

Global Supply Chains: New Resources and the Path Forward



Tom Howells

thomas.howells@bea.gov

301.278.9586

October 26, 2023

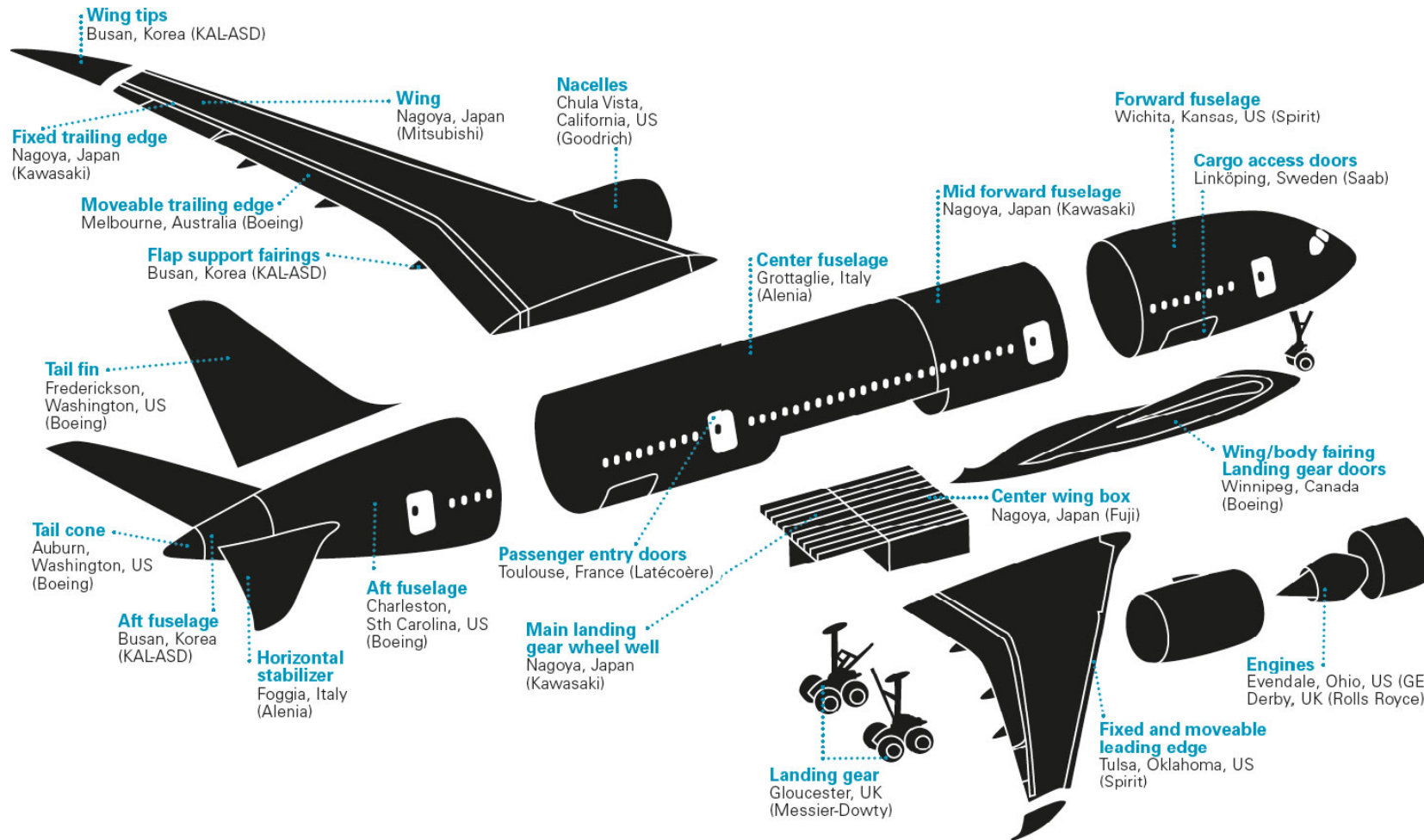
*2023 FCSM Research and Policy
Conference*

