



The Global Trade Analysis Project: Report, Issues, and Future Directions

GTAP Advisory Board Meeting

June 17-18, 2019

Warsaw, Poland

Center for Global Trade Analysis
Purdue University

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June 6, 2019

Dear GTAP Advisory Board Members,

Another busy year for the Center as trade policies continue to take center stage in the international economy. The headlines have largely focused on the China/US trade nexus, and to a lesser extent on the new United States-Mexico-Canada Agreement, but there has been activity in many other areas including the African Continental Free Trade Area (AfCTA); implementation of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), the former TPP; and the continuing negotiations over the Regional Comprehensive Economic Partnership (RCEP). It was also a frustrating year for the Center as well as the broader GTAP community as the birthing of the GTAP 10 Data Base was delayed due to a number of factors. We were pleased to post pre-release 3 of GTAP 10 for board members earlier this month and are planning a public launch in July. Beyond the move from 57 to 65 sectors, which was the main source of the delay, there has been much additional work on the database inputs including a bevy of new input-output tables, updates to domestic agricultural policies, new export subsidy estimates, updates to services trade data and more as we begin preparations for GTAP 11! Finally, besides our usual set of satellite databases, we will soon be able to provide the GTAP 10 MRIO database.

The Center has also been busy on the model development front. Much of the work has concentrated on two model extensions: GTAP-RD, a recursive dynamic version of GTAP, which has benefitted from the Baseline project, and GTAP-PE, a hybrid GTAP model that embeds a partial equilibrium trade module at the HS-6 level for selected GTAP sectors. GTAP-RD was rolled out at a very well attended Dynamic Short Course held at Purdue in April. The GTAP-PE model will be available soon, after some additional tweaking and testing.

The GTAP courses have been rolling along as well. GTAP 101 is on a solid track and is being offered twice a year under the leadership of Amanda Countryman. We also plan to continue an annual offering of GTAP PTA spearheaded by Terrie Walmsley, with Anna Strutt, and we will see a new offering, GTAP-HET, the Melitz version of the GTAP Model, which will be led by Zeynep Akgul. We are considering additional offerings—perhaps GTAP-PE and/or GTAP-E. The standard short course will again be offered this summer at Purdue.

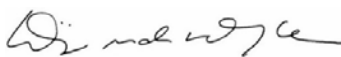
The *Journal of Global Economic Analysis* continues to garner hundreds of downloads and is ranked in the top 3% of economics journals according to RePEc's Simple Impact Factor. JGEA has completed its third full year and is attracting unsolicited submissions. It is one of the few open source, economics journals and perhaps the only one requiring a complete set of files to permit replication of results, coupled with execution of the replication by a reviewer prior to publication.

In terms of our staff, we are pleased to introduce Holly McIntire as the Center's new operations manager. She takes over from Sue Bennett, to whom we are grateful for her service. Holly has quickly mastered the multifarious responsibilities of her position. Many of you have already had the opportunity to interact with her and you will also meet her in Warsaw. The Center is also being highlighted in the Purdue community this year as the University celebrate its 150th anniversary.

We have been gratified by the arrival of three new GTAP Consortium Members: HM Treasury from the United Kingdom, represented by Andrew Stuckey, the Council of Economic Advisers of the United States, represented by Andre Barbe, and the International Monetary Fund, represented by Ben Hunt. We look forward to seeing the new members in Warsaw.

With public release of GTAP 10 imminent, we will be moving ahead on a number of new initiatives, some of which we will lay out during the board meeting. As usual, we seek the board's advice for strategic guidance and we are deeply appreciative of board members' support—both in terms of intellectual substance and financial resources. We look forward to creative discussions in Warsaw!

Sincerely,



Dominique van der Mensbrugghe, Ph.D.
Research Professor and Director of GTAP
Center for Global Trade Analysis
Department of Agricultural Economics
Purdue University

Executive Summary

The list below highlights a number of important accomplishments in the Center during the past year. Detailed discussion follows in the subsequent report.

Data Base and Models Updates/Releases

- Subsequent to the imminent release of GTAP 10, we will focus our attention to the satellite databases and documentation
- Brand new satellite: MRIO and domestic margins extension
- We will also begin to prepare for version 11, besides updating data, we will be looking to exploit new data sources (e.g., services trade data and agricultural production)
- Improve our data processes, in particular that affecting the IOTs transition to new sectoral classification

Network

- Two offerings of GTAP 101
- One offering of GTAP PTA
- 26th Annual Short Course held in West Lafayette
- 2019 Dynamic Short Course held in West Lafayette
- 2018 Board Meeting and Conference held in Cartagena, Colombia
- 2021 Conference proposal (Colorado State University, USA) submitted for consideration

Research Projects

- *Journal of Global Economic Analysis* launched, with two releases
- Strong external funding for selective research activities in the Center aimed at advancing the frontiers of GTAP-related data, modeling and policy analysis
- Specifics on projects detailed throughout this report

Staffing

- Sue Bennett, part-time Operations Coordinator, departed Center in February 2019
- Holly McIntire hired as full-time Operations Manager in March 2019

Meeting Attendees

Center for Global Trade Analysis

- **Angel Aguiar**, Research Economist - aaguiar@purdue.edu
- **Ginger Batta**, Senior Program Manager - gbatta@purdue.edu
- **Mary Burfisher**, Senior Education Advisor - burfisher@gmail.com
- **Maksym Chepeliev**, Research Economist - mchepeli@purdue.edu
- **Erwin Corong**, Research Economist - ecorong@purdue.edu
- **Thomas Hertel**, Distinguished Professor and Executive Director - hertel@purdue.edu
- **Robert McDougall**, Senior Research Economist - rmcdougall@purdue.edu
- **Holly McIntire**, Operations Manager - hcmcinti@purdue.edu
- **Dominique van der Mensbrugghe**, Director and Research Professor - vandermd@purdue.edu

GTAP Consortium Members

- **Asian Development Bank** (Philippines)
Not represented
- **Centre d'Etudes Prospectives et d'Information Internationales** (France)
Jean Fouré - jean.foure@cepii.fr
- **Council of Economic Advisers** (United States)
Not represented
- **Development Research Center of the State Council** (China)
Shantong Li - lishantong333@126.com
- **Economic and Social Research Institute, Cabinet Office** (Japan)
Not represented
- **Economic Research Institute for ASEAN and East Asia** (Indonesia)
Lurong Chen - lurong.chen@eria.org
- **Economic Research Service of the United States Department of Agriculture** (United States)
Not represented
- **European Commission - DG Trade** (Belgium)
Lucian Cernat - lucian.cernat@ec.europa.eu
- **European Commission - Joint Research Centre** (Spain)
Bert Saveyn - bert.saveyn@ec.europa.eu
- **Food and Agriculture Organization of the United Nations** (Italy)
Not represented
- **Global Affairs Canada** (Canada)
Shenjie Chen - shenjie.chen@international.gc.ca
- **HM Treasury** (United Kingdom)
Not represented

- **Inter-American Development Bank** (United States)
Not represented
- **International Food Policy Research Institute** (United States)
David Laborde - d.laborde@cgiar.org
- **International Monetary Fund** (United States)
Ben Hunt - bhunt@imf.org
- **International Trade Centre** (Switzerland)
Mondher Mimouni - mimouni@intracen.org
- **KPMG Australia** (Australia)
George Verikios - gverikios@kpmg.com.au
- **McKinsey & Company, Inc.** (United States)
Not represented
- **MIT Joint Program on the Science and Policy of Global Change** (United States)
Sergey Paltsev - paltsev@mit.edu
- **National Graduate Institute for Policy Studies** (Japan)
Nobuhiro Hosoe - nhosoe@grips.ac.jp (*Tuesday*)
- **Organisation for Economic Co-operation and Development** (France)
Frank van Tongeren - frank.vantongeren@oecd.org
- **Research Institute of Economy, Trade and Industry** (Japan)
Not represented
- **The World Bank** (United States)
Maryla Maliszewska - mmaliszewska@worldbank.org
- **Thünen Institute of Market Analysis** (Germany)
Martin Banse - martin.banse@thuenen.de
- **United Nations Conference on Trade and Development** (Switzerland)
Ralf Peters - ralf.peters@unctad.org
- **United Nations Economic and Social Commission for Western Asia** (Lebanon)
Mohamed Abdelbasset Chemingui - cheminguim@un.org
- **United Nations Economic Commission for Africa** (Ethiopia)
Stephen Karingi - Skaringi@uneca.org
- **University of Hohenheim** (Germany)
Kirsten Boysen-Urban - kirsten.urban@uni-hohenheim.de
- **US Department of Commerce** (United States)
Natalie Soroka - natalie.soroka@trade.gov (*Monday*)
Chris Rasmussen - chris.rasmussen@trade.gov (*Tuesday*)

- **US Environmental Protection Agency** (United States)
James McFarland - mcfarland.james@epa.gov
- **US International Trade Commission** (United States)
William Powers - william.powers@usitc.gov
- **Wageningen Economic Research** (The Netherlands)
Jason Levin-Koopman - jason.levin-koopman@wur.nl
- **World Trade Organization** (Switzerland)
Bob Koopman - robert.koopman@wto.org

Members at Large

- **Brian O'Neill** - brian.oneill@du.edu
Josef Korbel School of International Studies, University of Denver
- **Joseph Francois** - joseph.francois@gmail.com
World Trade Institute
- **Mark Horridge** - mark.horridge@gmail.com
Centre of Policy Studies, Victoria University

Guests

- **Amanda Countryman** - amanda.countryman@colostate.edu
Colorado State University
- **Jan Jakub Michalek** - michalek@wne.uw.edu.pl
Faculty of Economic Science, University of Warsaw

