

Single Country Trade in Value-Added



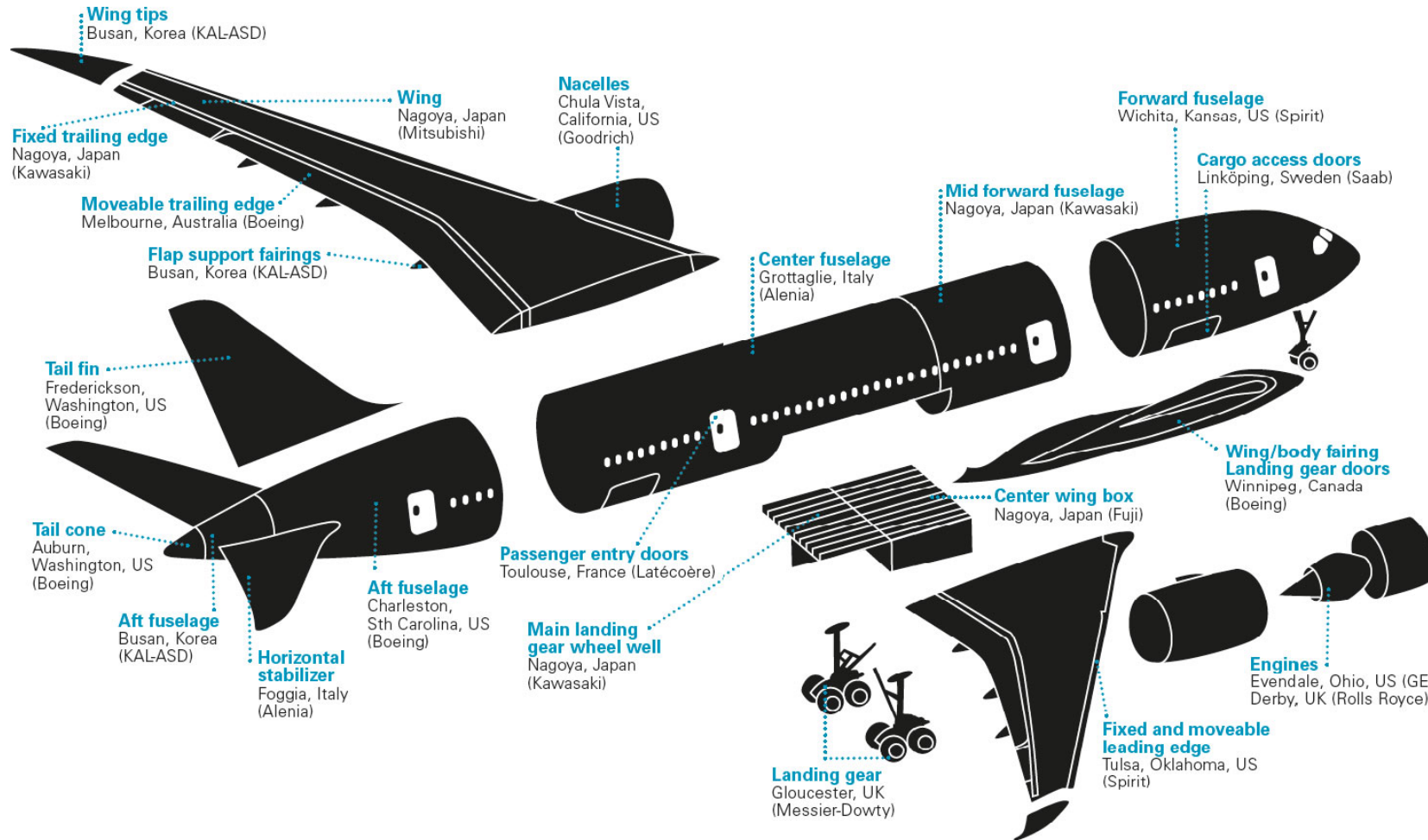
Why is Trade in Value-Added (TiVA) important?



- Countries produce statistics on exports and imports of goods and services via their national accounts
- However, these data do not reflect the origin of inputs to these commodities or how they are used in production
- TiVA illustrates the value added of a country in the production of goods and services that are consumed worldwide. TiVA indicators provide details into trade between countries.