Outline



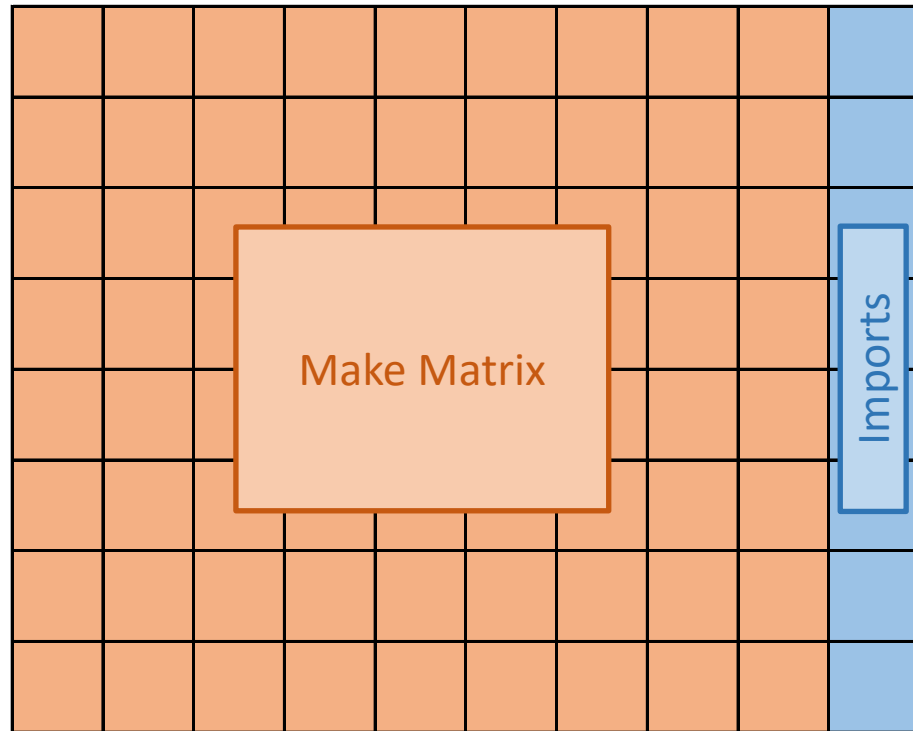
- Background
- Past and Current Work
- Looking Forward

Why do global supply chains matter?

