

INVESTIGATING ECONOMIC INDICATORS

WEBINAR SERIES

The Building Blocks of Gross Domestic Product

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SUBMIT QUESTIONS VIA CHAT TO ASK GDP



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Marissa Crawford is an Economist at the Bureau of Economic Analysis. She has a Bachelor in Science degree in Economics from Oklahoma State University and an MBA from Georgetown University. Marissa works in the Coordination and Quality Assurance Branch in BEA's National Economic Accounts directorate where she is part of the team that reviews and prepares the release of gross domestic product, personal income and outlays, and corporate profits.

Webinar Overview

- Introduction
- Review BEA & Its Data Products
- Define Gross Domestic Product (GDP)
- How is Production Measured?
- Evolution of GDP Estimates
- How does Census Data Fit?
- Live Question & Answer Session

**SUBMIT QUESTIONS VIA
CHAT TO ASK GDP**



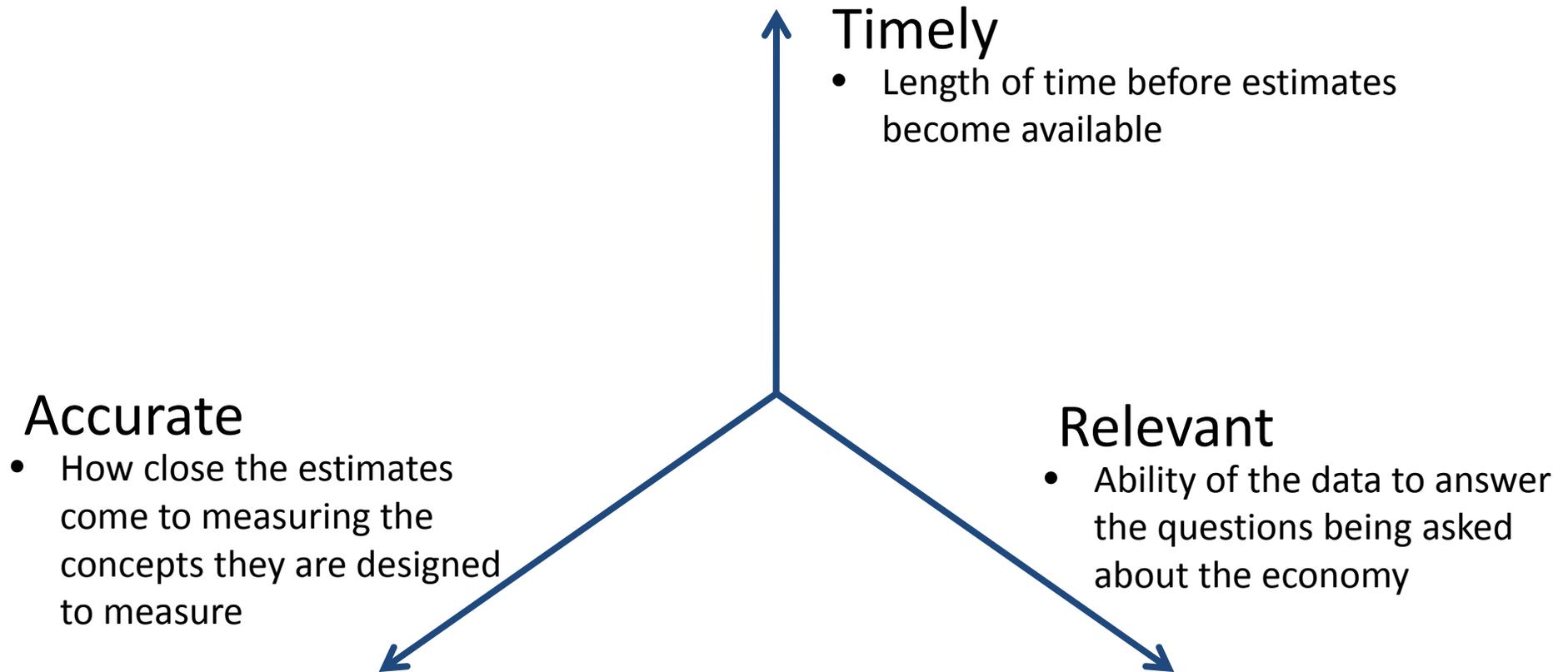
What is the Mission of the Bureau of Economic Analysis?

