About BEA's National Trade in Value Added Dataset and the GVC Analyzer

National trade in value added (TiVA) statistics from the U.S. Bureau of Economic Analysis (BEA) expand on traditional trade data by providing additional information on the sources of value in the production of U.S. exports. Beyond providing information on the total value of an exported good or service, TiVA statistics allow data users to identify the role in U.S. export production of both domestic value creation by industry and imported content by source country or region.

The GVC Analyzer allows you to explore data using custom tables built around these 6 dimensions:

1) Period: Periods for which results will be displayed.

2) Commodity: Goods and services produced or consumed in the U.S. economy.

3) Final Demand Category: Final demand components where selected goods and services are consumed.

4) Destination: Countries/regions where selected goods and services are consumed.

5) Source of Value: Global value chain inputs for selected goods and services, including domestic value added by industry and imports by source country/region.

6) Type of Value: Global value chain input types for selected goods and services, including domestic value added and imports of final and intermediate products.

With the TiVA dataset, a variety of questions can be answered about the composition and destination of U.S. exports. For example, the following results were obtained in the GVC Analyzer:

- ***How much has household consumption of domestic value added in the U.S. changed from 2019 to 2024? (Period, Type of Value, Filer on PCE)***

  $12.9 billion in 2019 to $17.8 billion in 2024 (see line 3 in this GVC Analyzer result)

- ***Which component of final demand relies on imports of intermediate goods the most in 2024?***

  PCE (939,953 million) is the largest consumer of imports of II in 2024 (see line 4)

- ***What is the value of European imports embedded in U.S. oil and gas extraction exports?***

  $4.7 billion in 2024 (see line 4)

For more details about using and interpreting results from the Global Value Chain Analyzer, see the appendices:

- Appendix A: Understanding Sources of Value
- Appendix B: Global Value Chain Analyzer Walkthrough
- Appendix C: Static Table List

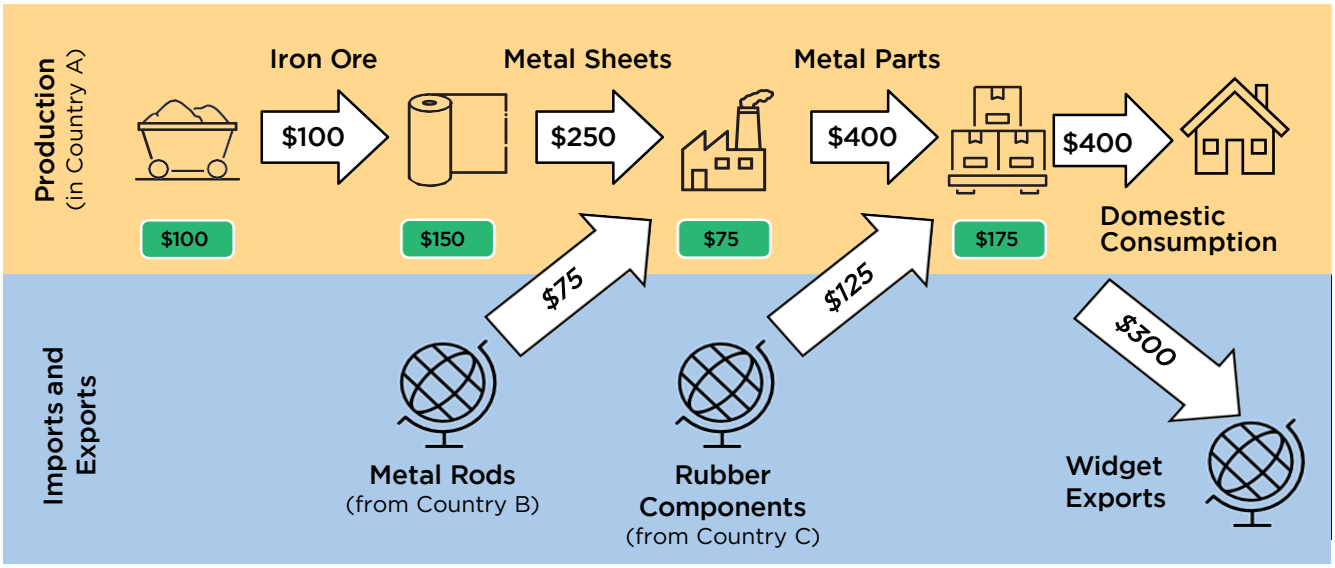
Appendix A: Understanding Sources of Value

The "source of value" dimension summarizes the supply chain that supports production of a given good or service. The example below provides more details on how to interpret the information in this dimension.

