

# Global Supply Chains: New Resources and the Path Forward



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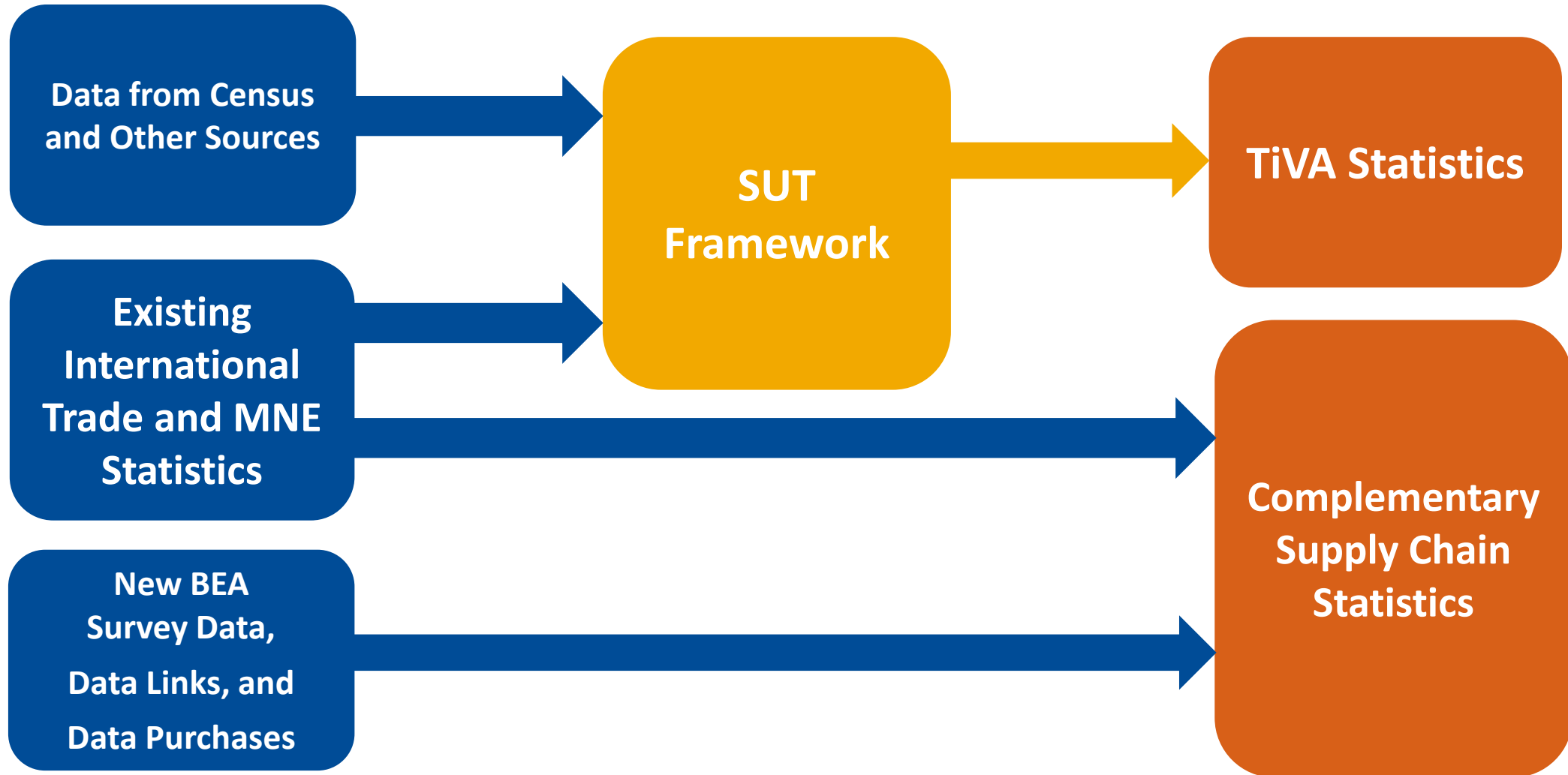
*BEA Advisory Committee Meeting*