To promote a better understanding of the U.S. economy by providing the most **timely**, **relevant**, and **accurate** economic data in an objective and cost-effective manner.

For more information & data offerings visit:

BEA.GOV

Balancing Three Principles of Mission



BEA's Data Products

National

Industry

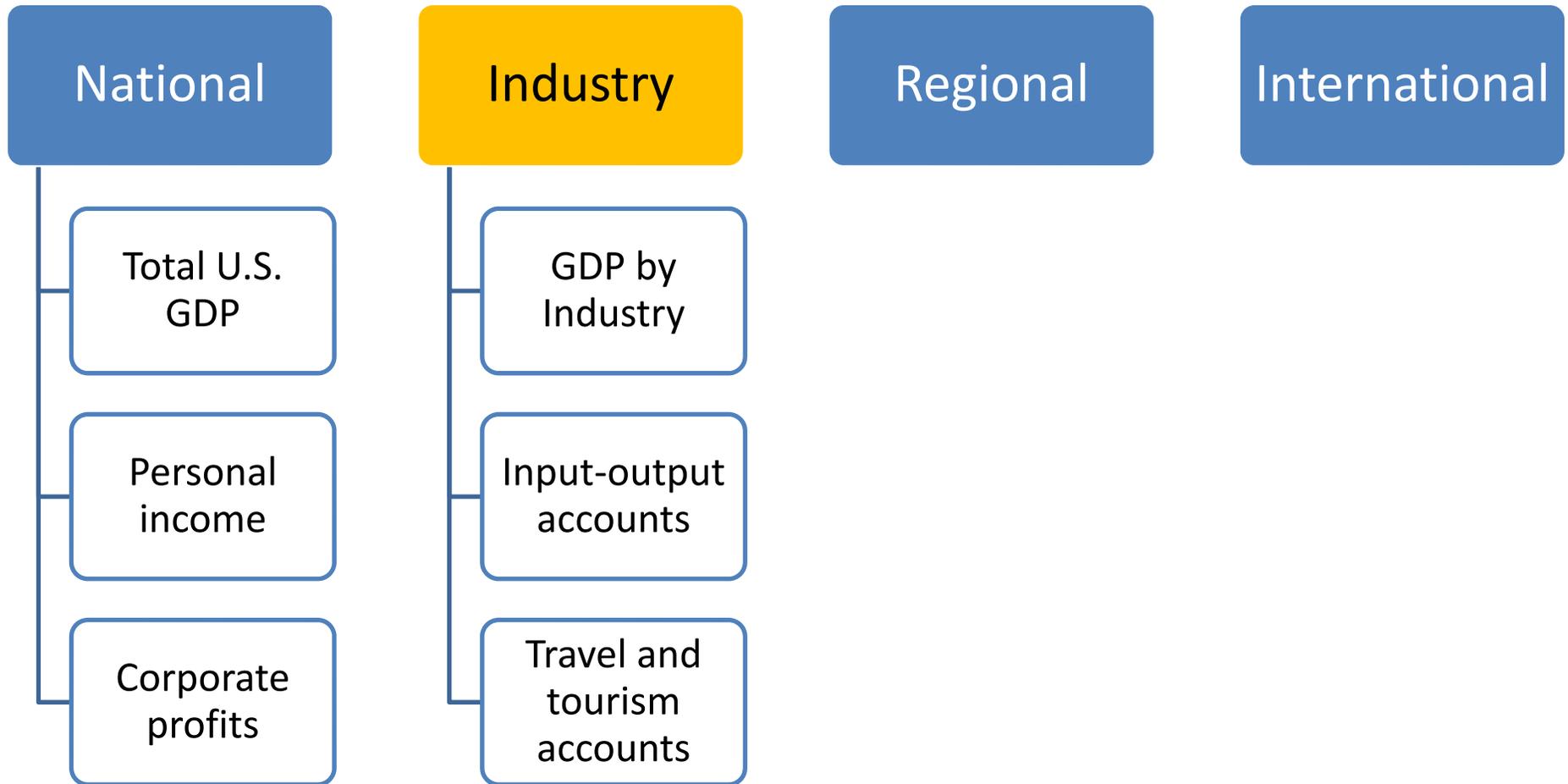
Regional

International

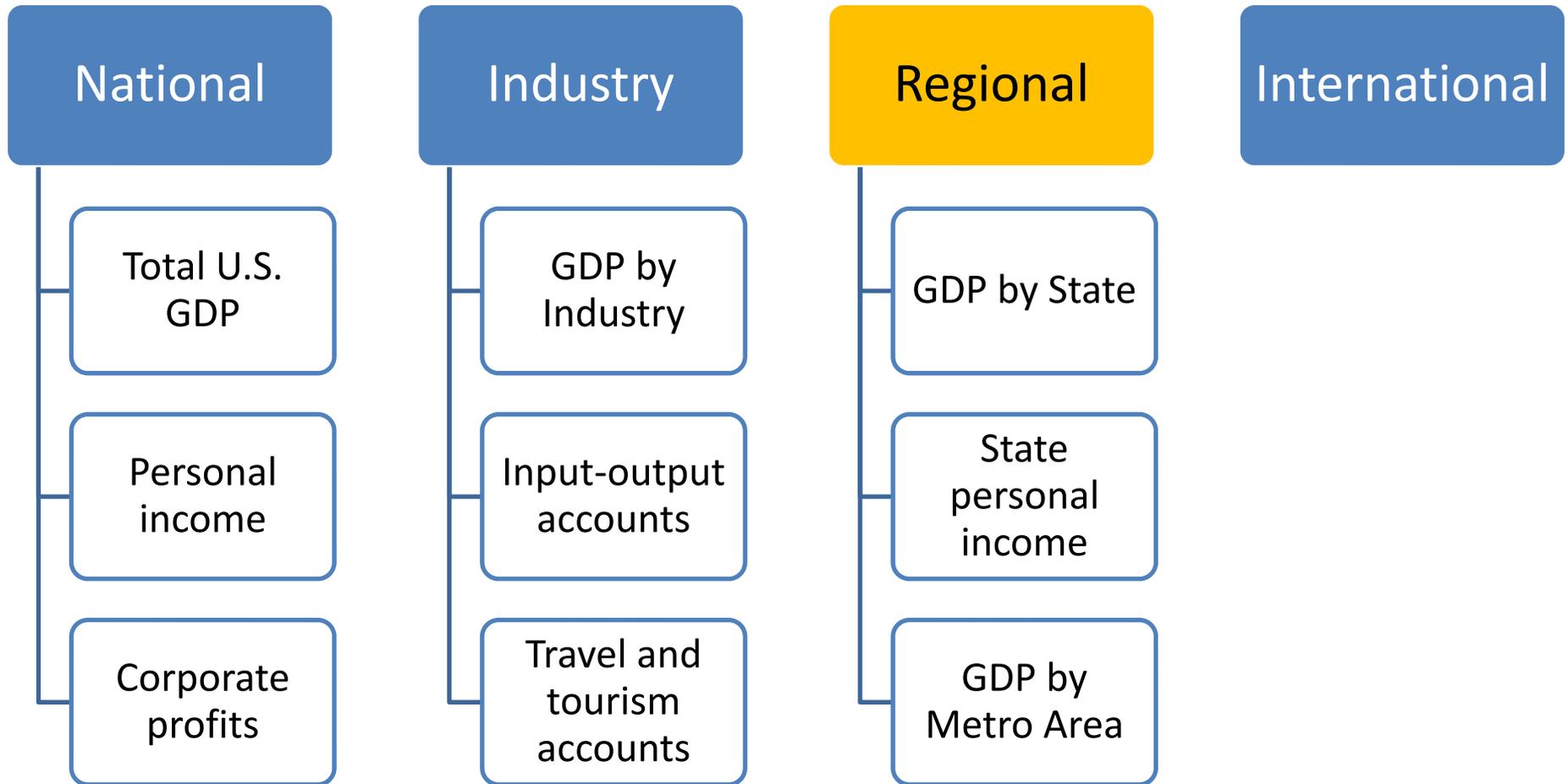