Suppose that country A encompasses a simple economy that exports metal widgets. The economy in country A is comprised of four industries: mining, metal milling, parts manufacturing, and widget manufacturing. Country A also imports metal rods from country B and rubber components from country C.

As illustrated in the diagram below, the mining industry extracts raw iron ore that it sells to the metal milling industry for $100. The metal milling industry transforms the raw ore into metal sheets that it sells to the parts manufacturing industry for $250. The parts manufacturing industry imports metal rods from country B for $75 and transforms the domestically produced metal sheets and imported metal rods into metal parts that it sells to the widget manufacturing industry for $400. The widget manufacturing industry imports rubber components from country C for $125 and assembles the domestically produced metal parts and imported rubber components into finished widgets that it exports for $700.

Supply Chain Example



Value added by each industry along the supply chain can be calculated as the value of an industry's output less the cost of its inputs. In the example, the widget manufacturer has value added of $175 (output of $700 minus purchased domestic inputs of $400 and imported inputs of $125). The parts manufacturer has value added of $75 (output of $400 less purchased domestic inputs of $250 and imported inputs of $75). The metal milling industry has value added of $150 (output of $250 less purchased domestic inputs of $100). The mining industry has value added of $100 (output of $100 and no purchased inputs). The sum of value added across all

industries ($500) plus the total value of imported inputs ($200) is equal to the value of the exported widgets ($300) and domestic consumption of widgets ($400).

This information is laid out in table A below to show the complete widget supply chain, including the value added by each domestic industry and the value of imported inputs from each foreign country.

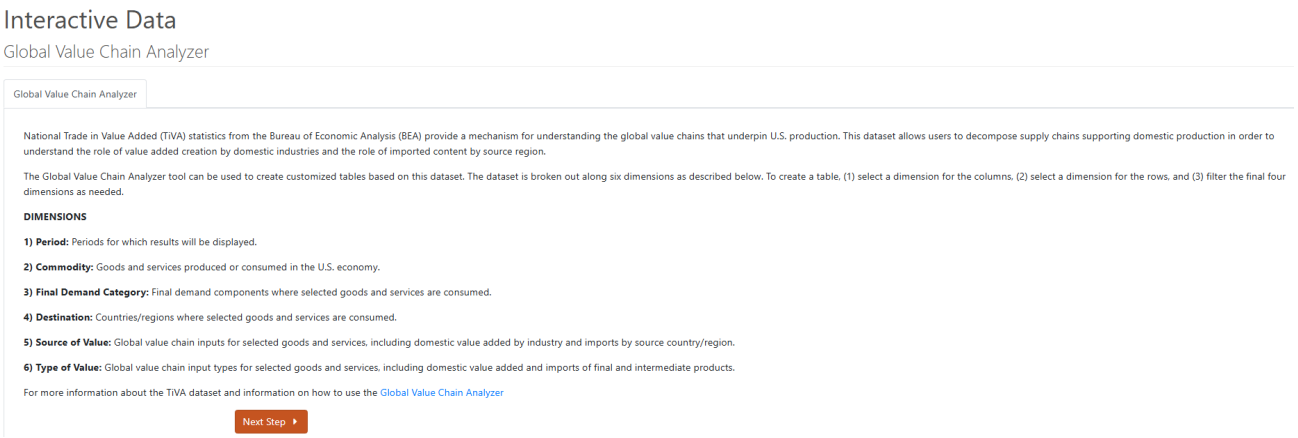
Table A. Source of Value

Total value	700
Imported content by source region	
All source regions	200
Country B	75
Country C	125
Domestic value added by industry	
All industries	500
Mining	100
Milling	100
Parts manufacturing	75
Widget manufacturing	175