# Outline

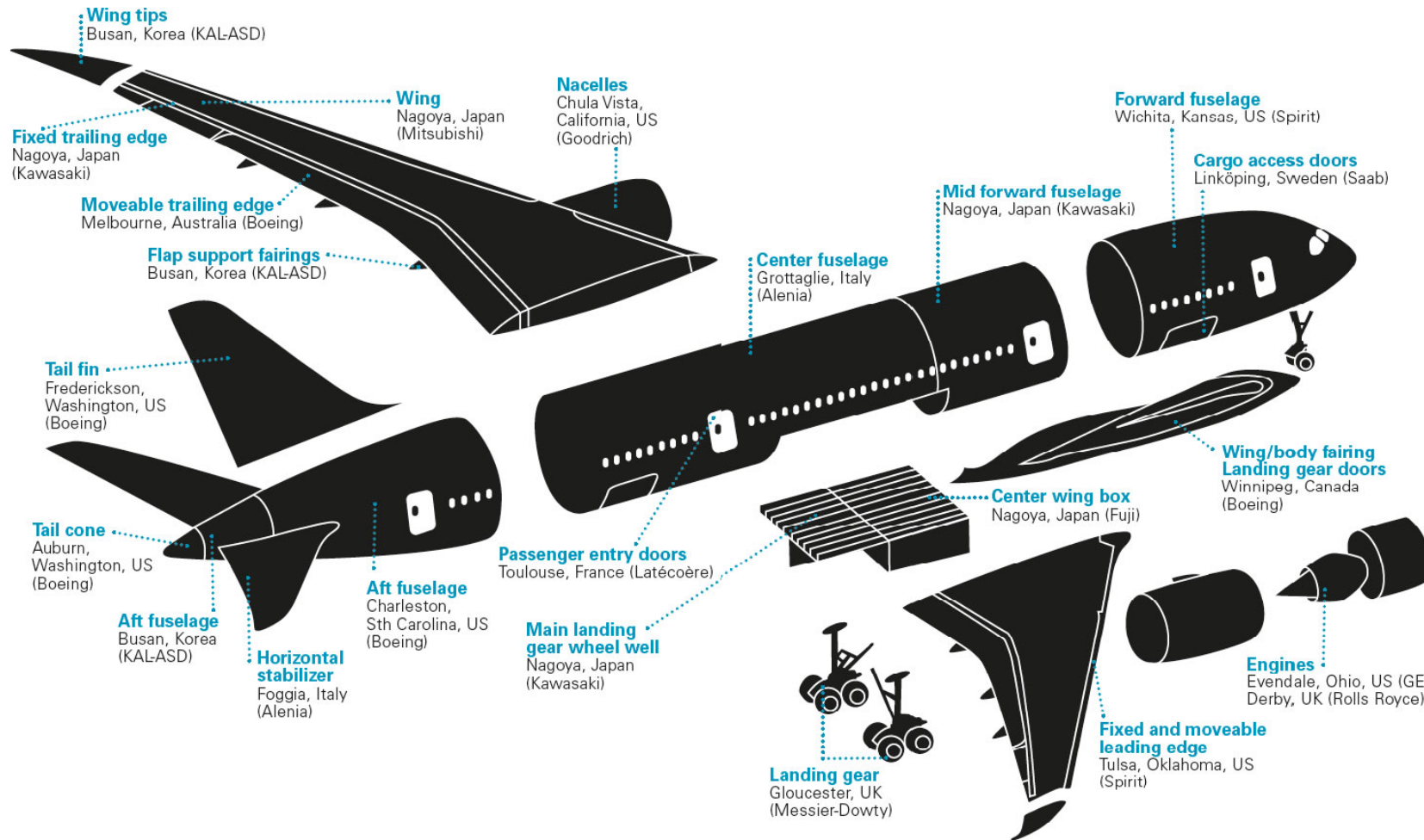
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- Background
- Past and Current Work
- Looking Forward