GTAP Advisory Board Meeting Agenda

Monday, June 17

The Old Library, University of Warsaw, Room 107

Krakowskie Przedmieście 28, 00-325 Warsaw

8:30-9:00am	Welcome Coffee
9:00-10:30am	Welcome and Overview (Chair: Maryla Maliszewska) 9:00-9:30 Overview and Issues (Dominique van der Mensbrugge) 9:30-10:00 Discussion 10:00-10:20 GTAP 10 Data Base (Angel Aguiar) 10:20-10:30 Discussion
10:30-11:00am	Coffee Break
11:00am-12:15pm	The GTAP Data Base: Updates on Core Components (Chair: Frank van Tongeren) 11:00-11:20 Transition Tables (Erwin Corong, Robert McDougall) 11:20-11:30 Discussion 11:30-11:50 IO Tables (Angel Aguiar, Stephen Karingi) 11:50-12:00 Discussion 12:00-12:10 Future Releases (Angel Aguiar) 12:10-12:15 Discussion
12:15-1:30pm	Lunch (Room 308)
1:30-2:30pm	Education, Outreach, and Strategic Communication (Chair: Stephen Karingi) 1:30-1:45 Education and Mentoring (Mary Burfisher) 1:45-1:55 Discussion 1:55-2:00 <i>Journal of Global Economic Analysis</i> (Thomas Hertel) 2:00-2:05 Discussion 2:05-2:10 GeoHub Platform (Dominique van der Mensbrugge) 2:10-2:20 Discussion 2:20-2:25 CGTA PhD Students (Thomas Hertel) 2:25-2:30 Discussion
2:30-3:00pm	Coffee Break
3:00-4:00pm	New Developments at the Interface of Data and Modeling (Chair: Natalie Soroka) 3:00-3:30 GTAP-PE (CGTA Data Team) 3:30-3:40 Discussion 3:40-3:50 ITC-MacMap TRQs (Mondher Mimouni) 3:50-4:00 Discussion
4:00-5:30pm	Parking Lot: Other Data and Modeling Issues (Chair: Jean Fouré)
7:30pm	Dinner - Smaki Warszawy , 47/49, Żurawia, 00-680 Warszawa, Poland <i>Walking directions from Novotel Warszawa Centrum</i> <ol style="list-style-type: none">1. Head southeast toward Marszałkowska (33m)2. Slight left onto Marszałkowska (130m)3. Turn right onto Żurawia, destination on left (150m), restaurant located off of Żurawia and Poznańska

GTAP Advisory Board Meeting Agenda

Tuesday, June 18

The Old Library, University of Warsaw, Room 107

Krakowskie Przedmieście 28, 00-325 Warsaw

8:30-9:00am	Welcome Coffee
9:00-10:00am	The Network (Chair: David Laborde)
	9:00-9:05 GTAP Research Fellows (Stephen Karingi)
	9:05-9:15 Committee Recommendation, Voting and Future Committee Selection
	9:15-9:20 2019 Conference (Jan Jakub Michałek)
	9:20-9:30 Discussion
	9:30-9:35 2020 Conference (Nobuhiro Hosoe)
	9:35-9:45 Discussion
	9:45-9:50 2021 Conference (Amanda Countryman)
	9:50-10:00 Discussion and Vote
10:00-10:30am	Coffee Break
10:30-11:30am	New Developments at the Interface of Data and Modeling (Chair: Lucian Cernat)
	10:30-10:45 Update on Services Data (Bob Koopman)
	10:45-11:00 Discussion
	11:00-11:15 Updates on Labor (Thomas Hertel, Maryla Maliszewska)
	11:15-11:30 Discussion
11:30am-12:45pm	Priorities for Forthcoming Year (Chair: Kirsten Boysen-Urban)
	11:30-11:40 Center Finances (Dominique van der Mensbrugge)
	11:40-11:50 Discussion
	11:50-12:15 Revisit Priorities for Next Year (Dominique van der Mensbrugge)
	12:15-12:45 Discussion
12:45-2:00pm	Lunch (Room 308)
2:00-3:30pm	Additional Meetings (Chair: Bill Powers)
	2:00-2:15 Update on IPCC/Scenarios Forum (Brian O'Neill)
	2:15-2:30 Discussion
	2:30-3:00 Update on NTMs: Evaluation and Implementation (Joseph Francois)
	3:00-3:30 Discussion
4:00-6:00pm	Baseline Project Meeting
5:00-6:00pm	Pre-Conference Seminar: GTAP 10 Data Base (Main Assembly Hall)

Mission and Goals

Our Mission

To provide leadership in economic policy analysis by fostering collaboration to achieve better data and research outcomes.

We value:

- International collaboration because it increases quality of data and analysis.
- Objectivity and transparency because they are crucial to our data work and analysis.
- Discovery because improving methodology leads to better policy analysis.
- Learning because it creates critical vibrancy both within the Center and in the expanding network and improves the quality of analysis undertaken.
- Engagement because it helps us serve policy analysts and decision makers with better data and analysis.

We believe that:

- Better data leads to better policy analysis, which leads to better policy.
- Reconciling data makes data better.
- CGE modeling provides useful policy insights.
- Avoiding duplication in data production is efficient.
- Collaboration enhances individual efforts.
- Having more trained users enriches policy debates.

Goals:

1. **Data Goal:** To Improve the quality of data products through:
 - a. Improving the quality of contributed I-O data
 - b. Addition and improvement of other datasets
 - c. Monitoring of data quality using comparison programs
 - d. Version control and documentation
2. **Research Goal:** To actively participate in quantitative economic analysis of pressing global concern in the areas of Trade and Development and Global Environmental Issues
3. **Model Goal:** To promote further development of GTAP-based models
4. **Education Goal:** To expand and improve education for global economic analysis worldwide
5. **Staffing Goal:** To actively seek and encourage talented staff and graduate students
6. **Collaboration Goal:** To actively seek opportunities for fostering collaboration with institutions around the world
7. **Communication Goal:** To facilitate communication amongst members of the network as well as between the Center and key stakeholders

Center for Global Trade Analysis

Center Faculty and Staff

- **Angel Aguiar**, *Research Economist and Data Base Construction Specialist*
Angel works with the macro datasets and contributors of the regional I-O data for the GTAP Data Base. He has been managing the construction of the GTAP 10 Data Base. Angel also teaches in the annual GTAP Short Course and leads the bi-annual GTAP Dynamic Short Course. He undertakes economic research using the GTAP framework.
- **Zeynep Akgul**, *Post-doctoral Research Associate and Visiting Scholar*
Zeynep is a Post-Doctoral Research Associate at the Center for Global Trade Analysis and a Visiting Scholar at the U.S. International Trade Commission. Her primary research interests include Computable General Equilibrium (CGE) modeling for international trade policy analysis with an emphasis on firm heterogeneity implementations with the GTAP Model. She has developed the firm heterogeneity module GTAP-HET, which incorporates consumer love-of-variety, endogenous productivity changes, as well as endogenous firm entry/exit into domestic and export markets. She is currently working on the empirical aspects of firm heterogeneity models where she focuses on estimation/calibration of key parameters, such as the shape parameter of productivity distribution and the elasticity of substitution amongst varieties.
- **Uris Baldos**, *Research Assistant Professor*
Uris is part of the Center's management oversight committee, contributes to the Annual GTAP Short Course and GTAP Dynamic Short Course, advises graduate students, maintains the GTAP-AEZ database framework, and leads model and database improvements for the SIMPLE model of global agriculture. His research interests are on the broad issues surrounding the global farm-food-environment nexus, local-global telecoupling and on global gridded modelling.
- **Ginger Batta**, *Senior Program Manager*
Ginger manages GTAP's educational and collaborative network offerings from proposal development through closing. She also handles the sales of GTAP products, general communication with the GTAP Network, and the Center for Global Trade Analysis' social media accounts.
- **Maksym Chepeliev**, *Research Economist*
Maksym is involved into the development of GTAP 10 Data Base and satellite accounts. He also works on the incorporation of food balance sheets to the GTAP Data Base and development of the disaggregated agricultural database for the GTAP PE-GE model. Maksym has been working on the development of the cross-entropy approach to the updating and construction of the GTAP Data Base. He is also working on agricultural production targeting (APT) estimation for GTAP 10 Data Base, as well as development of the new APT procedure for GTAP. Maksym is managing GTAP users support activities and teaches GTAP Short Courses. He undertakes research on environmental and resource economics both on regional and global levels
- **Erwin Corong**, *Research Economist*
Erwin maintains the standard GTAP model (version 7) code and works on porting other GTAP suite of models to the new standard GTAP model. He also runs the construction programs for the GTAP version 10 Data Base, updates the GMig2 and the MRIO satellite Data Bases, and works on integrating domestic margins in both the GTAP Data Base and modeling framework. Erwin teaches in the GTAP Short Courses and undertakes research using the GTAP framework. During the past year, he has contributed to the development of GTAP's new recursive dynamic model (GTAP-RD), the GTAP partial equilibrium (GTAP-PE) hybrid extension and the WTO's Global Trade Model.
- **Jeremy Douglas**, *Web and Information Technology Specialist*
Jeremy is responsible for the design, development, and maintenance of the GTAP website.