BEA's Data Products



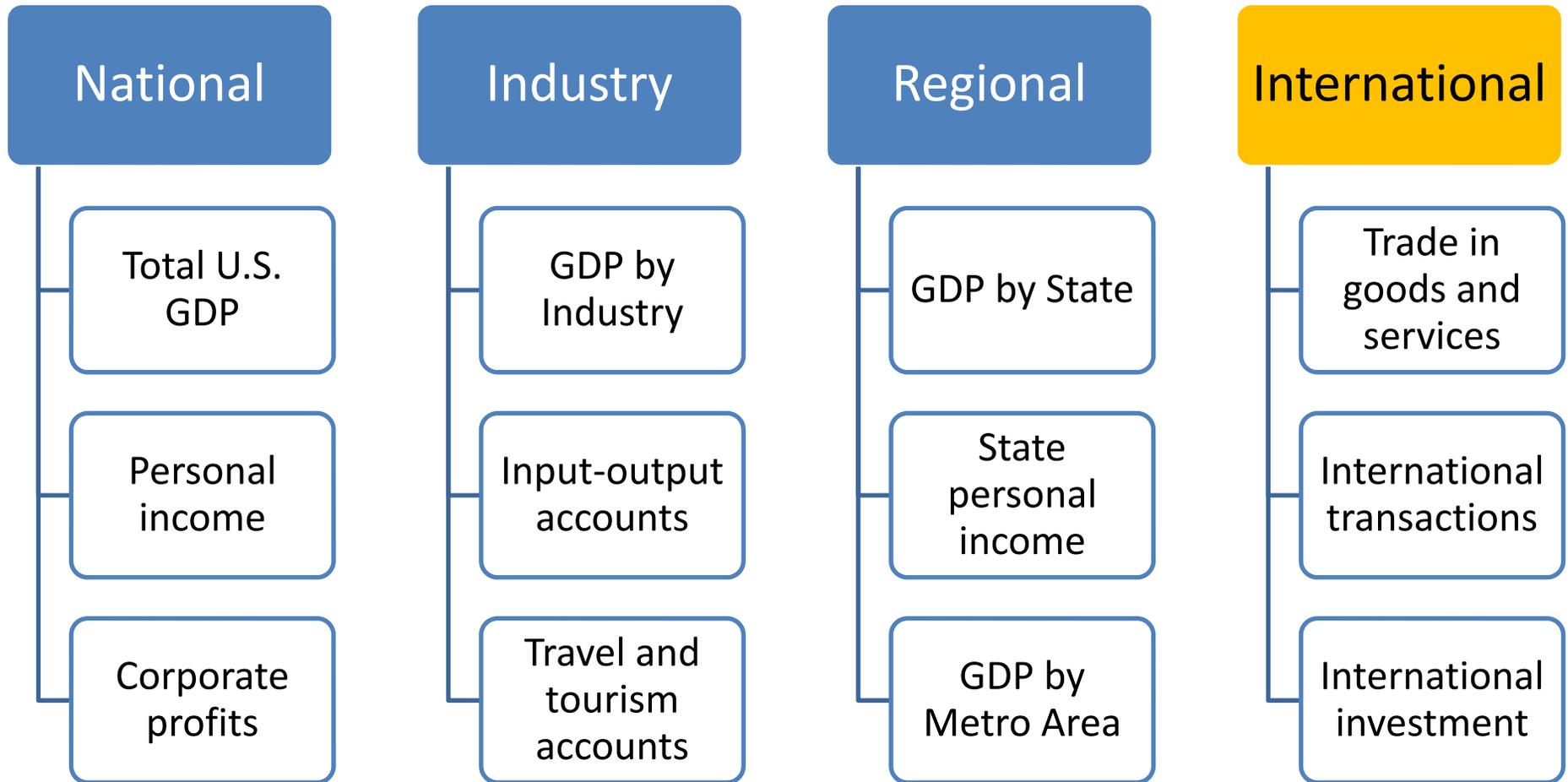
BEA's Data Products



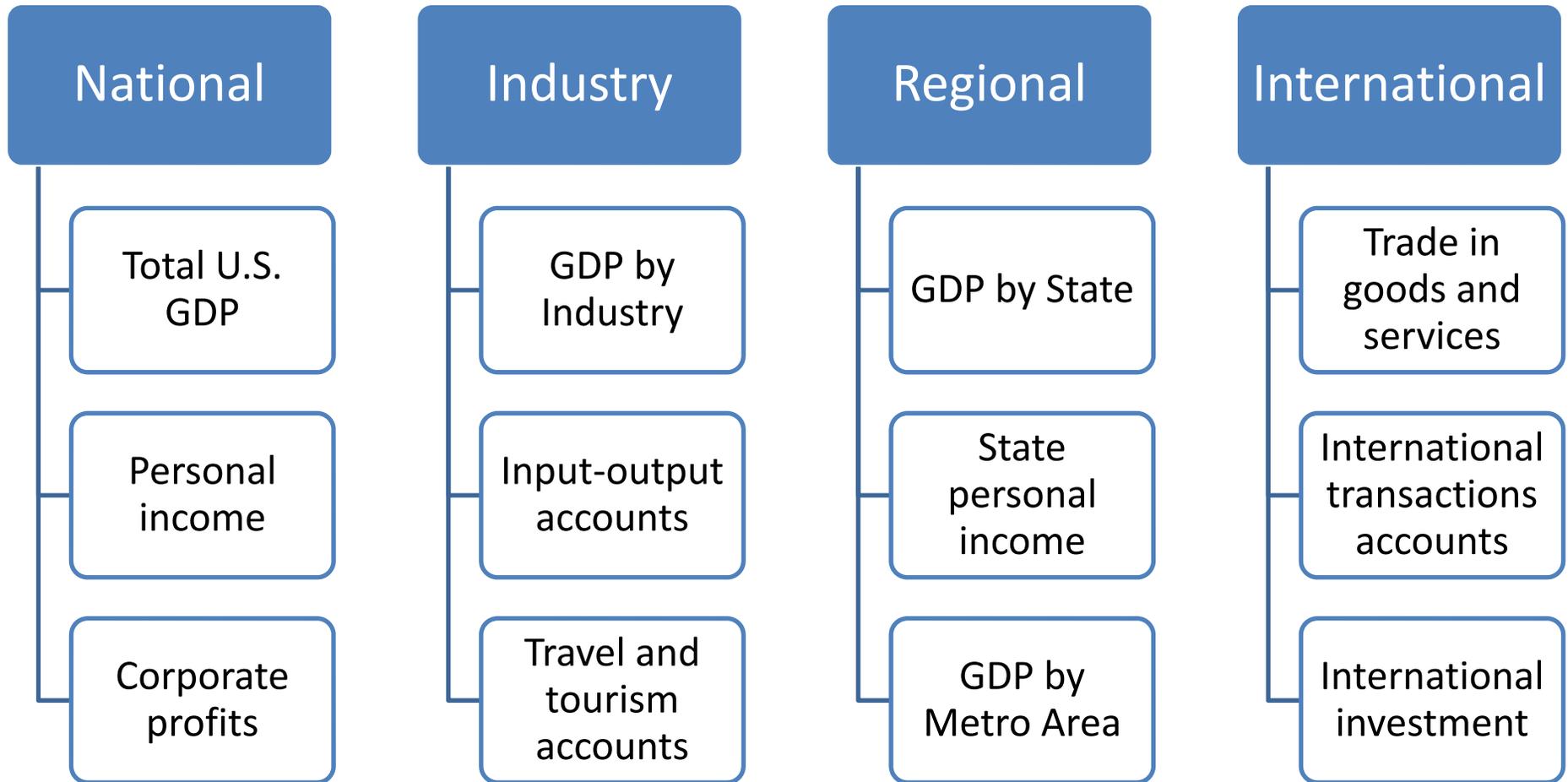