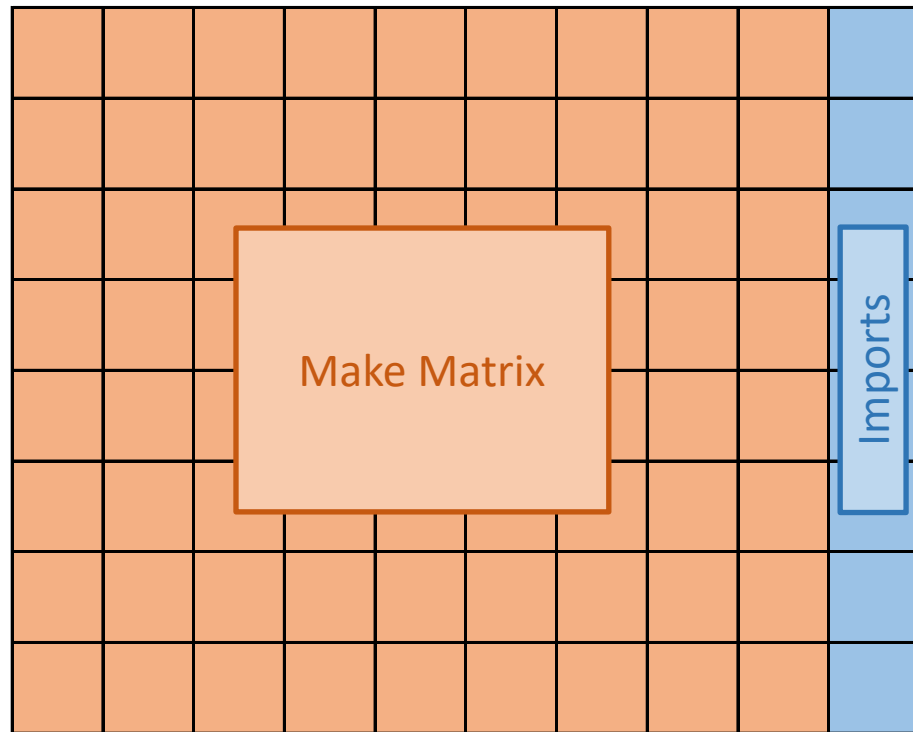


# Why do global supply chains matter?

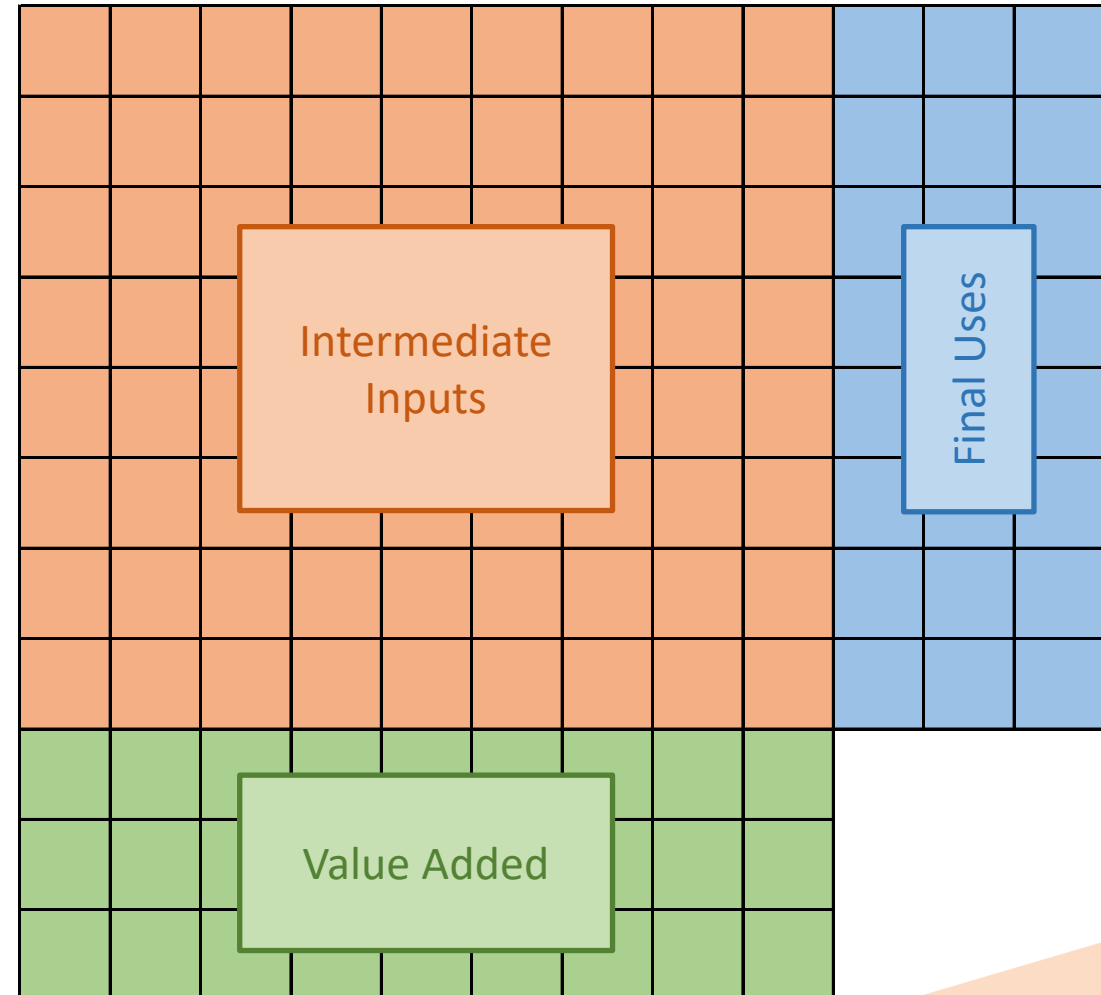


# Modeling U.S. Participation in Global Supply Chains

## Supply Table



## Use Table



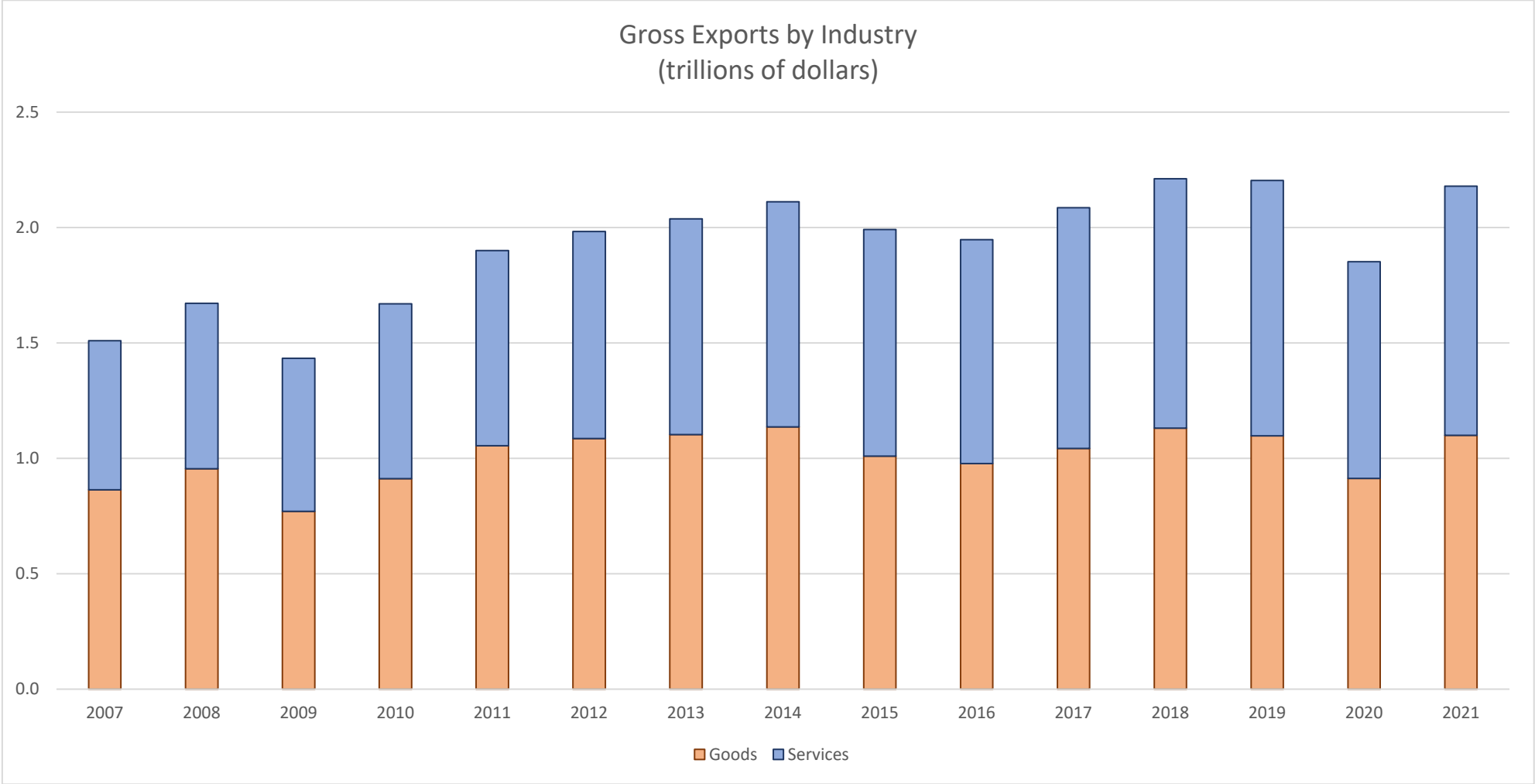
- Support for international Trade in Value Added (TiVA) initiatives
  - OECD-WTO
  - Asia Pacific Economic Cooperation (APEC)
  - North America TiVA Working Group
- Development of national TiVA statistics (in collaboration with the National Science Foundation)
  - Research on extended supply-use tables (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