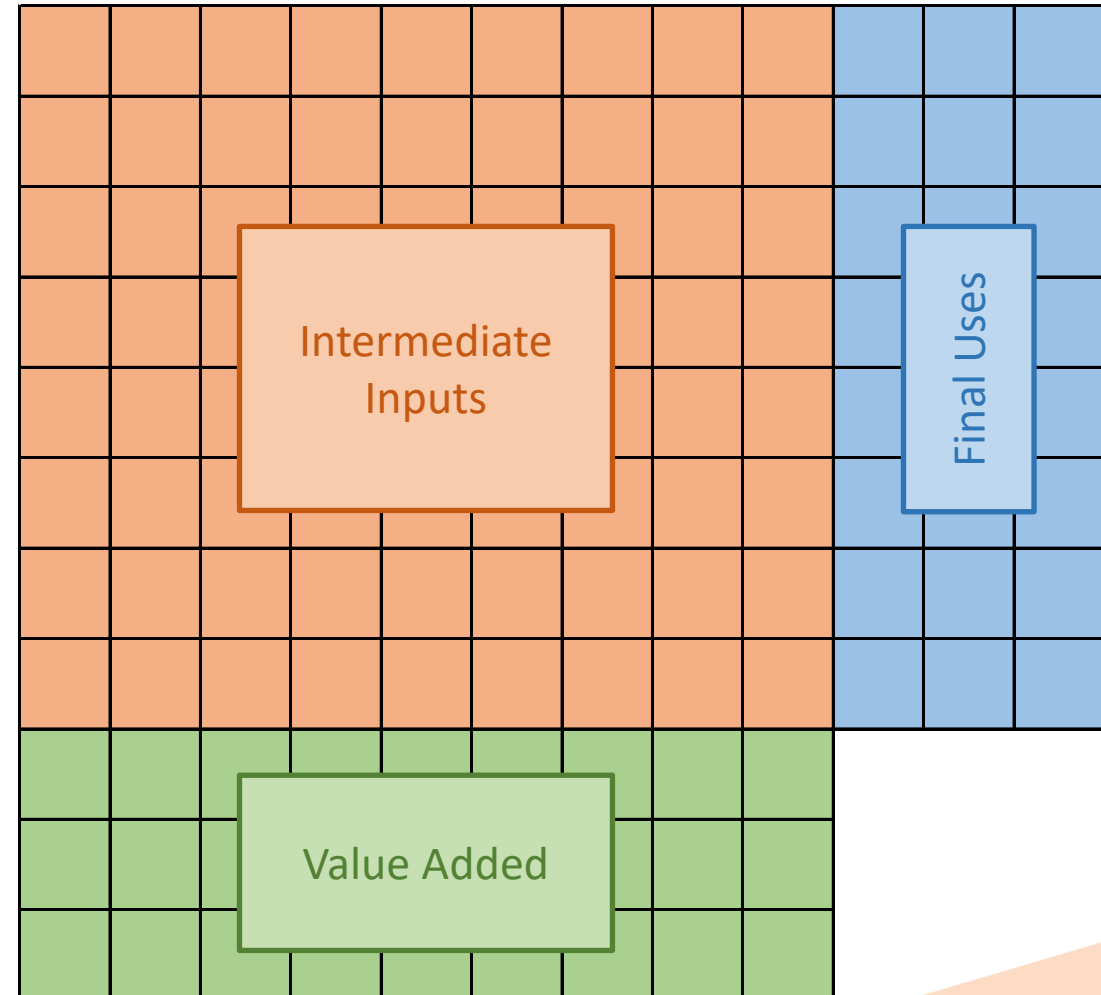


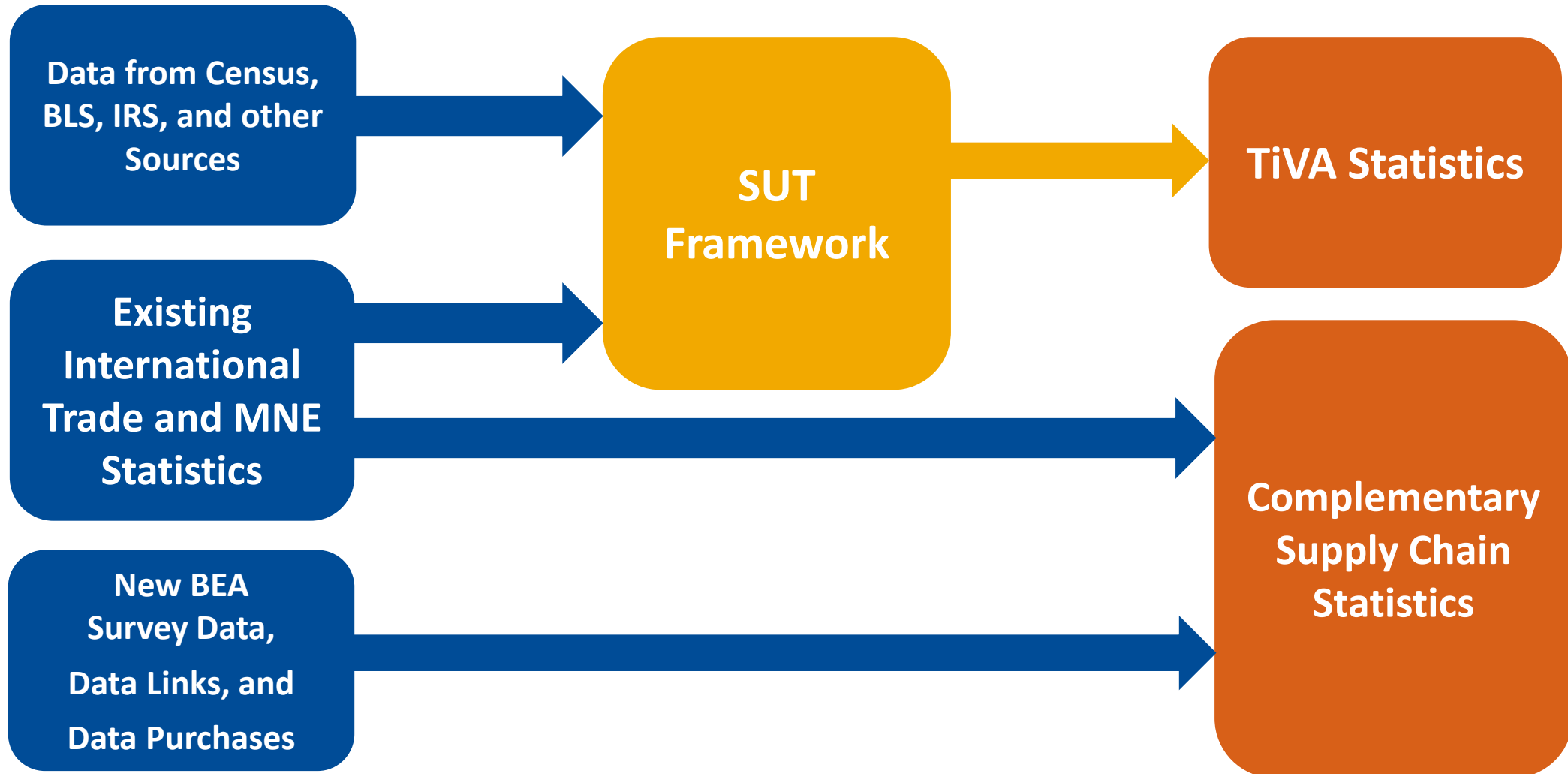
Modeling U.S. Participation in Global Supply Chains