BEA's Data Products



BEA's Data Products



BEA's Data Products



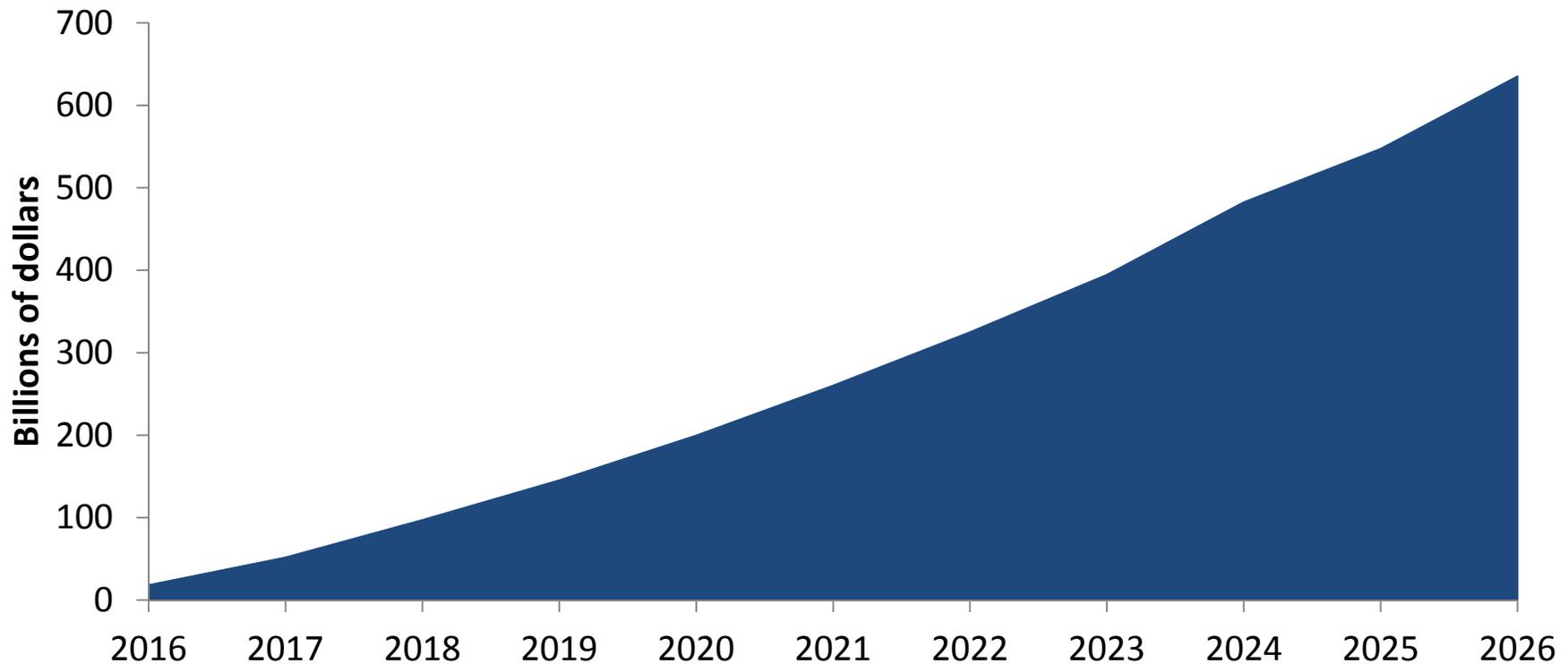
How are BEA data used?