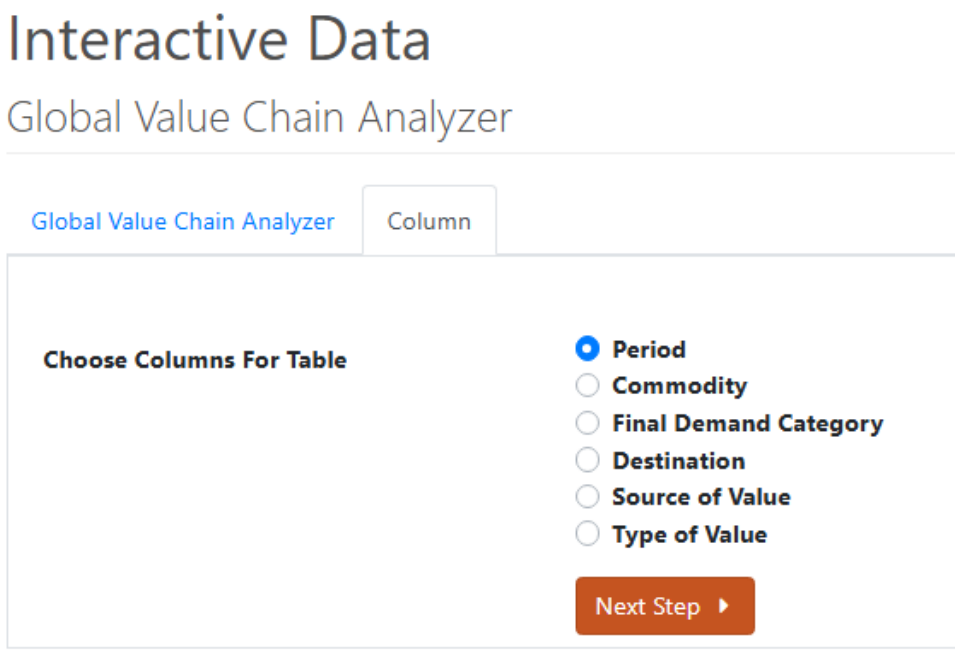
While this table is only an example, a real table for the light truck and utility vehicle-manufacturing industry is available through the GVC Analyzer.

Appendix B. GVC Analyzer Walkthrough

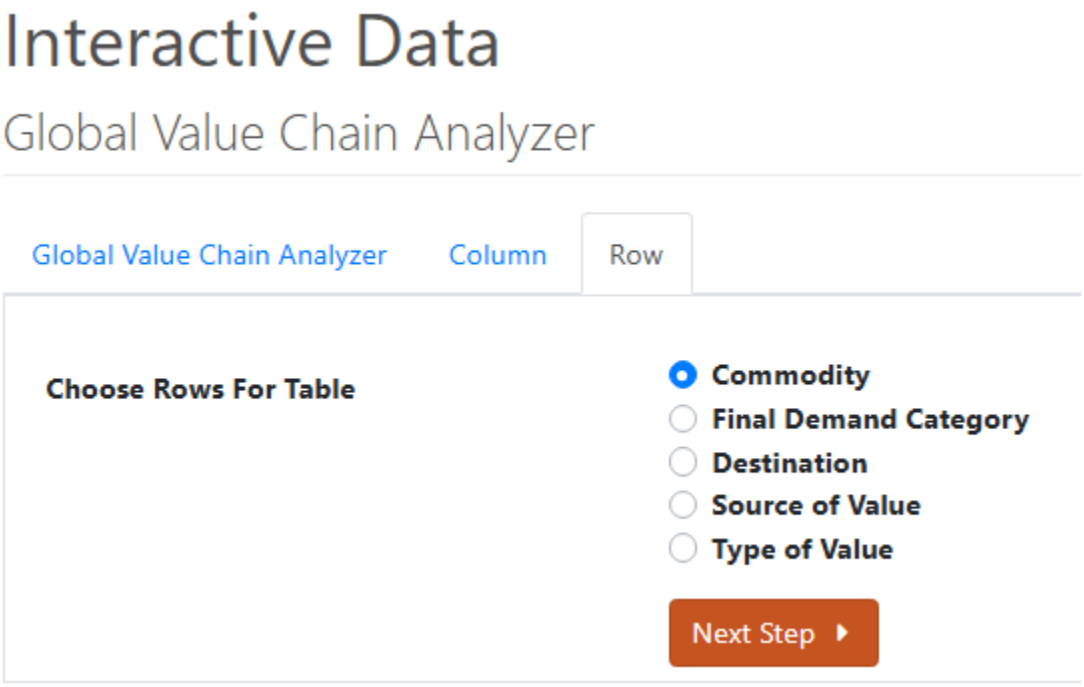
Step 1: Landing page for GVC Analyzer. Review information as needed. Click "Next Step" to proceed.