Supply Table



Use Table



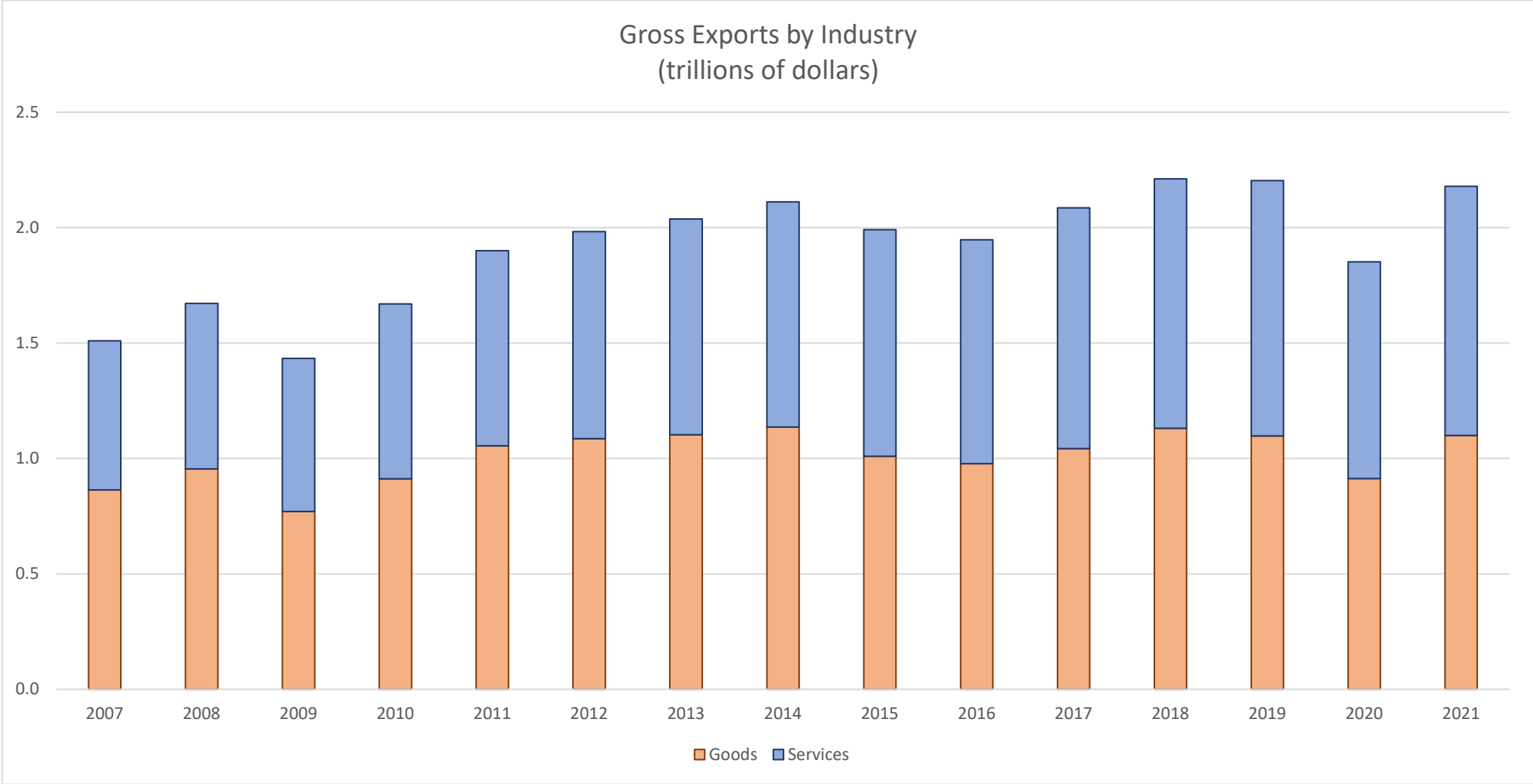


- Support for international Trade in Value Added (TiVA) initiatives
 - OECD-WTO
 - Asia Pacific Economic Cooperation (APEC)
 - North America TiVA Working Group
- Development of national TiVA statistics (in collaboration with the National Science Foundation)
 - Research on extended supply-use tables (investigating the role of multinational corporations)
 - Collaboration with Statistics Canada on a US-Canada regional supply-use table

- In collaboration with the National Science Foundation (NSF), BEA released prototype National TiVA statistics in December 2021
- Statistics include:
 - Gross Exports by Exporting Industry and Destination Region
 - Value Added Exports by Producing Industry and Destination Region
 - Domestic Value Added and Imported Content
- Industry Detail: 81 Industries
- Regional Breakout: Canada, China, Europe, Mexico, and Rest-of-World
- Period: 2007-2020

- Through ongoing collaboration with the National Science Foundation (NSF), BEA released updated prototype National TiVA statistics in March 2023
- Statistics expanded:
 - From 81 to 138 industries
 - From five to seven countries/regions:
 - Japan and “Rest of Asia and Pacific (excluding China and Japan)” added to five previously published regions (Canada, China, Europe, Mexico, and Rest of the World)
- Period: 2007-2021

