



Global Trade Analysis Project

Moving forward: Research priorities for economywide, quantitative trade policy analysis

Closing Panel

Presented by Thomas Hertel

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Motivation: The Changing Global Trade Landscape

- Trade policies less predictable introducing more uncertainty
- Industrial policies are in the ascendance
- Rapid growth in AI and digital services trade
- Global value chains increasingly vulnerable to disruption
- Shipping and warehousing wrestling with volatile demands
- Quantitative trade policy analysis has struggled to keep up with this rapidly evolving landscape

Objectives of the White Paper

- **Identify key areas of research where meaningful advances can be made**
- **Recruit lead authors to write ‘chapters’ in which they:**
 - Identify a specific challenge area related to trade policy assessment
 - Outline the potential for advances in theory, modeling and data to address these challenges in an economy-wide, quantitative context
 - Co-author the White Paper in a peer-reviewed journal, accompanied by deep dives (stand-alone papers) on selected topics
- **Disseminate findings widely with the goal of helping to shape future funding and research agendas around the world**

We draw inspiration from the Climate Science Community

- They regularly produce white papers that play an important role in shaping the community's research agenda, as well as future calls for research proposals from funding agencies

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Earth System Dynamics
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Perspective

Bringing it all together: science priorities for improved understanding of Earth system change and to support international climate policy

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Moving forward: Research priorities for economywide, quantitative trade policy analysis

Topic	Lead Authors
Market Access and Security	Joseph Francois and Emily Blanchard
Green transition	Frank van Tongeren and Sergey Paltsev
Digital Services and AI	Eddy Bekkers and Javier Lopez Gonzalez
Trade and Resilience	Simeon Ehui and Stephen Karingi
Investment and Multinationals	Robert Koopman and William Powers
Local impacts	Shenjia Chen and Janine Dixon
Addressing the credibility gap	Thomas Hertel and Lionel Fontagne
Research infrastructure	Erwin Corong and Marijke Kuiper
Synthesis	Arndt, Francois, Hertel and van Tongeren

Supply Chain Uncertainty and Security

- Economic integration brings benefits and risks
- Global supply chains increasingly vulnerable to disruption due to geopolitical and geographic shocks
- Temporary vs. structural shocks; short vs. long run disruption
- MRIO framework to estimate foreign production exposure
- Uncertainty affects trade and capital costs and shapes patterns of production, as well as trade flows
- Incorporate as certainty equivalent NTM



Green Energy Transition

- Green energy growth outstripping fossil fuels
- Fundamental shift from trading commodities to trade in investment goods
- Uncertainty complicates investments on both supply and demand sides
- Scale in production as well as foreseeable demand critical to deployment of green technologies
- Policies seek to reduce dependence on foreign supplies; mix of stimulating production and encouraging use



AI and Digital Services Trade

- **Central role for data and AI in today's economy**
- **Explosive growth in digital services trade and digitally ordered trade is difficult to track**
- **Cross border data flow restrictions and localization requirements raise challenges: balancing openness vs. trust**
- **What are the costs of regulatory heterogeneity? What role for digital trade agreements?**
- **Technology diffusion, aggravation of inequalities, shifting geopolitical environment**
- **Updating data infrastructure is key**
- **Innovative modeling is required to capture the role of data in the production of digital services**



Trade, Regional Integration and Resilience in the Global South

- Global South increasingly subject to external shocks
- Production networks must be resilient, ensuring food system stability and security
- Analytical frameworks must come to grips with informal markets, also addressing livelihoods and employment
- Africa moving towards regional integration: Will it be soft-regionalism & sector-led (ASEAN) or institution-led (EU)?
- Must better align models with policy needs



Investment and Multinationals

- Policy makers crave investment and technology transfer
- US, China and EU policies reshaping global landscape with spillover effects for other regions
- FDI is extremely sensitive to policy uncertainty: Option to wait
- Investment is underdeveloped in dynamic trade models
- Need for global, sector-mapped, bilateral FDI database
- Promise of integrating econometric estimation of firm behavior with economywide models



Local impacts of global trade policy

- Trade policies tend to have strong distributional impacts
- Policy makers want to understand the local impacts of trade policies, including effects on employment and real estate
- Need to go beyond representative households using microsimulation based on heterogeneous hhlds and firms
- Short run, disequilibrium impacts are key
- Search and match frictions for local labor markets
- Bottom up CGE models can track sub-national impacts, but limited to single country



Addressing the Credibility Gap

- **‘Black box’ critique of economywide modeling is pervasive, but can be addressed:**
 - Empirical support for parameterization is key
 - Ex post examination of prior policy reforms is essential
 - Invalidation of model results is also valuable! Where do they fail? Why?
- **Trade policies and supply chains:**
 - Policies implemented at level of thousands of tariff lines
 - But have wider impact through entire supply chain, altering flows along 4 dimensions: exporter, importer, industry of origin and industry destination
 - Validation needed both at level of individual tariff line and sectoral/supply chain
- **Big policy changes can have non-linear impacts**



Research Infrastructure

- Research Infrastructure transforms individual to collective efforts and fosters research collaboration (e.g., GTAP network)
- Data are the foundation of good analysis
- Publicly-available models facilitate technical dialogue
- Replicability of results is key
- AI as a tool for accelerating trade policy analysis
- Open access reduces knowledge gaps (especially in low-income countries)



Next steps

- **Timetable:**

- June-August: solicit additional community input
- September 30: Final sections submitted
- October 15: Complete draft circulated for comment/review
- November 30: White paper completed

- **Publication:**

- Selection of peer-reviewed journal in November
- GTAP working papers to support many of chapters; deep dives into specific topics. Peer review and publication of these papers may follow



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Thank you lead authors!