- **Alla Golub, *Research Economist***
Alla is a Research Economist at the Center working on analysis of energy and climate change mitigation policies. Alla writes competitive grant proposals and serves as principal and co-principal investigator on several projects. This year she has been working on dynamic forward looking model of global land use with detailed representation of timber sector, and PE-GE analysis of U.S. recent agricultural trade policies. Alla also teaches in the annual GTAP Short Courses and GTAP Dynamic Short Courses.
- **Thomas Hertel, *Executive Director and Distinguished Professor***
Tom focuses on strategic issues and new research directions for the Center, as well as Consortium member development. He also teaches a GTAP-based PhD course, supervises graduate students and is heavily involved in a number of trade and environment-related projects at the Center. He is currently spearheading a Purdue University, Discovery Park 'Big Idea' initiative – GLASS (Global to Local Analysis of Systems Sustainability) aimed at facilitating global, gridded analysis of sustainability issues related to land and water systems. This has significant overlap with GTAP-based work related to land, water and energy dimensions of sustainability.
- **Jing Liu, *Research Economist and Science Coordinator***
Jing contributes to developing the SIMPLE-G model that has been used to study long run agricultural sustainability in the US and global settings. This year she will supervise a graduate student to develop a special version of the model SIMPLE-G-China for the INFIEWS China-US project, and create a short course about gridded-resolving modeling. Jing also coordinates interdisciplinary research under the GLASS initiative.
- **Robert McDougall, *Senior Research Economist***
Robert works on special projects, which significantly improve the GTAP Data Base and Models. This year he has been working on trade in services, and the remapping of I-O tables from a sectoral classification based on Revision 3 of the International Standard Industry Classification, to one based on Revision 4.
- **Holly McIntire, *Operations Manager***
Holly assists the Center with university research account processes from proposal to reconciliation and closing; facilitates the tracking and reporting of Center finances and Consortium billing; and handles other general administrative tasks.
- **Dominique van der Mensbrugghe, *Director and Research Professor***
Dominique oversees the day-to-day activities of the Center, as well as focusing on new initiatives in development of the GTAP Data Base and models and policy applications. He also supervises graduate students, in the context of his ongoing research on trade, development and the environment.
- **Cicero Zanetti De Lima, *Post-Doctoral Research Associate***
Cicero is a post-doctoral scholar at the GTAP center. He is contributing to create a complete workflow for grid data and GTAP integration since the preparation of the data, analysis, and dissemination of the results. He is also working on a project to connect GTAP and inVEST models to assess the macroeconomic consequences of enhanced Biodiversity and Ecosystem Services.

Teaching and Research Associates

- **Mary Burfisher, *Senior Education Advisor, Center for Global Trade Analysis, Purdue University***
Mary is the former lead course instructor for the GTAP 101 and PTA courses and continues to advise the Center on educational and mentoring programs.

- **Amanda Countryman**, *Associate Professor, Colorado State University*
Amanda is a former GTAP graduate student and is currently an Associate Professor at Colorado State University where her research employs computable general equilibrium modeling techniques to investigate the economic implications of international trade policy, focusing specifically on the impacts of trade reform on agriculture. Amanda is the lead instructor for the GTAP 101 Courses and also serves as an instructor for the standard short course.
- **Russell Hillberry**, *Associate Professor, Purdue University*
Russell is an Associate Professor with the Department of Agricultural Economics and a Research Associate of the Center. He works in the fields of international trade and economic geography. His current research focuses on the impact of trade facilitation measures and the spatial organization of international production chains.
- **Roman Keeney**, *Associate Professor, Purdue University*
Roman is an Associate Professor with the Department of Agricultural Economics and Research Associate of the Center. He works on agricultural policy and is the lead instructor for the annual GTAP Short Course.
- **Anna Strutt**, *Associate Professor, Economics, University of Waikato*
Anna is an Associate Professor of Economics at the University of Waikato in New Zealand with research interests in CGE modelling and international trade policy reform, including effects of poverty and the natural environment. Anna co-teaches the GTAP PTA Courses with Terrie Walmsley.
- **Farzad Taheripour**, *Research Associate Professor, Purdue University*
Farzad is a Research Associate Professor with the Department of Agricultural Economics and Research Associate of the Center. He has developed data and models to introduce bio-fuels into the GTAP framework and link the GTAP Model with water and energy models. He also has accomplished a major revision of the natural gas sector in the GTAP Data Base. He works on emissions due to land use changes associated with the production of first and second generations of bio-fuels.
- **Wallace Tyner**, *James and Lois Ackerman Professor of Agricultural Economics; Senior Policy Advisor, Purdue University*
Wally advises the Center on policy. Most recently, he has been spearheading a number of large research projects and proposals in the areas of energy, climate change, and biofuels.
- **Terrie Walmsley**, *Managing Director, ImpactECON*
Terrie is currently the Managing Director at ImpactECON where she undertakes trade policy studies and develops global CGE models to incorporate supply chains, non-tariff measures, migration, dynamics and household detail into both GEMPACK- and GAMS-based models. Terrie is the lead instructor for the GTAP PTA Courses.

Graduate Students

- **Alma Cortes Selva** (Nicaragua)
Anticipated Graduation: Summer 2020
Dissertation Title: “Renewable energies: Impact at the regional level and national level and future patterns of trade”
Skills/Interests:
 - Renewable energy
 - Synthetic Control
 - General Equilibrium Modeling
 - Input-Output Analysis
 - CGE modelling

- **Iman Haqiqi** (Iran)
 - Anticipated Graduation: Summer 2019
 - Dissertation Title: *"Irrigation, Water Scarcity, and Adaptation"*
 - Skills/Interests:
 - Agricultural and Natural Resource Economics
 - Environmental and Ecological Economics
 - International Economics
 - Welfare Economics
 - General Equilibrium Modeling
 - Partial Equilibrium Modeling
 - Dynamic Programming
 - Spatial Modeling

- **Kayenat Kabir** (Bangladesh)
 - Anticipated Graduation: Summer 2019 (*aims to work in international development*)
 - Dissertation Title: *"Forces Governing Household Food Security and Agricultural Labor Markets in Niger"*
 - Skills/Interests
 - Food security
 - Demographics
 - Labor productivity
 - Migration
 - Climate change
 - Partial and General Equilibrium Analysis
 - Household Survey Analysis
 - Food Security and Nutrition Assessment Design

- **Verena McClain** (Germany)
 - Anticipated Graduation: Summer 2020
 - Dissertation Title: *"Agroecosystem resilience in the face of climate change"*
 - Skills/Interests:
 - Climate Change
 - International trade
 - Partial and General Equilibrium Modeling
 - Spatial Analysis
 - Econometrics

- **Wajiha Saeed** (Pakistan)
 - Anticipated Graduation: Summer 2021
 - Dissertation Title: *tbd*
 - Skills/Interests:
 - Global and country-level CGE modelling
 - Assessing distributional and growth impacts of taxation
 - Exchange rate re-alignment
 - Poverty microsimulation
 - Tariffs and trade
 - Implications of climate change on global nutrition, labor markets, poverty

- **Anton Yang** (United States)
 - Anticipated Graduation: Summer 2020
 - Dissertation Title: *"Non-Homotheticity in the Global Economic Analysis"*
 - Skills/Interests:
 - International Trade and Economic Geography
 - Consumer Demand and Global Sustainability

- Estimations
 - Structural Estimation of Gravity Models of Trade
 - Estimations of Food and Calorie Demand
 - Empirical Demand System Estimation of the GTAP Model
- Partial and General Equilibrium Modeling
- Mandarin, German (f), Japanese (b)

Visitors to the Center

- **Thomas Rutherford**, University of Wisconsin (United States)
- **Frances Moore**, University of California Davis (United States)
- **Shunli Yao**, Institute for Applied International Trade (China)
- **Everett Peterson**, Virginia Tech (United States)

Objectives and Accomplishments

Progress towards Goals over the Past Year

Below is an assessment of our progress towards the core objectives outlined last year in the Board Meeting summary:

1. Data Goal: To Improve the quality of data products

Tasks	Responsibility
Improving the quality of contributed I-O data (core)	Aguiar
<i>Primary Priorities</i>	
<ul style="list-style-type: none"> Work with contributors to improve I-O tables (US, others) 	Aguiar
<i>Ongoing. Worked with several IO contributors wishing to contribute to GTAP.</i>	
<ul style="list-style-type: none"> Compare IOT with data base to work with contributor on where the largest adjustments occur 	Aguiar
<i>Ongoing. Started to compare the resulting IO tables after the adjustments</i>	
<ul style="list-style-type: none"> Preliminary contours of V11 	Aguiar
<i>Ongoing. Working with contributors regarding the availability of 2017 data.</i>	
Addition/Improvement of Datasets used in GTAP Data Base (core)	Aguiar
<i>Primary Priorities</i>	
<ul style="list-style-type: none"> Improved Agricultural Production data (FAO) 	Chepeliev
<i>Agricultural production targets were updated for GTAP 10. Special version of the GTAP 10 database is under development</i>	
<ul style="list-style-type: none"> Energy Subsidies: special version for GTAP 9 and 10 	Chepeliev
<i>GTAP energy subsidies database documentation was published in JGEA. GTAP 10 database with incorporated energy subsidies is under development.</i>	
<ul style="list-style-type: none"> New sectoral aggregation 	Corong/Aguiar/McDougall
<i>Ongoing. The transition to the new sectoral composition has been slow.</i>	
<ul style="list-style-type: none"> New services, plus changes to BoP classification 	McDougall
<i>Completed</i>	
<ul style="list-style-type: none"> Development of the GTAP non-CO₂GHG emissions Data Base 	Chepeliev
<i>GTAP 10 non-CO₂ GHG and air pollution databases will be released.</i>	
Addition/Improvement of Satellite Data (core)	Aguiar
<i>Primary Priorities</i>	
<ul style="list-style-type: none"> Domestic Margins: special version for GTAP 10 	Corong
<i>Both the GTAP Data Base and model with domestic margins will be available soon after the public release of GTAP Data Base version 10.</i>	
<ul style="list-style-type: none"> Multi-region Input Output Database (GTAP-MRIO) 	van der Mensbrugge
<i>Based on the initial contribution of Caitlyn Carrico, the code for generating the MRIO version of the GTAP Data Base has been made more flexible, making it easier to generate the MRIO</i>	