TiVA Highlights



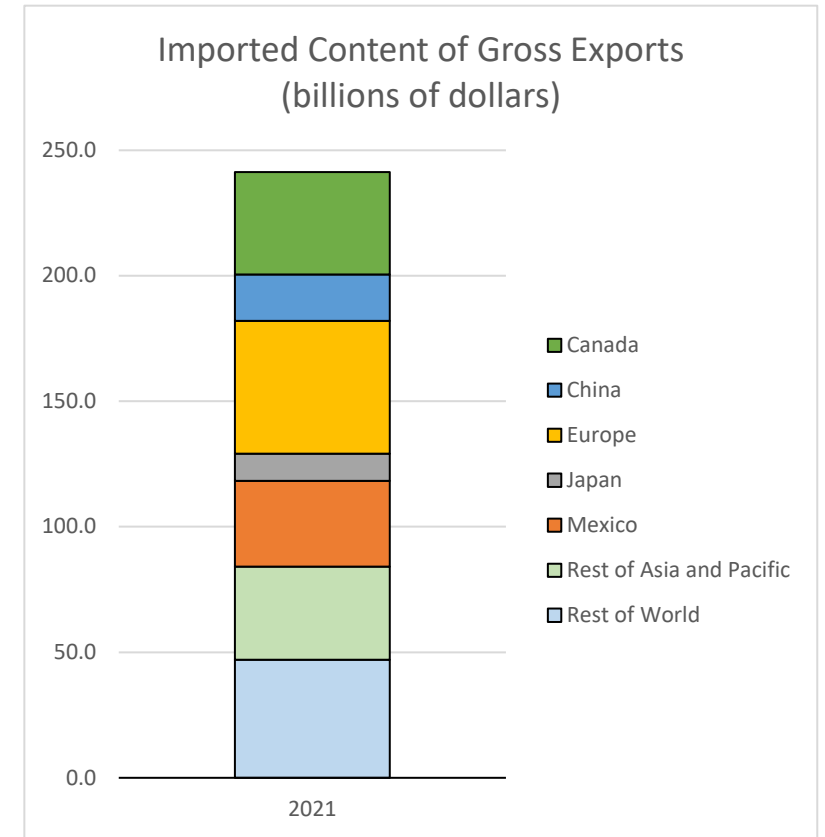
TiVA Highlights



TiVA Highlights



} \$241 billion

- Active TiVA Projects
 - Core TiVA Project
 - ESUT Multinational Extension
 - US-Canada Regional SUT
- Next steps for global supply chain research:
 - New unit focused on supply chain statistics
 - Additional positions and resources

- Expanded industry detail
 - Expand annual 138-industry tables to include full suite of input-output products
 - Produce annual 400-industry input-output products (including TiVA)
 - New 400-industry tables set stage for possibility of GDP by industry statistics at this level of detail
- Expanded country detail
 - Expand TiVA statistics beyond the seven regions currently covered (Canada, China, Europe, Japan, Mexico, Rest of Asia and Pacific, Rest of World)
 - Looking for feedback on where to expand...

- Accelerate production of quarterly Gross Output by Industry statistics to be released concurrently with the second estimate of GDP
 - Release at 60 days after the end of the reference period (versus current 90 days)
 - A prerequisite for a similar acceleration of GDP by Industry statistics
- Begin publication of quarterly supply-use tables
 - Unpublished tables used in production of GDP by industry statistics
 - Additional resources needed for methodology and system improvements and regular pre-release review
 - Foundation for quarterly TiVA statistics

- Integrate the supply-use framework with the industry level production account (ILPA)
 - Decomposition of value added into capital and labor services
 - Decomposition of capital services by type of asset
- Constant-dollar supply-use tables
 - Provides a foundation for real TiVA statistics
- Hybrid TiVA model
 - Expand regional SUT beyond US and Canada
 - Incorporate data from OECD-WTO TiVA database
- Begin producing separate prices for imported intermediate inputs and domestically produced intermediate inputs

- Active TiVA Projects
 - Core TiVA Project
 - ESUT Multinational Extension
 - US-Canada Regional SUT
- Next steps:
 - Increased Granularity
 - Increased Timeliness
 - Special Projects

Thank you!



Tom Howells
301.278.9586
thomas.howells@bea.gov