Step 2: Column selection. Select the desired dimension to be displayed in the columns of the custom table, and click "Next Step."



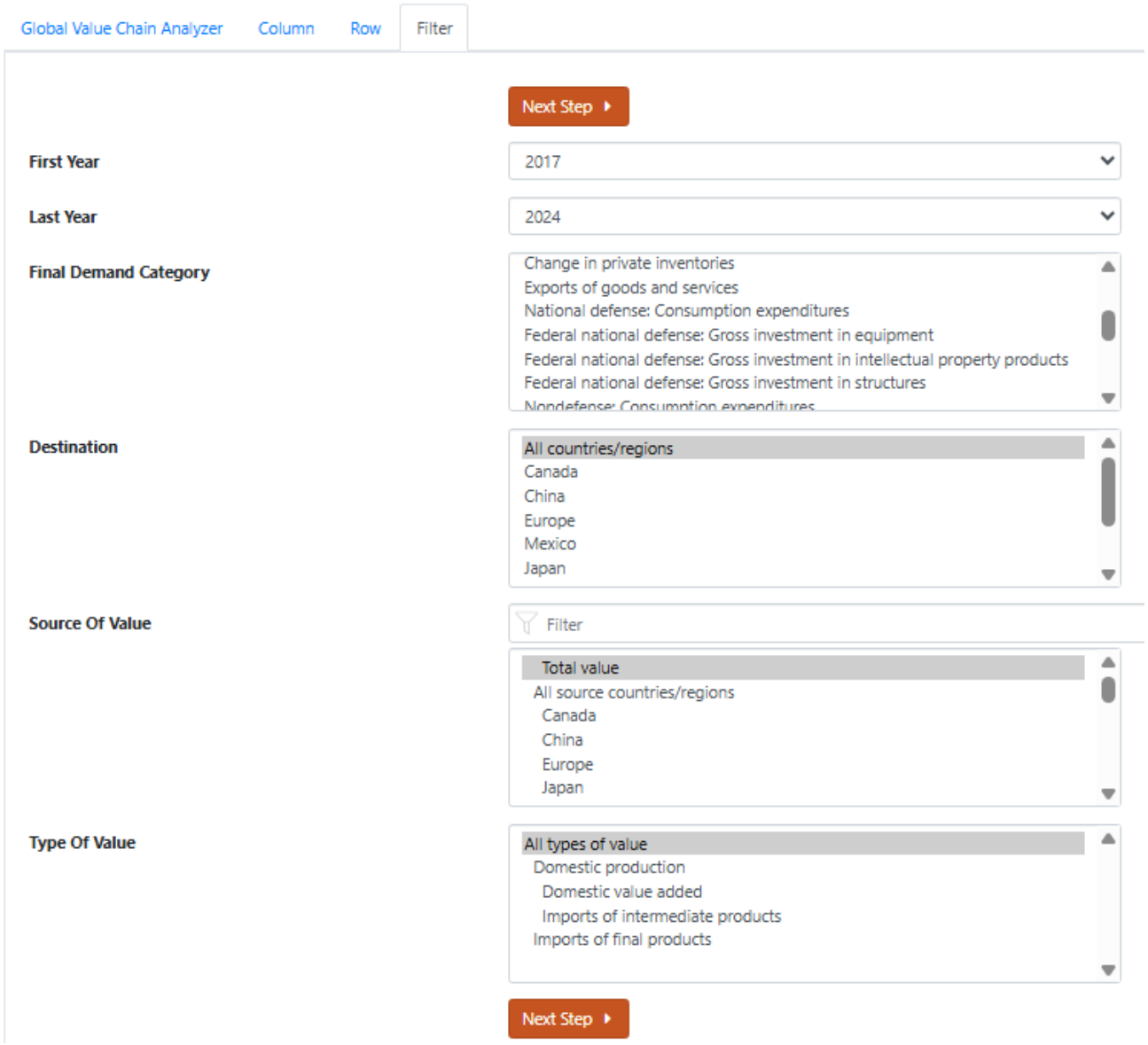
Step 3: Row selection. Select the desired dimension to be displayed in the rows of the custom table, and click “Next Step.”