<i>accounts. This new procedure has been used with pre-release 2 of V10 and will be used to create the MRIO database for the final release of V10.</i>	
• GDyn database	Golub
<i>GDyn database based on version 10 will be produced following v10 release.</i>	
• GMIG database	Corong
<i>Work on updating the GMIG Data Base will commence closer to the public release of GTAP Data Base version 10.</i>	
• Land use database	Baldos
<i>No update</i>	
• Export taxes	Beckman, Aguiar
<i>Completed. Data for 2011 and 2014 is ready to be introduced in GTAP 10.</i>	
• Food balance sheets	Chepeliev
<i>A preliminary version of the GTAP-consistent food balance sheets were developed; corresponding paper would be presented at GTAP 2019 conference.</i>	
• Agricultural database for the GTAP PE-GE model	Chepeliev
<i>Agricultural database for the GTAP PE-GE model was developed; corresponding paper would be presented at GTAP 2019 conference.</i>	
• Development of the cross-entropy approach to the updating and construction of the GTAP Data Base	Chepeliev
<i>A conceptual framework and sample implementation of the cross-entropy approach to the GTAP database construction/update was developed; framework will be presented at the 2019 Board meeting.</i>	

2. Research Goal: To actively participate in quantitative economic analysis of pressing global issues

Tasks	Responsibility
Trade and Development	
<i>Primary Priorities</i>	
• Continue to publish papers on trade, poverty, migration/labor and global supply chains	Staff and Graduate Students
• USITC project to further develop policy application (Firm Heterogeneity)	Akgul
<i>The USITC project started on May 31, 2016 and focuses on further development of GTAP-HET model and parameterization. In addition to the two papers published on the USITC Working Paper Series in 2017, one more paper related to the project is published in 2018. The paper is titled as “Taking Melitz Seriously: A Simple Approach for Identifying Structural Parameters of Trade Models with Firm Heterogeneity” and it focuses on estimating the shape parameter of Pareto distribution and elasticity of substitution across varieties by using firm-level data. Currently, we are working on two more papers. One of them is a documentation of the updates on the GTAP-HET model. The second one is the implementation of the parameter estimation with a policy analysis. As a part of the project, we also provided training sessions in ITC to build capacity on practical uses of GEMPACK to conduct policy analysis with GTAP simulations. The USITC project will continue until August 30, 2019.</i>	

Global Energy and Environmental Issues	
<i>Primary Priorities</i>	
<ul style="list-style-type: none"> Continue to publish papers on energy and environmental issues with a special focus on the land-water-energy-climate nexus 	Staff and Graduate Students

3. Model Goal: To promote further development of GTAP-based models

Tasks	Responsibility
Model Updates/Conversions	
<i>Primary Priorities</i>	
<ul style="list-style-type: none"> GTAP-PE 	van der Mensbrugge, Corong, Aguiar
<i>Updated model is finished working on documentation.</i>	
<ul style="list-style-type: none"> GTAP-PE-TRQ 	Corong, Chepeliev, Golub
<i>Model under development The GTAP-PE framework provides an ad-valorem equivalent (AVE) estimates for tariffs, specific tariffs, compound tariffs, and tariff-rate-quotas (TRQs). This allows analysis of changes in tariff rates, but is not suitable for analysis of changes in TRQ regimes. Under the GTAP-PE-TRQ task, TRQs are incorporated in the GTAP-PE framework to further improve suitability of the model for detailed trade policy analysis. This is especially relevant in the context of United States-Mexico-Canada Agreement that expands U.S. TRQ import quotas in Canada for dairy and poultry products, and provides Canada with additional access in U.S. dairy and peanuts markets.</i>	
<ul style="list-style-type: none"> GTAP-RD 	Corong, Aguiar
<i>First version of the model is finished. Working on documentation.</i>	
<ul style="list-style-type: none"> GTAP-E 	Corong
<i>Ongoing: Preliminary version of facelifted (i.e., version 7) GTAP-E model is being tested for use in the 2019 Short Course.</i>	
<ul style="list-style-type: none"> GTAP-Power 	Corong
<i>Ongoing work as GTAP-Power builds on the facelifted GTAP-E model. GTAP-Power will be available for use in the 2019 Short Course.</i>	

4. Education Goal: To expand and improve global economic analysis education worldwide

Tasks	Responsibility
Education Plan	
Various	
<i>Primary Priorities</i>	
<ul style="list-style-type: none"> 2018 GTAP Short Course 	Keeney, Batta, Douglas
<i>The Center held the 26th Annual Short Course in Global Trade Analysis in July/August 2018 on the campus of Purdue University for 24 attendees, three of which were awarded fellowships by the Center to help reduce their costs.</i>	

<ul style="list-style-type: none"> • GTAP 101 Courses 	Countryman, Batta, Douglas
<p><i>Two successful offerings of GTAP 101 were held in 2018, producing 35 “graduates”. Demand for this course remains steady and graduates are continuing to feed into the other course offerings.</i></p>	
<ul style="list-style-type: none"> • GTAP PTA Course 	Walmsley, Batta, Douglas
<p><i>One GTAP PTA course was held in 2018, producing 17 “graduates”. The Center funded two scholarships for this course.</i></p>	
<ul style="list-style-type: none"> • 2019 Dynamic Short Course 	Aguiar, Batta, Douglas
<p><i>The dynamic short course content and model were revamped and the course was held in early April 2019.</i></p>	
<ul style="list-style-type: none"> • GTAP-HET Course 	Akgul, Batta, Douglas
<p><i>Development of the GTAP-HET Course began in late 2018. The first course will be held October 7-November 17, 2019.</i></p>	
<ul style="list-style-type: none"> • Update instructional materials for GTAP Model updates 	Keeney, Aguiar, Chepeliev, Corong, McDougall, van der Mensbrugge
<p><i>Roman Keeney coordinated the efforts to update the GTAP Short Course materials to reflect changes to the standard GTAP Model. The material updates for the onsite portion of the course were completed and taught during the 2018 course. The online portion of the course is being updated and will be offered in conjunction with the 2019 course.</i></p>	
<p><i>Secondary Priorities</i></p>	
<ul style="list-style-type: none"> • Further investigate development of online mini-courses on special topics 	Burfisher, van der Mensbrugge, Hertel
<p><i>Development of the GTAP-HET Course began in late 2018. The first course will be held October 7-November 17, 2019.</i></p>	
<ul style="list-style-type: none"> • Continue development and implementation of an “Alumni Outreach/Continued Learning Initiative” for short course graduates 	Keeney
<p><i>No update</i></p>	
<ul style="list-style-type: none"> • Develop options for accommodating growing demand for mentors 	Batta, Burfisher, Countryman
<p><i>The GTAP Conference Mentoring Program was reshaped and rebranded in late 2018 and will be rolled out at the 2019 conference as the “GTAP Conference Scholars Program”. The goal of the scholars program is to facilitate the integration of first-time student presenters into the GTAP Conference and Network by providing them the opportunity to engage in a professional research environment at a formative stage in their studies and careers. To achieve this goal, an advisor/advisee relationship will be established by the Center for Global Trade Analysis in mid-April in an effort to help the advisee deliver a successful conference presentation during one of the GTAP Scholars Program sessions (formerly known as “student sessions”), while also offering an avenue to develop and foster professional relationships during and after the conference. The hope is that completely combining and branding the former student sessions with the mentoring program will 1) provide the students that opt into the program and have their paper accepted for presentation an achievement to list on their CV, and 2) solve the issue of recruiting enough mentors to volunteer for the program as the total number needed will decrease.</i></p>	

5. Staffing Goal: To actively seek and encourage talented staff and graduate students

Tasks	Responsibility
New Staff	
<i>Primary Priorities</i>	
<ul style="list-style-type: none"> Hire a programmer/web designer to re-design the GTAP website and provide an architecture for a documentation wiki. 	van der Mensbrugge, Douglas
<i>The Center is working on launching a new website called the “GTAP-HUB” where data base and model aggregations, visualizations, documentation, and code will reside.</i>	
<ul style="list-style-type: none"> Hire a replacement operations manager 	van der Mensbrugge, Batta
<i>Holly McIntire was hired as the Center’s new Operations Manager and began in March 2019.</i>	

6. Collaboration Goal: Actively seek opportunities for fostering collaboration with institutions around the world.

Tasks	Responsibility
GTAP Conferences and Board Meetings	Batta, van der Mensbrugge
<i>Primary Priorities</i>	
<ul style="list-style-type: none"> 2019 Board Meeting and Conference (Warsaw, Poland) 	Batta, van der Mensbrugge
<i>Planning for both events is well underway. A representative from the Faculty of Economic Science, University of Warsaw will present an update at the board meeting on the conference.</i>	
<ul style="list-style-type: none"> 2020 Board Meeting and Conference (Tokyo, Japan) 	Batta, van der Mensbrugge
<i>Nobuhiro Hosoe will present an update on the planning for the 2020 board meeting and conference. The conference program committee will meet over lunch during the conference to discuss plenary speakers, organized sessions, and funding.</i>	
<ul style="list-style-type: none"> 2021 Conference Proposal 	Batta, van der Mensbrugge
<i>Amanda Countryman and Ginger Batta prepared and submitted a proposal for the 2021 board meeting and conference to be held at Colorado State University in the USA. This proposal was circulated to the board in October 2018. Further information on this proposal will be presented during the board meeting, followed by a vote.</i>	
<ul style="list-style-type: none"> 2022+ Conference Proposal 	Batta, van der Mensbrugge
<i>The Center is investigating holding the 2022 board meeting and conference in southern Africa.</i>	

7. Communication Goal: To facilitate communication amongst members of the network as well as between the Center and key stakeholders

Tasks	Responsibility
User Support	
<i>Primary Priorities</i>	
<ul style="list-style-type: none"> GTAP-L, gtap support, contactgtap: continue offering support 	Batta, Chepeliev
<i>Support has been given as usual, through gtap support, contactgtap and GTAP-L. Maksym Chepeliev monitors inquiries sent to the gtap support address and Ginger Batta handles those sent to the contactgtap address.</i>	
<ul style="list-style-type: none"> Website redesign/redevelopment 	Douglas, van der Mensbrughe
<i>No update</i>	
Strategic Communication	
<i>Primary Priorities</i>	
<ul style="list-style-type: none"> GTAP Social Media – continue to increase presence 	Batta, Keeney
<i>The Center continues to make a concerted effort to increase GTAP’s profile on social media, centered mostly on Twitter, Facebook, and LinkedIn. Guidelines and processes for Center faculty and staff to post have been established and communicated.</i>	
<ul style="list-style-type: none"> Publish third volume of the <i>Journal of Global Economic Analysis</i> 	Hertel, Winchester
<i>The JGEA has now completed its third full year, with two issues published each year. We are also now beginning to build a pipeline of papers.</i>	

Proposed Activities over the Next Year and Beyond

The goals and objectives are discussed in detail below. Here we include a summary of the proposed objectives for the coming year.

