# GTAP Advisory Board 2022
# CEPII's Agency report

Period covered by the report: June 2021 — June 2022

# GTAP Model and Data Base Usage

In 2021, the CEPII updated the version of its CGE model embedding a detailed and explicit representation of GVCs and of GHG emissions, MIRAGE-e VA, to make it compatible with the GTAP MRIO 10.1 database (previously, the split code by ImpactEcon was used on GTAP 9). The GTAP MRIO 10.1 database is now the standard database used routinely with MIRAGE-e VA. This dataset is indeed of a great value when analysing questions related to energy use and trade, in relation with climate change and complex value chains.

Based on the updated GTAP and CEPII's satellite datasets, the Trade Policy team of the CEPII is conducting simulations along three main directions: i) the assessment of the economic and environmental impacts of the energy transition, with a special focus on the EU, ii) the assessment of the economic and environmental impacts of the African Continental Free Trade Area (AfCFTA) on African countries and iii) a cross-model comparison based on a common simulation of the impact of the EU-Canada free trade agreement.

# Publications

## Articles in peer reviewed journals

Fontagné L., Guimbard H., Orefice G. (2022), Tariff-based product-level trade elasticities, Journal of International Economics, vol. 137, n°July 2022, p. 103593 → Trade elasticities estimated at the level of GTAP 10.1 sectors freely available online: https://sites.google.com/view/product-level-trade-elasticity

Jafari, Y., Britz, W., Guimbard, H. and Beckman, J. (2021), Properly capturing tariff rate quotas for trade policy analysis in computable general equilibrium models, Economic Modelling, vol. 104.

## Working papers

Bellora C., Fontagné L. (2022), EU in search of a WTO-compatible Carbon Border Adjustment Mechanism, CEPII Working paper N°2022-01.

Fontagné L., Mitaritonna C., Zheng Y. (2022), Décollage du commerce intra-africain : l'impératif de croissance économique, La lettre du CEPII, N° 425 mars 2022

Fontagné L., Perego E., Santoni G. (2021), MaGE 3.1: Long-Term Macroeconomic Projections of the World Economy, CEPII Working Paper, N°2021-12.

# Presentations

Bellora C. (2021 - 2022). EU in search of a WTO-compatible Carbon Border Adjustment Mechanism. GTAP 2021, ETSG 2021, Club du CEPII 2021, Trade Economist Network (European Commission, OECD) 2022.

Guimbard, H. (2021). Quantitative impacts of the CETA agreement, using the MIRAGE model. Workshop BATMODEL.

Gouel, C. (2022). The Impact of Global Warming on Agriculture: An Equilibrium Perspective of Supply-Side Approaches. University of Illinois, CREATE seminar; XVI EAAE Congress; FAERE thematic workshop.

# Projects

Participation to the BATMODEL project (European commission's H2020 project). GTAP dataset has been used with various CGE models (CGEBox, MAGNET, MIRAGE) and a partial equilibrium model (CAPRI) to simulate the CETA (EU-Canada) agreement. BATModel stands for Better agri-food trade modelling for policy analysis.

Collaboration between UNECA and CEPII to assess the economic and environnemental impact of the African Continental Free Trade Agreement (AfCFTA). A new version of the model Mirage-e has been calibrated with the GTAP 10.1 dataset, new baseline from EconMap 3.1 and new trade elasticities (Fontagne et al., 2022). New estimations for services barriers have been also computed with the same database for a first set of simulations.

# Other activities

Several researchers from CEPII contributed as GTAP abstracts reviewers.