



U.S. International Trade Commission Report - 2023

GTAP Model and Data Base Usage

The U.S. International Trade Commission continues to rely on the GTAP model and database for economy-wide analysis of trade and trade policy. The GTAP model remains an important component of our trade modeling portfolio, which also includes gravity models; industry-specific partial-equilibrium models; and other general-equilibrium models, such as those based on Caliendo, Dvorkin, and Parro (2019) or Dix-Carneiro et al. (2022).

This past year, we incorporated the GTAP model in staff research papers and contracts with outside organizations, as noted below. Notable topics include disaggregating the GTAP database to include U.S. state-level trade and incorporating industry-specific wages and unemployment in the GTAP model.

Publications and working papers

- Yuan, Wen Jin “Jean” and Marinos Tsigas (2022) “When Multinational Companies Come—A CGE Analysis of the Impact of Growing Inward FDI on the Indian Economy,” Working Paper 2022-11-B https://www.usitc.gov/publications/332/working_papers/2022_gtap_fdi_india_marinos_jean_1_1212022_wmp.pdf
- Yuan, Wen Jin “Jean”, Katherine Antonio and Arona Butcher (2022) “Incorporating Industry-Specific Wages and Unemployment into the GTAP Model: U.S.-EU Trade Liberalization Scenarios,” USITC Working Papers, September 2022 https://www.usitc.gov/publications/332/working_papers/2022-09-a_yuan_antonio_butcher_industry_wages_and_unemployment_in_gtap.pdf
- Corong, Erwin, Hans Lofgren, Maryla Maliszewska, Wen Jin Yuan, Dominique van der Mensbrugge (2023) “Impacts of China-US Decoupling on Mexican labor markets,” The World Bank, forthcoming.
- Bethmann, Erika, and Fernando Gracia, 2022, “The Impact of Non-tariff Measures within the EU-Mercosur Agreement on Member Countries and the United States,” USITC Working Papers, July 2022 (revised October). https://www.usitc.gov/publications/332/working_papers/2022-07-b_bethmann_gracia_ec_eu-mercosur_fta_revision_oct22.pdf

Presentations

- Fox, Alan. “Incorporating State by Country Trade into the WinDC Database and its Policy Implications,” 2023 Annual GTAP Conference, June 2023 (forthcoming)

- Yuan, Wen Jin “Jean” and Marinos Tsigas, “Incorporating Job Search Frictions and Unemployment into a GTAP Model Framework – An illustrative Simulation using the GTAP-L Model”, 2023 Annual GTAP conference, June 2023 (forthcoming)
- Chepeliev, Maksym, Maryla Maliszewska and Wen Jin “Jean” Yuan, “Climate Mitigation Policies, Comparative Advantage in International Trade, and the Restructuring of Global Value Chains (GVCs),” USITC seminar, February 2023
- Yuan, Wen Jin “Jean” and Marinos Tsigas, “When Multinational Companies Come—a CGE Analysis on the Impact of Growing Inward FDI on the Indian Economy,” Presentation at an Organized Session at the International Atlantic Economic Conference, October 2022.

Contracting projects

- **Developing a CGE model with Labor Market Features to Analyze Changes in Sectoral Wages, Employment and Unemployment** (with Wen Jin “Jean” Yuan and Marinos Tsigas.).The project has developed a CGE model that introduces labor market frictions to match job seekers with vacancies. It calibrates U.S. job search frictions and unemployment in GTAP industries, so that the model can simulate changes in employment, wages, and unemployment in the U.S. labor force resulting from changes in trade policies. The model also disaggregates the GTAP dataset for different types of U.S. workers. In the coming year, we hope to develop a recursive dynamic version of the framework to investigate the model’s dynamic properties
- **Conducting historical simulations, validation exercises and baseline projections using the GTAP-Recursive Dynamic (RD) model framework.** The Commission contracted with the Centre of Policy Studies (CoPS) at Victoria University to produce a historical decomposition of multiple countries in the GTAP model. Peter Dixon will be presenting the related paper, “What do GTAP databases tell us about technologies for industries and regions?” at the 2023 GTAP conference.