TiVA Overview

Global Value Chains



- Key goal of BEA/NSF collaboration is to explore development of TiVA statistics in a single-country framework:
 - Rely primarily on the U.S. supply-use tables
 - No direct use of a multi-country supply-use framework
- By limiting reliance on a multi-country framework:
 - Greater timeliness
 - Higher level of detail
 - Greater consistency with official statistics

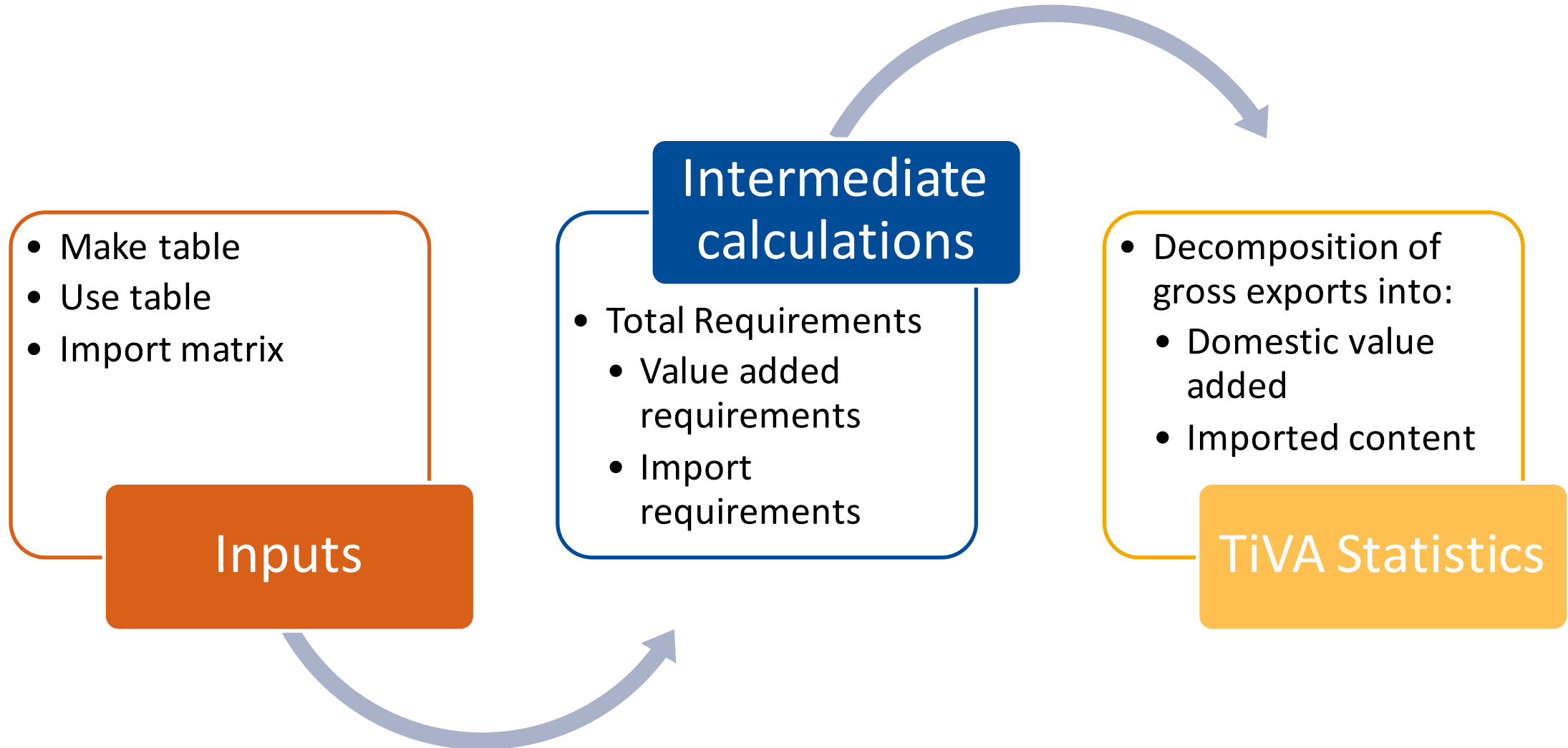
- Advantages of the multi-country framework:
 - Traces supply chain through direct and indirect U.S. trade partners
 - Captures exported U.S. value that “returns home” embedded in U.S. imports
 - Eliminates double counting of intermediate inputs that cross borders multiple times
- Disadvantages of the multi-country framework:
 - High level of international coordination required
 - Timeliness limited by statistical schedules in other countries
 - Level of detail limited by data availability in other countries
 - Changes to U.S. data required to reconcile discrepancies with other countries