1. Data goal: To improve the quality of data products

Tasks	Responsibility
<i>Primary Priorities</i>	
<ul style="list-style-type: none"> Procurement: Macroeconomic, trade, and tariff data 	Aguiar
<ul style="list-style-type: none"> Procurement: Continue to work with IO table contributors 	Aguiar
<ul style="list-style-type: none"> Improve IO tables transition process 	McDougall
<ul style="list-style-type: none"> Review of labor and land disaggregation from value added 	Corong
<ul style="list-style-type: none"> Agricultural Production Targets (FAO): special version of GTAP 10 	Chepeliev
<ul style="list-style-type: none"> Improvement of the agricultural production targeting (APT) 	Chepeliev
<ul style="list-style-type: none"> Development of the GTAP non-CO₂ GHG and air pollution databases 	Chepeliev
<ul style="list-style-type: none"> Development of the cross-entropy approach to the updating and construction of the GTAP Data Base 	Chepeliev
<ul style="list-style-type: none"> GTAP-Power database 	Chepeliev
Addition/Improvement of Datasets used in GTAP Data Base (core)	Aguiar
<i>Secondary priorities:</i>	

• Development of the disaggregated agricultural database for the GTAP PE-GE model	Chepeliev
• Energy subsidies database	Chepeliev
• GTAP food balance sheets	Chepeliev
• Examine integration of biofuels into standard data base (in addition separation of heat and power)	Chepeliev, McDougall, Taheripour
• Data / program separation	McDougall
• Procurement: Domestic support and export subsidies	Aguiar
• Procurement: New bilateral services trade	McDougall
<i>Tertiary Priorities</i>	
• Agricultural Production Targeting (APT) integration into FIT	McDougall
• Dwellings Module	Aguiar
• Procurement: Energy data	Chepeliev
• Procurement: Income and factor taxes	McDougall
Addition/Improvement of Satellite Data (core)	Aguiar
<i>Primary Priorities</i>	
• Domestic Margins: special version for GTAP 10	Corong
• Multi-region Input Output Database (GTAP-MRIO)	van der Mensbrugge
• GDyn database	Golub
• GMIG database	Corong
• Land use database	Baldos
• Update Power and non-CO ₂ GHG and air pollution database	Chepeliev
• Food balance sheets	Chepeliev
• SSP DB	Chepeliev

2. Research Goal: To actively participate in quantitative economic analysis of pressing global issues

Tasks	Responsibility
<i>Primary Priorities</i>	

3. Model Goal: To promote further development of GTAP-based models

Tasks	Responsibility
<i>Primary Priorities</i>	
• GTAP-PE-TRQ	Golub
• GDyn	Golub

4. Education Goal: To expand and improve global economic analysis education worldwide

Tasks	Responsibility
Education Plan	Various

<i>Primary Priorities</i>	
• Dynamic Short Course	Aguiar, Batta, Douglas
• GTAP Short Course	Keeney, Batta, Douglas
• GTAP 101 Courses	Countryman, Batta, Douglas
• GTAP PTA Course	Walmsley, Strutt, Batta, Douglas
• GTAP-HET Course	Akgul, Batta, Douglas
<i>Secondary Priorities</i>	
• Continue investigating additional special topic online mini-courses	van der Mensbrugge, Hertel
• Continue development and implementation of an “Alumni Outreach/Continued Learning Initiative” for short course graduates	Keeney

5. Staffing Goal: To actively seek and encourage talented staff and graduate students

Tasks	Responsibility
<i>Primary Priorities</i>	
<i>No changes planned for the moment with the exception of recruiting 1 or 2 additional graduate students.</i>	van der Mensbrugge

6. Collaboration Goal: Actively seek opportunities for fostering collaboration with institutions around the world.

Tasks	Responsibility
GTAP Conferences and Board Meetings	Batta, van der Mensbrugge
<i>Primary Priorities</i>	
• 2019 Board Meeting and Conference (Warsaw, Poland)	Batta, van der Mensbrugge
• 2020 Board Meeting and Conference (Tokyo, Japan)	Batta, van der Mensbrugge
• 2021 Conference Proposal (Fort Collins, Colorado, USA)	Batta, van der Mensbrugge
• 2022 Conference Proposal (Africa)	Batta, van der Mensbrugge

7. Communication Goal: To facilitate communication amongst members of the network as well as between the Center and key stakeholders.

Tasks	Responsibility
Improve user support system	
<i>Primary Priorities</i>	
• GTAP-L, gtap-support, contactgtap: continue offering support	Batta, Chepeliev

<ul style="list-style-type: none"> Website redesign/redevelopment 	Douglas, van der Mensbrugge
Strategic Communication	
<i>Primary Priorities</i>	
<ul style="list-style-type: none"> GTAP Social Media – continue to increase presence 	Batta

The GTAP Data Base and Other Data Projects: Progress and Future Objectives

Subsequent to the imminent release of GTAP 10, we focus our attention to the satellite databases and documentation. In particular, those that have to do with brand new satellites such as MRIO and domestic margins.

For version 11, the latest available year with complete information is 2017. We will plan to introduce the following three inputs into the first pre-release: macroeconomic, merchandise bilateral trade and tariff data by the end of 2019. The second pre-release would include domestic support, export subsidies and services trade data. The third pre-release would include energy data and income/factor taxes.

Regarding services trade, we plan more fully to exploit the IMF's Balance of Payment statistics, and complement them with estimates publicly available from WTO/OECD.

We encourage the contribution of input-output tables (IOTs) using our new sector definitions, based on latest International Standard Industry Classification (ISIC). In the meantime, we have developed a procedure that transforms our legacy IOTs based on ISIC Revision 3 to 4.

To support the transition of the input-output tables to Revision 4, we aim, firstly, to procure more ISIC-Rev.-4-based tables, and secondly, to improve our facility for remapping legacy ISIC-Rev.-3-based tables, both by procuring more highly disaggregated input-output tables to serve as templates for the remapping, and by improving the robustness and flexibility of the remapping software.

In terms of agricultural production targeting, we will take advantage of FAO information for improved targets.

We will also review the labor and land disaggregation from value added in an effort to improve the quality of the database.

Agricultural production targeting. Under the current approach OECD and EU data, which covers 46 countries to target the agricultural output. Current approach has several drawbacks. This includes high share of unclassified (undistributed) agricultural output reported by OECD, non-reporting (misreporting) of some agricultural commodities (e.g. sugar output is used to derive targets for sugar cane, output of grapes used for wine production is included into wine sector, etc.), non-reported targets for most developing countries (e.g. India, African countries, etc.). We have been working on the application of the FAO data to derive agricultural production targets for 133 GTAP regions and their comparisons with OECD, EUROSTAT and other data sources. Special release of the GTAP 10 database with FAO-based agricultural targeting will be released.

GTAP PE-GE agricultural database. Policy simulations with the GTAP PE-GE model heavily relies on the detailed data inputs. To facilitate the agricultural policy simulations with the GTAP PE-GE model we are developing a special version of the GTAP database with agricultural sector disaggregated at the commodity level. In this process, we are relying on the FAO, MACMAP and GTAP data. A special version of the GTAP PE-GE database with disaggregated agricultural sector is under development.

Satellite emission accounts. GTAP non-CO₂ GHG and air pollution database are being updated to the 2014 reference year based on the EDGAR and FAO data.

Energy subsidies. Update to the 2014 reference year. Special release of GTAP 10.

Food balance sheets. GTAP-consistent food balance sheets with dietary and nutritional information covering all 141 regions in the database are under development. This information is based on the FAO country-level food balance sheets available at the high level of commodity details, which we map to the GTAP database. This allows to track changes in the per capita food supply quantity, as well as protein and fat supply levels by regions.

Research and Model Development: Progress and Future Objectives

Research Goal: To actively participate in quantitative economic analysis of pressing global concern in the areas of Trade and Development, Energy-Economy Interactions, Land Use and Climate Change

Model Goal: To promote further development of GTAP-based models

Further development of the standard and dynamic GTAP Models continue to be core research activities for Center staff. Related to this theme, the following activities were conducted this year.

