Global Supply Chains:
New Resources and the Path Forward

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Outline

• Background
• Past and Current Work
• Looking Forward
BEA Global Supply Chain Strategy

- Data from Census and Other Sources
- Existing International Trade and MNE Statistics
- New BEA Survey Data, Data Links, and Data Purchases

SUT Framework

- TiVA Statistics
- Complementary Supply Chain Statistics
Why do global supply chains matter?
Modeling U.S. Participation in Global Supply Chains

Supply Table

Use Table

Make Matrix
Imports

Intermediate Inputs

Value Added

Final Uses
Past and Current Initiatives

• 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
Gross Exports and TiVA Exports by Industry
(trillions of dollars)
Looking Forward

• 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
Looking Forward: Increased Timeliness

• 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
Looking Forward: Increased Granularity

• 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...
Looking Forward: Special Projects

• 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
Feedback and discussion:

• 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?