, and the Center for Global Trade Analysis.

The themes of the Eleventh Annual Conference are: globalization and economies in transition; development, poverty and vulnerability; energy and environment; and wealth, aging and income distribution.

Registrations are currently being accepted through April 30, 2008 with all payments due by May 7. A \$50 late fee will be charged to all registrations submitted between April 15 and 30. Please visit the URL listed below to register.

Further information on this conference is available at:
<http://www.gtap.org/events/Conferences/2008/default.asp>.

Post-Conference Event - Contributing I-O Tables to the GTAP Data Base

The goal of this intensive 2-day course is to assist individuals wishing to contribute I-O tables to the GTAP Data Base. The course consists of hands-on exercises (using Gempack and batch files) to convert a fairly standard I-O table into the GTAP format for I-O table contributions. Participants will be required to provide their own laptops for this course.

Location

This course will be held at the Government Institute for Economic Research (VATT) building in Helsinki, Finland from June 15-16, 2008.

Cost

The fee for this course is \$300; however, there are a number of scholarships available. Scholarships will be awarded at the discretion of the Center for Global Trade Analysis based on individual applications.

Application (http://www.gtap.org/access_member/events/iocourse/application_form.asp)

Applications are currently being accepted through March 23, 2008. Final acceptance decisions will be made shortly thereafter with accepted individuals receiving an email detailing how to register and submit payment. Participation in the course is strictly limited to 12 individuals; therefore, we encourage early application.

6. DATA BASE DEVELOPMENTS

GTAP Africa Database: Trade Data

In a previous newsletter, we mentioned that the Center is currently working on the development of a special African Data Base for analysis of African issues. One of the problems with developing a data base of Africa is the lack of bilateral trade data in United Nations' COMTRADE database for these African economies.

Nelson Villoria, a graduate student at the Center, is currently estimating these missing trade flows for the African countries (with guidance from Thomas Hertel) using the GTAP trade data (produced by Mark Gehlhar, ERS/USDA) and the BACI data (produced by CEPII); both datasets contain processed COMTRADE data. A sample of 54 African countries is taken, which in principle yields 2,862 potential bilateral transactions. In only 45% of these transactions is it possible to deduce the volume of trade (zero in a significant number of cases.) In the other 55% of potential transactions, there is no information about whether trade took place. In this research a gravity model of trade is used to generate parameter estimates of the determinants of trade for those countries that actually reported their statistics. These parameters are then used to predict the bilateral trade of the "out-of-sample" countries, that is, those for which trade is considered missing. The estimation of the gravity equation introduces sample selection bias by using only positive trade flows. Following the recent literature in firm heterogeneity and gravity modeling, Nelson has used a sample selection model that explicitly corrects parameter estimates by sample selection. The sample selection model has the added advantage that in the first stage it provides information about the factors that determine the possibility of trade taking place, regardless of its volume. These first stage parameters have been used to estimate the probability that a flow that is missing actually occurred, therefore providing a measure of confidence in our predicted missing trade volumes. The results of this research will assist us in compiling trade data for the special African GTAP Data Base.

Further information on this database is available at: <http://www.gtap.org/models/Africa/default.asp>.

Missing intra-African trade and the assessment of trade policy effects in African countries

by Villoria, Nelson

Abstract submitted for the Eleventh Annual Conference on Global Economic Analysis

The objective of this paper is twofold. First, the paper explores the magnitude of the so-called missing trade between African countries by estimating missing trade flows. Second, we explore whether the omission of missing trade biases the results of trade policy analysis in a significant way. Missing trade is defined as the potential trade that might have occurred between two countries, but that is unknown because none of the two countries reported its trade figures to the United Nations' Statistics Division who maintains COMTRADE, the main source of global trade statistics. The trade data from COMTRADE does not consider discrepancies between countries, so we employ datasets that have been previously processed (GTAP and BACI) to take into account discrepancies in the trade figures reported. We take a sample of 54 African countries that in principle yields 2,862 potential bilateral transactions. In only 45% of these transactions it is possible to deduce the volume of trade (zero in a significant number of cases.) In the other 55% potential transactions, there is not any information about whether trade took place. Methodologically, we employ the gravity model of trade to generate parameter estimates of the determinants of trade for those countries that actually reported their statistics. These parameters are then used to predict the bilateral trade of the "out-of-sample" countries, that is, those for which trade is considered missing. The estimation of the gravity equation introduces sample selection bias by using only positive trade flows. We follow the recent literature in firm heterogeneity and gravity modeling, and use a sample selection model that explicitly corrects parameter estimates by sample selection. The sample selection model has the added advantage that in a first stage, gives information of the factors that determine the possibility of trade taking place, regardless of its volume. For example, if two countries speak the same language, it is possible that the possibility of those two countries trading is larger than for countries with different languages. However, once that trade takes place, the language does not necessarily determine whether trade volumes are low or high. These first stage parameters are then used to estimate the probability that a flow that is missing actually occurred, therefore providing a measure of confidence on our predicted missing trade volumes. The estimation is done with the data aggregated to the GTAP commodity classification. Preliminary estimates indicate that "missing trade" is equivalent to 15% to 25% of observed trade. With the predicted missing values, we are planning simulate the effects of trade liberalization under Doha Round scenarios and compare the main results with simulations that use only observed trade.

7. NEW RESOURCES ON THE GTAP WEBSITE

The list below details new resources submitted to the GTAP Resource Center between October 2, 2007 and January 3, 2008. A comprehensive list of all recent additions can be found at: <http://www.gtap.org/resources/latest.asp>.

AnalyseGE: Software Assisting Modellers in the Analysis of their Results

by Pearson, Ken, Thomas Hertel and Mark Horridge

Are Eco-marketing Campaigns Effective? Evidence from the Maine Light-duty Vehicle Market.

by Bacani, Eleanor

Can Debt relief led to Development in Africa?

by Fikru, Mahelet and Bizuayehu Getachew

Could extended preferences reward Sub-Saharan Africa's participation in the Doha round negotiations?

by Perez, Romain, Hakim Ben Hammouda and Stephen Karingi

Energy cost estimates, 2001, from the 2003 and 2006 editions of the IEA's extended energy balances

by McDougall, Robert

Initial Preparation of Energy Volume Data for GTAP 7

by McDougall, Robert and Angel Aguiar

Introducing Liquid Biofuels into the GTAP Database

by Taheripour, Farzad, Dileep Birur, Thomas Hertel and Wally Tyner

Measuring the Impact of the Movement of Labor Using a Model of Bilateral Migration Flows

by Walmsley, Terrie, Alan Winters and Syud Amer Ahmed

On Rice in the GTAP Data Base

by McDougall, Robert

Predicting European Enlargement Impacts: A Framework of Inter-regional General Equilibrium*

by Kancs, D'Artis

Scenar 2020: scenario study on the future of agriculture and the rural world

by Nowicki, Peter, Hans van Meijl, Andrea Knierim, Martin Banse and John Helming

The economic effects of Croatia's accession to the EU

by Lejour, Arjan, Andrea Mervar and Gerard Verweij

Trade Growth in a Heterogeneous Firm Model: Evidence from South Eastern Europe*

by Kancs, D'Artis

8. CONTACT INFORMATION

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