Core Funded Projects

None reported

Externally Funded Projects

Modeling, Parameterization, and Applied Policy Analysis with GTAP Firm Framework

- **Staff Involved:** Zeynep Akgul and Thomas Hertel
- **External Collaborators:** David Riker (USITC)
- **Description:** The USITC project focuses on further development of GTAP-HET model and parameterization.
- **Status:** *The USITC project started on May 31, 2016 and focuses on further development of GTAP-HET model and parameterization. In addition to the two papers published on the USITC Working Paper Series in 2017, one more paper related to the project is published in 2018. The paper is titled as “Taking Melitz Seriously: A Simple Approach for Identifying Structural Parameters of Trade Models with Firm Heterogeneity” and it focuses on estimating the shape parameter of Pareto distribution and elasticity of substitution across varieties by using firm-level data. Currently, we are working on two more papers. One of them is a documentation of the updates on the GTAP-HET model. The second one is the implementation of the parameter estimation with a policy analysis. As a part of the project, we also provided training sessions in ITC to build capacity on practical uses of GEMPACK to conduct policy analysis with GTAP simulations. The USITC project will continue until August 30, 2019.*

Dynamic-stochastic analysis of land use in the context of long run uncertainties

- **Staff Involved:** Alla Golub and Thomas Hertel
- **External Collaborators:** Yongyang Cai and Brent Sohngen (Ohio State University)
- **Description:** Analysis of long run, socially optimal paths of R&D, forestry management and land use in the context of demographic, climatic and macro-economic uncertainties
- **Status:** *Funding from NSF*

Development of the hybrid GTAP-PE model

- **Staff Involved:** Angel Aguiar, Erwin Corong and Dominique van der Mensbrugge
- **External Collaborators:** Natalie Soroka, Chris Rasmussen (Department of Commerce)
- **Description:** The goal of this project is to develop a new trade modeling framework that could integrate both partial equilibrium (PE) and general equilibrium (GE) models for more accurate and timely analysis of FTAs and trade policy scenarios for GTAP sectors disaggregated at the HS6 level. It is an extension of earlier versions of the so-called GTAP-PE model developed by Grant, Hertel and Rutherford (2006 and 2009) and Narayanan, Hertel and Horridge (2010). The new model code takes off from those earlier studies and incorporates the PE module in the new facelift version of the GTAP model. The project also includes formalizing a workflow to simplify the task of extracting the HS6 level data from the TRAINS database and reconciling the HS6 level data with the GTAP Data Base.

- **Status:** *Funding from U.S. Department of Commerce*

Development of a New Trade Modeling Framework to Allow for More Precise Disaggregated Impact Results

- **Staff Involved:** Maksym Chepeliev, Alla Golub, Thomas Hertel
- **External Collaborators:** Jayson Beckman (Economic Research Service (ERS), USDA)
- **Description:** The goal of this project is to develop a new trade modeling framework that could integrate both partial equilibrium (PE) and general equilibrium (GE) models for more accurate and timely analysis of FTAs and trade policy scenarios for many more disaggregated agricultural products than is currently feasible. The results of the new model will allow for more precise trade impacts estimates for a significant products at HS6 level that are currently lumped together in highly aggregated GTAP sectors such as Veg & Fruit and Dairy. In addition, the new model will allow more detailed analysis of grains, oilseeds and animal products.
- **Status:** *Funding from USDA*

How U.S. Agriculture will fare under the USMCA and retaliatory tariffs

- **Staff Involved:** Maksym Chepeliev, Dominique van der Mensbrugge, Wallace Tyner.
- **External Collaborators:** Megan Provost (Farm Foundation), Constance Cullman (Farm Foundation).
- **Description:** Estimate the impacts on U.S. agriculture of the recently agreed to United States-Mexico-Canada Agreement (USMCA), agricultural tariffs imposed by Canada and Mexico in retaliation of the U.S. actions in steel and aluminum, as well as agricultural tariffs imposed by other countries such, as China.
- **Status:** *Completed*

Publications

- Ahmad, S., Z. Akgul, (2018). *Taking Melitz Seriously: A Simple Approach for Identifying Structural Parameters of Trade Models with Firm Heterogeneity*, USITC Working Paper, 2018-8-D.
- Akgul, Z., C. Carrico and M. Tsigas, (2018). *Labor Composition of Fixed Costs, Heterogeneous Firms, and the U.S. Labor Market*. Accepted for Thomas Hertel's Festschrift.
- Baldos, U., Hertel, T., and Moore, F.C. (2018). *The Biophysical and Economic Geographies of Global Climate Impacts on Agriculture*. <https://www.gtap.agecon.purdue.edu/resources/download/9021.pdf>
- Beckman, J., C. Estrades and A. Aguiar (2019). *Export taxes, food prices and poverty: a global CGE evaluation*. *Food Security*. <https://doi.org/10.1007/s12571-018-0876-2>. See also short version published in VoxEU: <https://voxeu.org/article/impacts-export-taxes-agricultural-trade>
- Beckman, J., Estrades, C., Flores, M., and Aguiar, A. (2018). *The impacts of export taxes on agricultural trade*. Technical report, National Bureau of Economic Research. See also short version published in VoxEU: <https://voxeu.org/article/impacts-export-taxes-agricultural-trade>
- Britz, W. and D. van der Mensbrugge (2018), *CGEBox: A Flexible, Modular and Extendable Framework for CGE Analysis in GAMS*, *Journal of Global Economic Analysis*, (3)2, 84-121. <https://jgea.org/resources/jgea/ojs/index.php/jgea/article/view/70>
- Chepeliev, M., Aguiar, A., and van der Mensbrugge, D. (2018). *Climate change impacts on agriculture using improved multi-region input-output framework*. Available at SSRN 3231252
- Chepeliev, M., McDougall, R., and van der Mensbrugge, D. (2018). *Including Fossil-fuel Consumption Subsidies in the GTAP Data Base*. *Journal of Global Economic Analysis*, Vol. 3, No. 1, pp. 84-121. <https://jgea.org/resources/jgea/ojs/index.php/jgea/article/view/60>

- Chepeliev, M., Tyner, W., and van der Mensbrugge, D. (2018). *How Differing Trade Policies May Impact U.S. Agriculture: The Potential Economic Impacts of TPP, USMCA, and NAFTA*. GTAP Working Paper No. 84. <https://www.gtap.agecon.purdue.edu/resources/download/9171.pdf>
- Chepeliev, M., Tyner, W., and van der Mensbrugge, D. (2018). *How U.S. Agriculture Will Fare Under the USMCA and Retaliatory Tariffs*. Farm Foundation Policy Brief, <https://www.farmfoundation.org/wp-content/uploads/2018/10/Trade-Analysis-10-31-18-Final.pdf>
- Corong, E., and A. Aguiar (Forthcoming) *Economic Impact of Skilled Labor Mobility within the ASEAN Economic Community* in E. Gentile (ed), *Skilled Labour Mobility and Migration: Challenges and Opportunities for the ASEAN Economic Community*. Edward Elgar. Link to the book announcement: <https://www.e-elgar.com/shop/skilled-labor-mobility-and-migration>
- Fally, T. and Hillberry, R. (2018). *A Coasian Model of International Production Chains*. *Journal of International Economics*. (Forthcoming). https://are.berkeley.edu/~fally/Papers/FallyHillberry_JIE.pdf
- Hillbery, R.H., Fernandes, A.M., and Alcántara, A.M. (2018). *Trade Facilitation Reform - The Impact of Targeted Sampling on Import Compliance*. The World Bank (Report Number 125873). Published May 1, 2018. <http://documents.worldbank.org/curated/en/274891525159329603/Trade-Facilitation-Reform-The-Impact-of-Targeted-Sampling-on-Import-Compliance>
- Peña-Lévano, L.M., Taheripour, F., and Tyner, W.E. (2019). *Climate Change Interactions with Agriculture, Forestry Sequestration, and Food Security*. *Environmental and Resource Economics*.
- Taheripour, F. and Tyner, W.E. (2018). *Impacts of Possible Chinese 25% Tariff on U.S. Soybeans and Other Agricultural Commodities*. *Choices: The Magazine for Food, Farm, and Resource Issues*. 30(2).
- Taheripour, F. and Tyner, W.E. (2018). *Impacts of Possible Chinese Protection on US Soybeans*, GTAP Working Paper No. 83, GTAP center, Purdue University.
- Taheripour, F., Hertel, T.W., Gopalakrishnan, B.N., Sahin, S., Markandya, A., and Mitra, B.K. (2018). *Climate change and water scarcity: Growing risks for agricultural based economies in South Asia*. In Hsu Sara (Ed.). *Routledge Handbook of Sustainable Development in Asia*. London: Routledge.
- van der Mensbrugge, D. (2018), *The Standard GTAP Model in GAMS, Version 7*. *Journal of Global Economic Analysis*, (3)1, 1-83. <https://jgea.org/resources/jgea/ojs/index.php/jgea/article/view/62>
- Walmsley, T., Narayanan, B., Aguiar, A., and McDougall, R. (2018). *Building a global database: consequences for the national I–O data*. *Economic Systems Research*, pages 1–19
- Zhao, X., van der Mensbrugge, D., Keeney, R., and Tyner, W.E. (2019). *Improving the way land use change is handled in economic models*. *Economic Modelling* ISSN 0264-9993. <https://doi.org/10.1016/j.econmod.2019.03.003> .

Presentations

- Akgul, Z. based on work with C. Carrico and M. Tsigas (2018). *Labor Composition of Fixed Business Costs, Heterogeneous Firms, and the U.S. Labor Market*. Seminar at the United States International Trade Commission (USITC), Washington D.C.