- **OECD-WTO**
 - Ongoing support for world TiVA database
 - Engagement with Expert Group on Extended Supply-Use Tables
- **Asia Pacific Economic Cooperation (APEC)**
 - Development of APEC regional TiVA statistics
 - Regional capacity building efforts
- **North America**
 - Collaboration to develop a North America regional TiVA database
 - Bilateral trade asymmetries

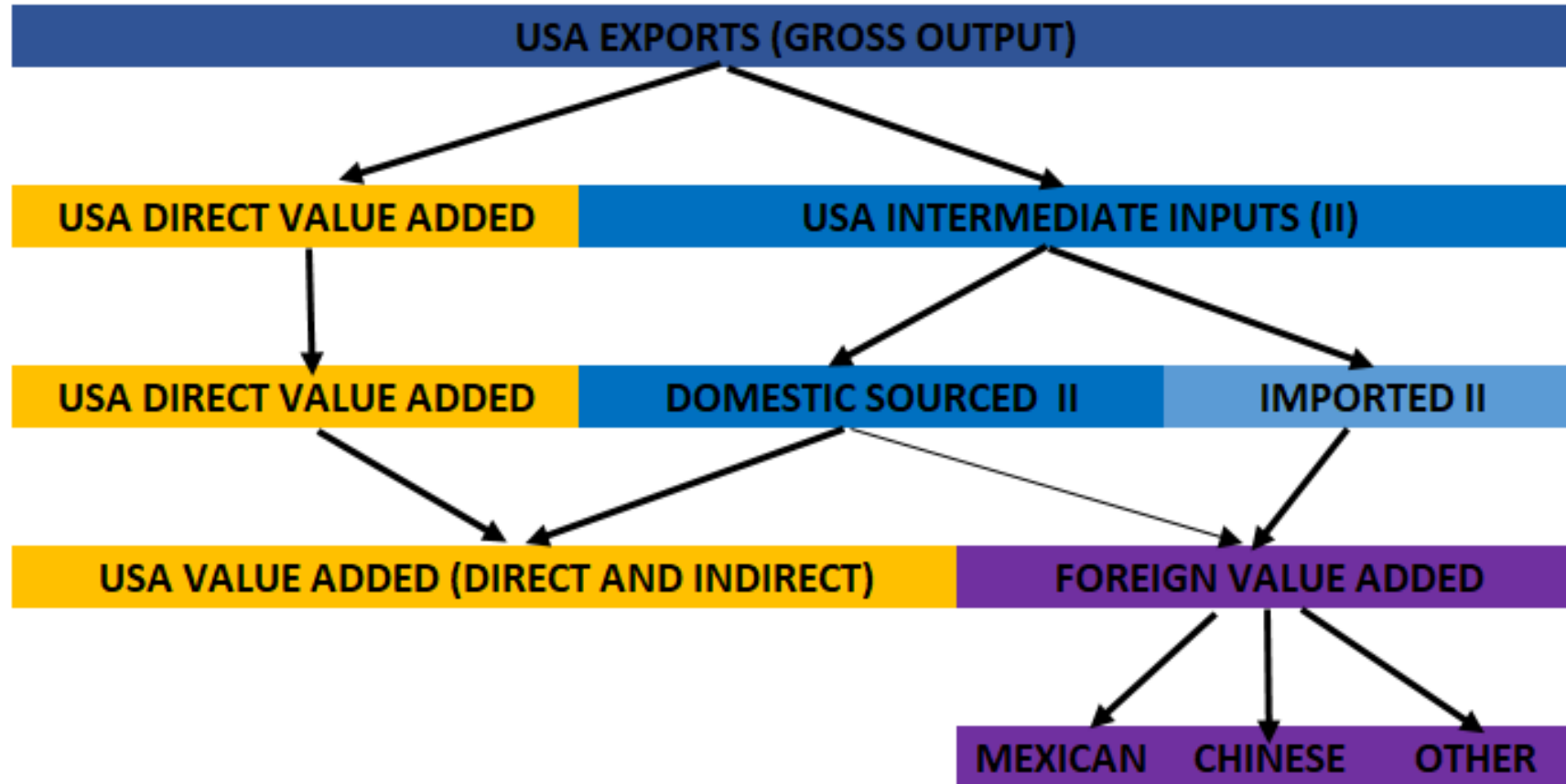
Methodology: data inputs

- Make-Use Tables 81 industry custom level of detail
 - Technology and aerospace manufacturing
 - Medical supplies manufacturing
 - Pharmaceuticals
 - Information services
 - Research and development
- Bilateral trade data from the International Transaction Accounts
 - Canada
 - China
 - Europe
 - Mexico
 - ROW