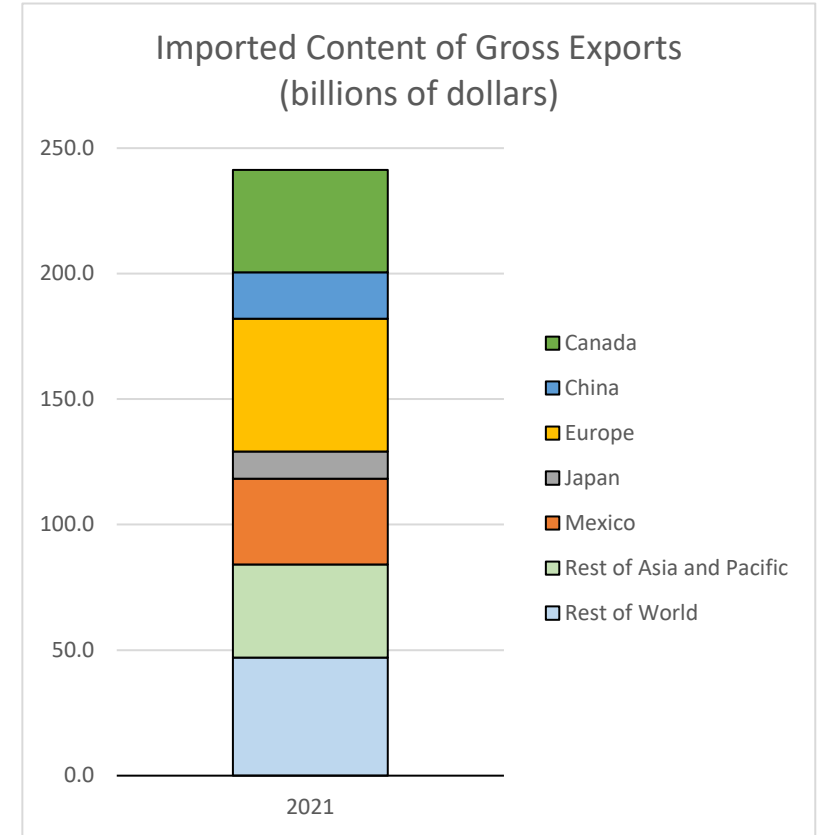
# TiVA Highlights



# TiVA Highlights



} \$241 billion

- **TiVA Project:**
  - Core TiVA Project: NSF funding for FY21-FY23
  - ESUT Multinational Extension: Unfunded
  - US-Canada Regional SUT: Unfunded
- **New FY23 funding for global supply chain research:**
  - New unit focused on supply chain statistics
  - Additional positions and resources

- 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

- Expanded industry detail
  - Expand annual 140-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...

- 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

- How would you prioritize the different paths forward on global supply chains (GSCs) described in this presentation?
- Are there other types of metrics BEA should consider developing in order to facilitate the study of GSCs?
- Which is more important for BEA to develop in support of GSC analysis: less detailed but more timely quarterly estimates or more detailed but less timely annual estimates?