- Akgul, Z., C. Carrico, M. Tsigas. (2018). *Effects of Trade on the United States Labor Market: Mobility and Market Structure*. The Society of Government Economists Session Presentation at the ASSA 2018 Annual Meeting, Philadelphia PA, USA, January 2018.
- Baldos, U., Hertel, T., and Moore, F. (2018). *The Biophysical and Economic Geographies of Global Climate Impacts on Agriculture* (Presented at the 21st Annual Conference on Global Economic Analysis, Cartagena, Colombia). Purdue University, West Lafayette, IN: Global Trade Analysis Project (GTAP). Retrieved from https://www.gtap.agecon.purdue.edu/resources/res_display.asp?RecordID=5633
- Baniya, S. and Z. Akgul. (2018). *The Effects of Transportation Infrastructure on Export Participation and Composition*, AEA Poster Session at the ASSA 2018 Annual Meeting, Philadelphia PA, USA, January 2018, (Presented by S. Baniya).
- Cheng, Y. and Hillberry, R. (2018). *U.S. county-level impacts of growth in China's demand for agricultural imports* (Presented at the 21st Annual Conference on Global Economic Analysis, Cartagena, Colombia). Purdue University, West Lafayette, IN: Global Trade Analysis Project (GTAP). Retrieved from https://www.gtap.agecon.purdue.edu/resources/res_display.asp?RecordID=5591
- Chepeliev, M., Aguiar, A., and van der Mensbrugghe, D. (2018). *Climate Change Impacts on Agriculture Using Improved Multi-Region Input-Output Framework*. 26th International Input-Output Conference, Juiz de Fora, Brazil.
- Chepeliev, M., and Aguiar, A. (2018). Global Economic Analysis Framing the future through the Sustainable Development Goals, Cartagena, Colombia. *Agricultural Production Targeting in the GTAP Data Base: a Look Ahead*. 21st Annual Conference on Global Economic Analysis.
- Chepeliev, M., and van der Mensbrugghe, D. (2018). Invited presentation, *Global Fossil-fuel Subsidy Reform and Paris Agreement*. Department of Food and Resource Economics, University of Copenhagen, Copenhagen, Denmark.
- Chepeliev, M., and van der Mensbrugghe, D. (2018). Framing the future through the Sustainable Development Goals, Cartagena, Colombia. *Global Fossil-fuel Subsidy Reform and Paris Agreement*. 21st Annual Conference on Global Economic Analysis.
- Chepeliev, M., Diachuk, O., and Podolets, R. (2018) *Transition towards High Share of Renewables in Ukraine: Linked Energy System and CGE Model Approach*, 26th International Input-Output Conference, Juiz de Fora, Brazil.
- Corong, E. (2018). *GTAP Data Base version 10 with domestic margins* (Presented at the 21st Annual Conference on Global Economic Analysis, Cartagena, Colombia). Purdue University, West Lafayette, IN: Global Trade Analysis Project (GTAP). Retrieved from https://www.gtap.agecon.purdue.edu/resources/res_display.asp?RecordID=5609
- Corong, E., van der Mensbrugghe, D. (2019). *Trade Policies using the ENVISAGE Model*. Modeling of Tariff Policies Workshop, IMF and World Bank, Washington DC.
- Cortes Selva, A. (2018). *The Economic Case for Renewable Energy: a Recursive Dynamic Model Analysis for the Nicaraguan Economy* (Presented at the 21st Annual Conference on Global Economic Analysis, Cartagena, Colombia). Purdue University, West Lafayette, IN: Global Trade Analysis Project (GTAP). Retrieved from https://www.gtap.agecon.purdue.edu/resources/res_display.asp?RecordID=5555
- Golub, A., Sohngen, B., Cai, Y., Hertel, T., and J. Kim. 2018. *Cost of forest carbon sequestration as a response to climate change in the presence of climate impacts*. AAEA 2018 Annual Meeting, August 5-7, Washington, D.C.

- Haqiqi, I., Hertel, T.W., Schlenker, W., and Grogan, D. (2018). *Climate, Soil Moisture, and Yield: A Fine-Scale Analysis of Climate and Land Interactions*. US-DOE, Office of Science/BER PI Workshop, Washington DC.
- Hertel, T.W. (2018). *Managing the Global Commons: Sustainable Agriculture and Use of World's Land and Water Resources*. Conference on Convergence and the Future of Research, West Lafayette, Indiana.
- Hertel, T.W. (2018). *Market integration and future food security in the context of spatially heterogeneous population and productivity growth*. Symposium on the New Malthusianism, Jesus College, Cambridge University, United Kingdom.
- Hertel, T.W. (2018). *Sustainable Development Goals: New Science Balancing a Hyperconnected World*. American Association for the Advancement of Science (AAAS) Annual Meeting, Austin, Texas.
- Hertel, T.W. (2019). *Managing the Global Commons: Sustainable Agriculture and the Use of the World's Land and Water Resources in the 21st Century*. American University of Beirut, Beirut, Lebanon.
- Hertel, T.W., Haqiqi, I., and Liu, J. (2018). *Driving the Frontier of Agricultural Economics Research through Geospatial Data: Implications for Long Run Sustainability*. Conference on Data-driven Innovations in Agricultural Research, National Agricultural Library, Washington, D.C.
- Hillberry, R. (2018). *Globalization and International Trade Policy Over the Last 150 Years*. Wabash College, Crawfordsville, Indiana.
- Kabir, K.. and Hertel, T. (2018). *Estimating Elasticities for Crop Production in Niger using Maximum Entropy* (Presented at the 21st Annual Conference on Global Economic Analysis, Cartagena, Colombia). Purdue University, West Lafayette, IN: Global Trade Analysis Project (GTAP). Retrieved from https://www.gtap.agecon.purdue.edu/resources/res_display.asp?RecordID=5534
- Kabir, K. and van der Mensbrugge, D. (2019). *Summary: Center for Global Trade Analysis Baseline Project*. First Forum on Scenarios for Climate and Societal Futures. Josef Korbel School of International Studies, University of Denver.
- Liu, J., Hertel, T., Kucharik, C., Baldos, U., Larrisa, J., and Ramankutty, N. (2018). *Using Targeted Policies to Manage Nitrogen for Sustainable Agriculture in the US* (Presented at the 21st Annual Conference on Global Economic Analysis, Cartagena, Colombia). Purdue University, West Lafayette, IN: Global Trade Analysis Project (GTAP). Retrieved from https://www.gtap.agecon.purdue.edu/resources/res_display.asp?RecordID=5475
- McClain, V. and Hertel, T. (2018). *Estimation of parameters for the SIMPLE model using a maximum entropy approach* (Presented at the 21st Annual Conference on Global Economic Analysis, Cartagena, Colombia). Purdue University, West Lafayette, IN: Global Trade Analysis Project (GTAP). Retrieved from https://www.gtap.agecon.purdue.edu/resources/res_display.asp?RecordID=5613
- Sliver, R., Haqiqi, I., Hertel, T.W., and Schlenker, W. (2018). *Assessing the Suitability of NASA Earth Exchange Global Daily Downscaled Projections (NEX-GDDP) Dataset for Coupled Human-Environment Analysis*. US-DOE, Office of Science/BER PI Workshop, Washington DC.
- Taheripour, F. (2018). *Important topics in bioeconomy modeling and analyses: Past to future*. Bioeconomy Modeler's Workshop Golden, National Renewable Energy Laboratory, Colorado.
- Taheripour, F. (2018). *Production and Consumption of Protein, Fats, and Carbs in the US: Role of Livestock Sector*. Sustainability & Land Use Change Workshop, The National Biodiesel Foundation, St. Louis, Missouri.

- Taheripour, F. (2018). *Vegetable Oil Production, Substitutions, and Emissions*. Sustainability & Land Use Change Workshop, The National Biodiesel Foundation, St. Louis, Missouri.
- Taheripour, F., Scott, D., Hurt, C.A., and Tyner, W.E. (2018). *Technological progress in US crop production: Productivity gains, abundant supply of crop calories, evolution in the livestock industry and implications for biofuel production*. 30th International Conference of Agricultural Economists, The annual International Association of Agricultural Economists Meeting, Vancouver.
- Taheripour, F., Zhao, X., and Tyner, W. (2018). *Modeling land use in large scale global computable general equilibrium models: Preserving physical area of land* (Presented at the 21st Annual Conference on Global Economic Analysis, Cartagena, Colombia). Purdue University, West Lafayette, IN: Global Trade Analysis Project (GTAP). Retrieved from https://www.gtap.agecon.purdue.edu/resources/res_display.asp?RecordID=5634
- Taheripour, T. (2018) U.S. Environmental Protection Agency Public Hearing on RFS Standards for 2019 and BBD Volumes for 2020, Ypsilanti, Michigan.
- Taheripour, T., Scott, D., and Tyner, W.E. (2018). *Evolutions in US crop and livestock sectors: Implications for estimating biofuels induced land use changes*. 2018 AAEA Annual meeting, Washington, DC.
- Tyner, W.E. (2018). *Comparison between GTAP-BIO and GLOBIOM*. Sustainability & Land Use Change Workshop, The National Biodiesel Foundation, St. Louis, Missouri.
- Tyner, W.E. (2018). *Economic Impacts of Indiana Statewide Broadband Deployment*. Indiana Broadband Symposium, Indianapolis.
- Tyner, W.E. (2018). *Impacts of the Chinese tariffs on US agricultural products*. US SOY Global Trade Exchange Conference, Kansas City.
- Tyner, W.E. (2018). *Induced land use change analysis and economic availability of feedstocks for aviation biofuels*. Civil Aviation Alternative Fuels Initiative (CAAFI), Washington DC.
- Valqui, B., Webster, M., Sun, S., Hertel, T.W., and Liu, J. (2018). *Coupled Energy-Water-Agriculture Dynamics: Biomass Co-Firing in the MISO region*. US-DOE, Office of Science/BER PI Workshop, Washington DC.
- van der Mensbrugge, D. (2018). *Impacts on agriculture from the USMCA and other changes in trade policies*. Illinois Farm Bureau (host), Illinois Agricultural Legislative Roundtable, Bloomington, Illinois.
- van der Mensbrugge, D. (2018). Panelist at the Farm Foundation Forum, National Press Club, Washington DC.
- van der Mensbrugge, D. (2019). *How differing trade policies may impact the U.S. food and agriculture sector*. Farm Foundation Forum, Washington DC.
- Yang, A., Gouel, C., and Hertel, T. (2018). *Will Income or Population be the Main Driver of Food Demand Growth to 2050?* (Presented at the 21st Annual Conference on Global Economic Analysis, Cartagena, Colombia). Purdue University, West Lafayette, IN: Global Trade Analysis Project (GTAP). Retrieved from https://www.gtap.agecon.purdue.edu/resources/res_display.asp?RecordID=5618
- Zanetti De Lima, C., and Gurgel, A. (2018). *The role of double cropping modeling for policy assessment in Brazil* (Presented at the 21st Annual Conference on Global Economic Analysis, Cartagena, Colombia).