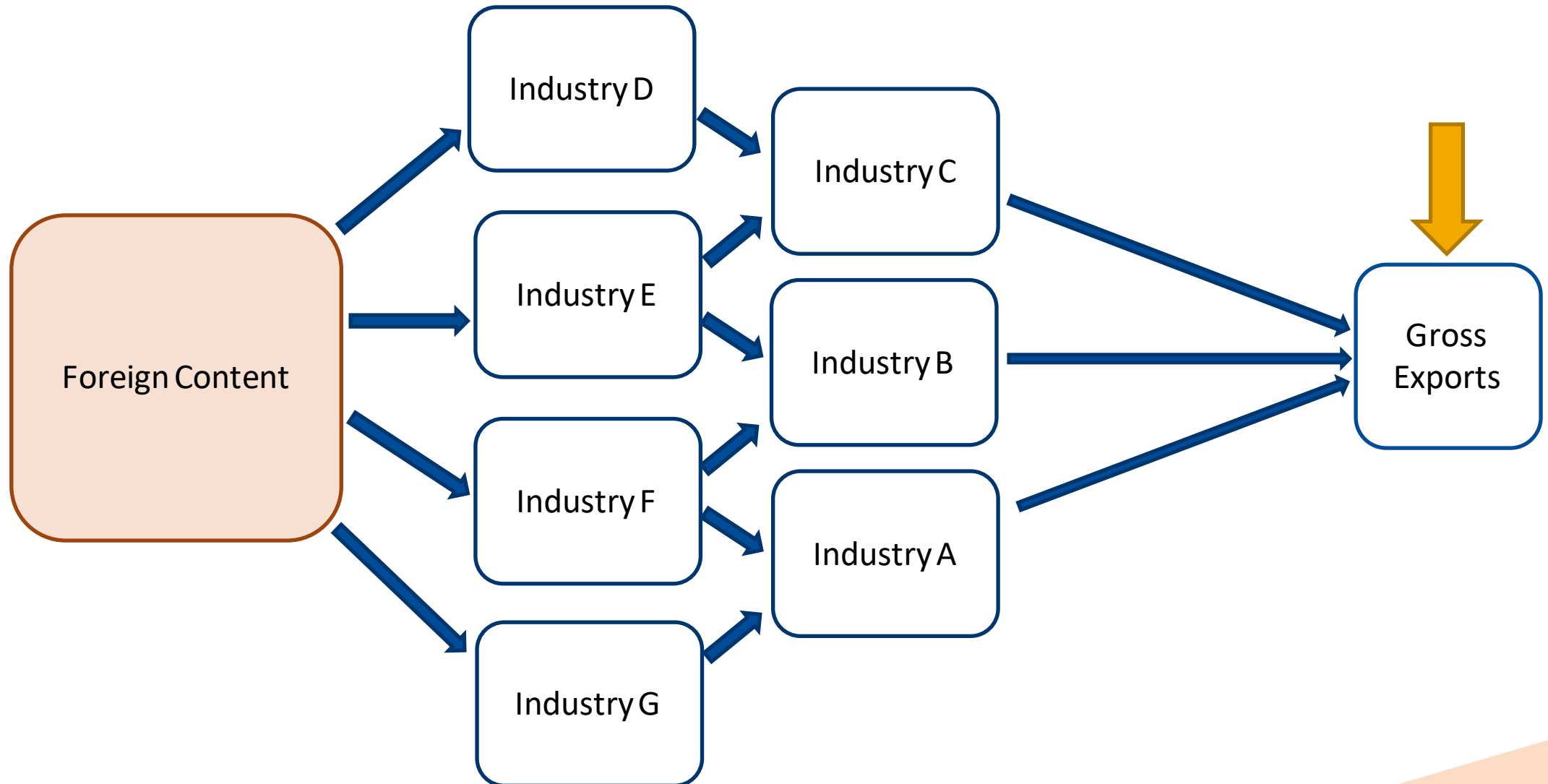
Methodology: calculations



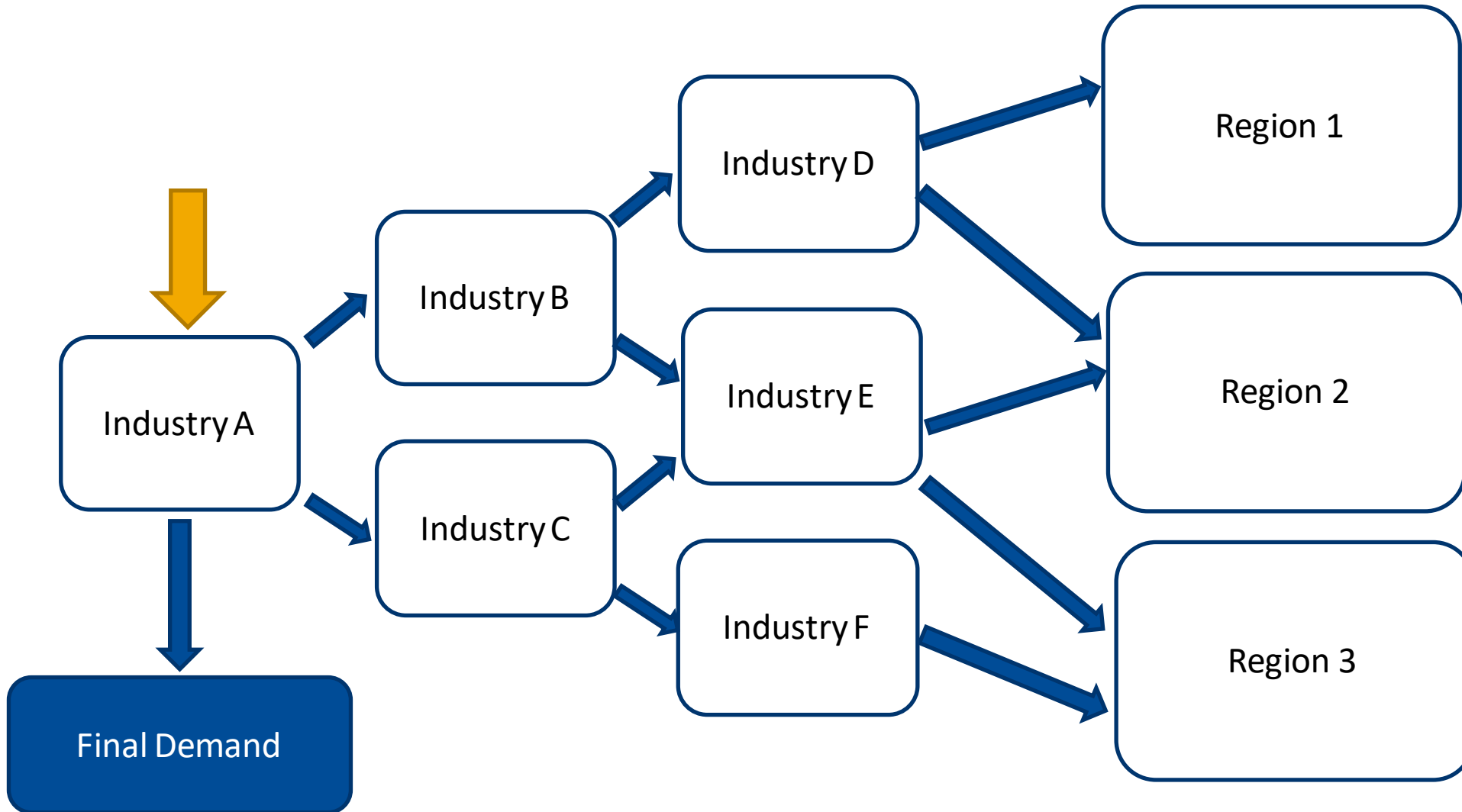
Single Country Decomposition Concept



Views of the Supply Chain: Upstream



Views of the Supply Chain: Downstream



- **TiVA Statistics**

- Gross output and value added by industry
- Gross exports by exporting industry and purchasing region
- Value added exports by producing industry and purchasing region
- Domestic value added in U.S. gross exports
- Imported Content in U.S. gross exports
- Disaggregation by exporting industry, value added source/import user sectors, trading partners

- **Supporting tables**

- Make table
- Use Table
- Bilateral import matrices by trading partner
- Export Vectors

What's Next for TiVA?



- This is a multi-year project with NSF
- Year 2 (FY2022)
 - Publication of annual TiVA Statistics at 140-industry SUT for TiVA
 - Research potential for breakout of Value-Added components at 140-order
 - Research potential for publication of 400-industry SUT for TiVA
- Year 3 (FY2023)
 - Refine TiVA methodology
 - Re-evaluate regional breakout and propose additional countries/regions
 - Propose publication of 400-industry SUT for TiVA
 - Propose incorporation into regular production cycle