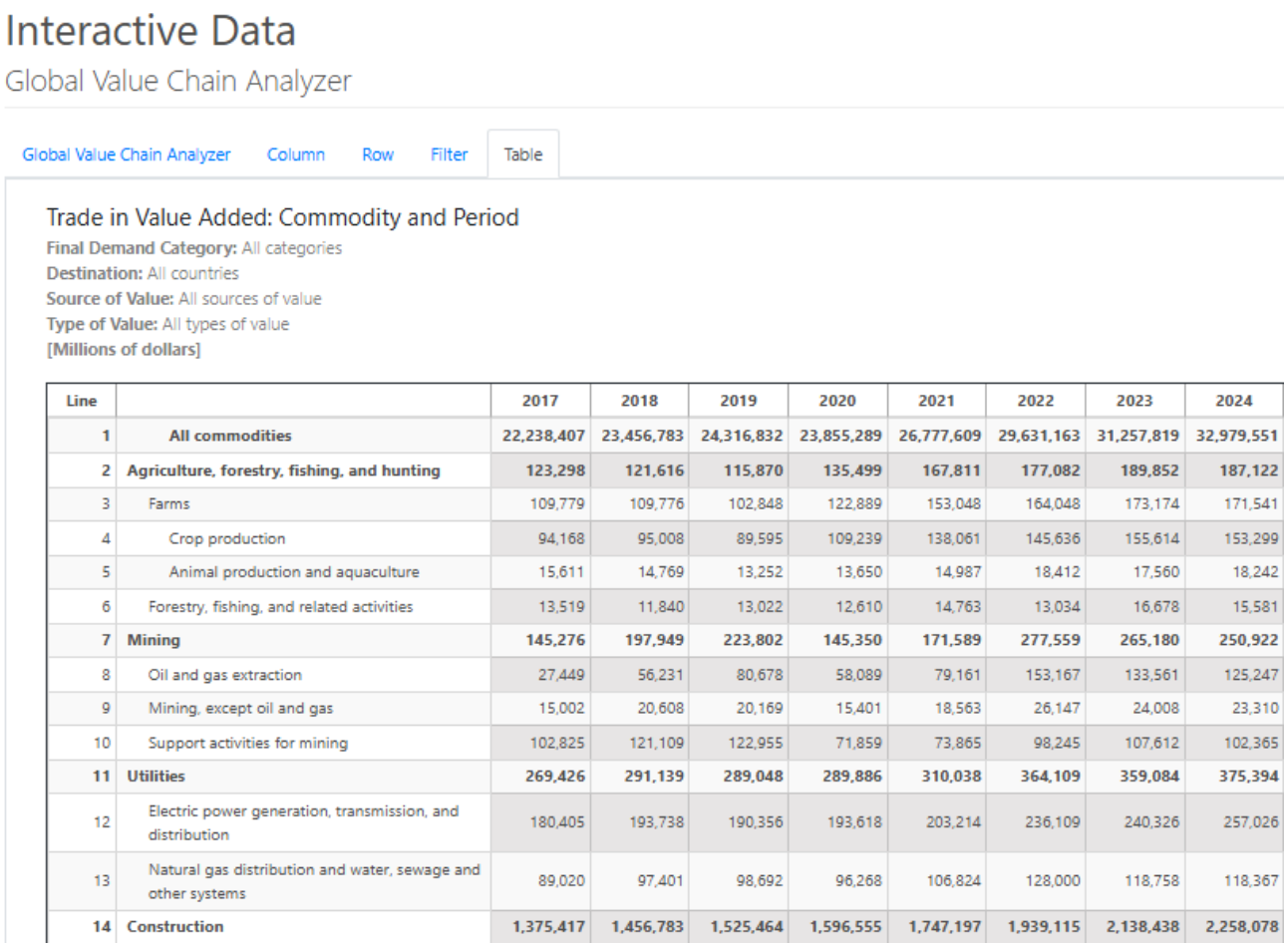
Step 4: Filter options. Set the period or range of periods to be displayed, adjust other filters as needed (the filter list will vary depending on the selections in the previous steps). Click “Next Step” to proceed to the custom table.