Purdue University, West Lafayette, IN: Global Trade Analysis Project (GTAP). Retrieved from https://www.gtap.agecon.purdue.edu/resources/res_display.asp?RecordID=5606

Awards

Thomas Hertel

- Fellow, American Association for the Advancement of Science, 2018
- Purdue University College of Agriculture Outstanding Graduate Teacher and Mentor for 2019

Wally Tyner

- 2019 AAEA Fellow
- Named to Purdue University's Book of Great Teachers

Education and Network

Additions to the GTAP Paper Series

- **Impacts of Possible Chinese Protection on US Soybeans**
by Taheripour, Farzad and Wally Tyner
GTAP Working Paper No. 83
- **How Differing Trade Policies May Impact U.S. Agriculture: The Potential Economic Impacts of TPP, USMCA, and NAFTA**
by Chepeliev, Maksym, Wally Tyner and Dominique van der Mensbrugge
GTAP Working Paper No. 84
- **Tom Hertel's influence and its lessons about academic inquiry**
by Hillberry, Russell and David Hummels
GTAP Working Paper No. 85

Journal of Global Economic Analysis

In 2018, the *Journal of Global Economic Analysis* released the following issues and were included in the Web of Science Emerging Sources Citation Index. This mark of quality will improve the visibility of the journal, and articles published in the JGEA will now be included in analyses conducted on Web of Science data. This milestone also means that the JGEA is under consideration for inclusion in the flagship Social Sciences Citation Index.

Vol 3, No 1 (2018)

Advances in Methods and Theory

- **The Standard GTAP Model in GAMS, Version 7**
Dominique van der Mensbrugge

Advances in Data and Parameters

- **Including Fossil-fuel Consumption Subsidies in the GTAP Data Base**
Maksym Chepeliev, Robert McDougall, Dominique van der Mensbrugge
- **New Data for Representing Irrigated Agriculture in Economy-Wide Models**
Kirby Ledvina, Niven Winchester, Kenneth Strzepek, John Reilly

Advances in Pedagogy

- **Reflections on the Economic Modelling of Free Trade Agreements**
Lars Nilsson

Vol 3, No 2 (2018)

Advances in Methods and Theory

- **A Parsimonious Approach to Incorporate Firm Heterogeneity in CGE-Models**
Eddy Bekkers, Joseph Francois
- **GTAP-VA: An Integrated Tool for Global Value Chain Analysis**
Alessandro Antimiani, Luca Salvatici, Ilaria Fusacchia

Advances in Software

- **CGEBox: A Flexible, Modular and Extendable Framework for CGE Analysis in GAMS**
Wolfgang Britz, Dominique van der Mensbrugge

Advances in Data and Parameters

- **Prefectural Representation of the Regions of China in a Bottom-up CGE Model: SinoTERM365**
Glyn Wittwer, Mark Horridge

Courses

The Center continues to examine ways in which it educates network members. The standard and dynamic short course content both had significant updates to reflect changes to both models. The GTAP 101 and PTA Courses continue to see consistent demand, and the inaugural offering of the GTAP-HET Course will held in late 2019 under the tutelage of Zeynep Akgul.

2019 Course Offerings

- GTAP Dynamic Short Course – April 10-14
- GTAP 101 Courses – April 22 - June 9 and September 9 – October 27
- GTAP Short Course – August 3-8
- GTAP PTA Course – September 16 – October 27
- GTAP-HET Course – October 7 - November 17

Conferences

Proposals for the conferences below can be accessed at:

www.gtap.agecon.purdue.edu/events/Board_Meetings/2019/supp_material.asp

Conference Travel Funding Opportunities

- **Ken Pearson Travel Funds** - In 2019, the Centre of Policy Studies, Victoria University, graciously endowed travel funds for one participant, in the name of the late Ken Pearson, in recognition of his many contributions to the GTAP Network.
- **Alex Meeraus / Thomas Rutherford Travel Funds** - In 2019, the GAMS Development Corporation awarded two participants with travel funding, in honor of Alex Meeraus and Thomas Rutherford.

The purpose of both funding opportunities is to provide a program to support the participation of promising young researchers at the annual GTAP conference and encourage their contribution to the use and further development of analytical software for CGE modelling.

Eligible candidates are early career researchers, within five years of the start of their career, and active in undertaking applied model-based analyses of real world problems using either GEMPACK or GAMS. It is also required that candidates have a paper accepted into the conference.

For the 2019 Conference, 16 individuals applied for consideration, and after deliberation by the funding committees, comprised each of a CoPS/GAMS and GTAP designee, as well as a member of the conference program committee, the following recipients were named.

Ken Pearson Funds
Turner Cotterman
Carnegie Mellon University
United State

Alex Meeraus / Thomas Rutherford Funds
Y.-H. Henry Chen
MIT Joint Program on the Science and Policy of Global Change
United States

Gessica Souza
CEDEPLAR - Universidade Federal de Minas Gerais
Brazil

2019 Conference (Warsaw, Poland)

A representative from the Faculty of Economic Science, University of Warsaw will present an update at the board meeting on the conference.

2020 Conference (Tokyo, Japan)

Nobuhiro Hosoe will present an update on the planning for the 2020 board meeting and conference. The conference program committee will meet over lunch during the conference to discuss plenary speakers, organized sessions, and funding.

2021 Conference (Proposed: Fort Collins, Colorado, USA)

Colorado State University and the Center for Global Trade Analysis have prepared and submitted a proposal for the 2021 conference to be held on the Colorado State University campus in Fort Collins. This proposal was circulated to the board in October 2018 for comments. Further information on this proposal will be presented at the board meeting followed by a formal vote.

2022+ Conferences

The Center for Global Trade Analysis is already investigating where in Africa to hold the 2022 board meeting and conference. If anyone has interest in hosting a future conference, or knows of a potential partnership, please contact Dominique van der Mensbrugge or Ginger Batta.

Research Fellows

In March 2019, a call was issued for research fellow nominations. The criteria for nomination remained unchanged from previous years. At the Advisory Board Meeting, Stephen Karingi, GTAP Research Fellows Committee Chair, will report on the committee's recommendations for recipients and invite a vote from the board. The GTAP Research Fellow Committee includes Karingi (Chair), Tom Hertel and Kenichi Kawasaki.

GTAP Network, Website and Usage Reports

Reports on the GTAP Network, website and usage may be found at:

www.gtap.agecon.purdue.edu/events/Board_Meetings/2019/supp_material.asp

Center Finances and Staffing

Finances

To be discussed at the meeting.

Staffing

Staffing Goal: To actively seek and encourage talented staff and graduate students

Allocation of Resources over the Next Year

An overview of how individuals are funded and all the activities they will spend their time over the next 12 months is detailed below. As you see, many of the Center's staff are externally funded (not supported by consortium funds or data base sales).

Staff Member	Status	Allocation						
Aguiar	100% core (except where funded by projects)	Work with I-O contributors	Documentation	I-O Educational Materials	Data Base (macro data, dwellings, I-O disaggregation, protection, trade)	Oversee release schedule	Research	Short Courses
Akgul	100% projects	Further development of GTAP-HET	Estimation/calibration of key parameters in firm het model	Research projects	GTAP-HET online course			
Baldos	100% projects	GTAP-AEZ model and database maintenance	SIMPLE model, web app and database development	Research on Food-Land-Water Nexus				
Batta	100% core	Program Management	Product Sales	Communication and Social Media	General Center administrative duties			
Chepeliev	100% core	Improvement of the APT in GTAP	GTAP Model, Data Base user support	Data Base and satellite data (SSPs, non-CO2, PE-GE, food balance sheets)	Documentation	Research	Short Course	
Corong	100% core (except where funded by projects)	Integration of domestic trade, transport, wholesale and retail margins into database/model	Data Base (running data construction programs for standard and updating GMig2 and MRIO)	"Guidelines for contributing IO / Supply-USE Tables"	Short Courses	Model Dev (GTAP-E, GTAP-Power 'facelift', GTAP w/ domestic margins, WTO Global Trade Model), GTAP-RD, GTAP PE	Research	
Douglas	100% core	Website						
Golub	100% projects	Dynamic, GTAP-E, PE land use model (GAMS)	Energy and Environ research	Satellite data (GDyn-E documentation)	Grad student supervision	Document GTAP-E and GDyn-E models	Short Courses	
Hertel	25% core except where funded by projects	Assist with Conference; serve on the Research Fellows Nominating Committee	Research	Grad Student Supervision	Assist/guide development of water and land use data and models for GTAP	Support development of pedagogical materials for GTAP-HET, the Melitz version of GTAP	Editing the <i>Journal of Global Economic Analysis</i>	Assist in Recruitment of Board Members
Liu	100% projects	Gridded SIMPLE-G models	Research on natural research and environmental issues	Research Big-Idea project science coordinator	Gridded data for the SIMPLE-G models	INFEWS: China US. AFRI Program: Econ Foundations of Long Run Agricultural Sustainability		
McDougall	100% core	Data Base Issues (IO remapping, trade in services)	Mentoring data team	Documentation	Changeover from Opus to GNU Make	Research	Short Courses	
McIntire	100% core	Assist with grants	Consortium memberships and invoicing	Center finances	General Center administrative duties			
van der Mensbrugge	50% core	Advisory Board relation management	Center management	Model development	Research	Scenario development	Grad student supervision	Short Courses
Zanetti De Lima	100% projects	Grid data and GTAP integration	Research on land-use and land-use changes	GTAP-InVEST model integration focus BES impacts				