Interactive Data

Global Value Chain Analyzer



Step 5: Custom table result. The data shown will be based on the selections chosen. Chosen options will be displayed in the title, subtitles, and footnotes.



Interactive Data

Global Value Chain Analyzer

Global Value Chain Analyzer | Column | Row | Filter | Table

Trade in Value Added: Commodity and Period

Final Demand Category: All categories
Destination: All countries
Source of Value: All sources of value
Type of Value: All types of value
[Millions of dollars]

Line		2017	2018	2019	2020	2021	2022	2023	2024
1	**All commodities**	22,238,407	23,456,783	24,316,832	23,855,289	26,777,609	29,631,163	31,257,819	32,979,551
2	**Agriculture, forestry, fishing, and hunting**	123,298	121,616	115,870	135,499	167,811	177,082	189,852	187,122
3	Farms	109,779	109,776	102,848	122,889	153,048	164,048	173,174	171,541
4	Crop production	94,168	95,008	89,595	109,239	138,061	145,636	155,614	153,299
5	Animal production and aquaculture	15,611	14,769	13,252	13,650	14,987	18,412	17,560	18,242
6	Forestry, fishing, and related activities	13,519	11,840	13,022	12,610	14,763	13,034	16,678	15,581
7	**Mining**	145,276	197,949	223,802	145,350	171,589	277,559	265,180	250,922
8	Oil and gas extraction	27,449	56,231	80,678	58,089	79,161	153,167	133,561	125,247
9	Mining, except oil and gas	15,002	20,608	20,169	15,401	18,563	26,147	24,008	23,310
10	Support activities for mining	102,825	121,109	122,955	71,859	73,865	98,245	107,612	102,365
11	**Utilities**	269,426	291,139	289,048	289,886	310,038	364,109	359,084	375,394
12	Electric power generation, transmission, and distribution	180,405	193,738	190,356	193,618	203,214	236,109	240,326	257,026
13	Natural gas distribution and water, sewage and other systems	89,020	97,401	98,692	96,268	106,824	128,000	118,758	118,367
14	**Construction**	1,375,417	1,456,783	1,525,464	1,596,555	1,747,197	1,939,115	2,138,438	2,258,078

Appendix C. Static Table List

Gross Domestic Product by Final Demand Category

- Table 1.1 Type of Value by Final Demand Category
- Table 1.2.1 Sources of Value for Gross Domestic Product
- Table 1.2.2 Sources of Value for Personal Consumption Expenditures
- Table 1.2.3 Sources of Value for Private Fixed Investment
- Table 1.2.4 Sources of Value for Change in Private Inventories
- Table 1.2.5 Sources of Value for Exports
- Table 1.2.6 Sources of Value for Imports
- Table 1.2.7 Sources of Value for Government

Gross Domestic Product by Industry

- Table 2.1 Destination of Value Added by Major Industry Group
- Table 2.2.1 Destination of Value Added for All Industries
- Table 2.2.2 Destination of Value Added for Goods
- Table 2.2.3 Destination of Value Added for Services
- Table 2.2.4 Destination of Value Added for Government

Supporting Tables

- Make Table, After Redefinitions
- Use Table, After Redefinitions
- Exports by Commodity, Producer Value
- Exports by Commodity, Canada, Producer Value
- Exports by Commodity, China, Producer Value
- Exports by Commodity, Europe, Producer Value
- Exports by Commodity, Japan, Producer Value
- Exports by Commodity, Mexico, Producer Value

- Exports by Commodity, Rest of Asia and Pacific, Producer Value
- Exports by Commodity, Rest of World, Producer Value
- Import Matrix, After Redefinitions
- Import Matrix, Canada, After Redefinitions
- Import Matrix, China, After Redefinitions
- Import Matrix, Europe, After Redefinitions
- Import Matrix, Japan, After Redefinitions
- Import Matrix, Mexico, After Redefinitions
- Import Matrix, Rest of Asia and Pacific, After Redefinitions
- Import Matrix, Rest of World, After Redefinitions