- Businesses
- Wall Street
- Academics
- Policy Makers
 - White House
 - Congress
 - Federal Reserve Board



How are BEA data used?

A one percent lower real GDP growth rate leads to a total increase in the federal budget deficit of \$3,157 billion from 2016-2026.



Source: *Analytical Perspectives*, Office of Management and Budget, Table 2-4.

What is Gross Domestic Product?

- Value of the goods and services produced by the nation's economy less the value of the goods and services used up in production.
- Two measures:
 - Nominal, or current-dollar, GDP
 - Real GDP



GDP is NOT...

GDP is NOT...

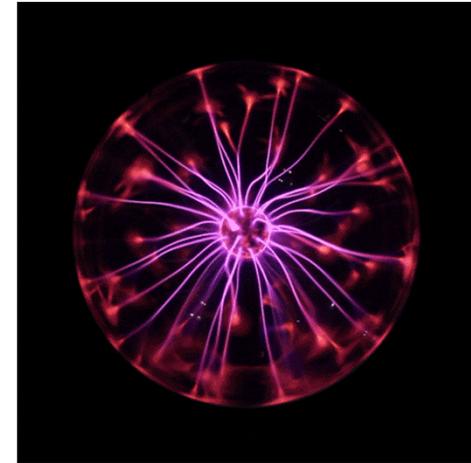


A Welfare Measure

GDP is NOT...



A Welfare Measure



A Static Measure

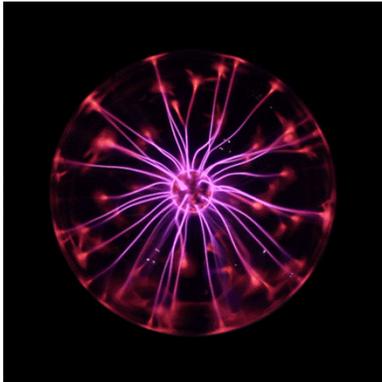
GDP is NOT...



A Welfare Measure



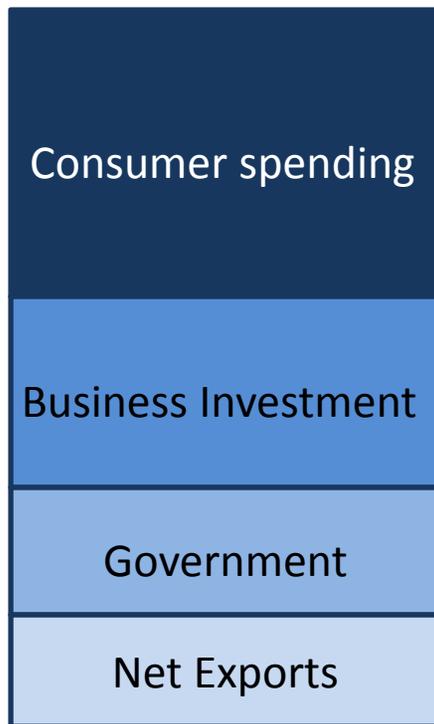
The Only Tool for
Macroeconomic
Measurement



A Static Measure

Three Ways to Measure Production

GDP: The sum of
final expenditures

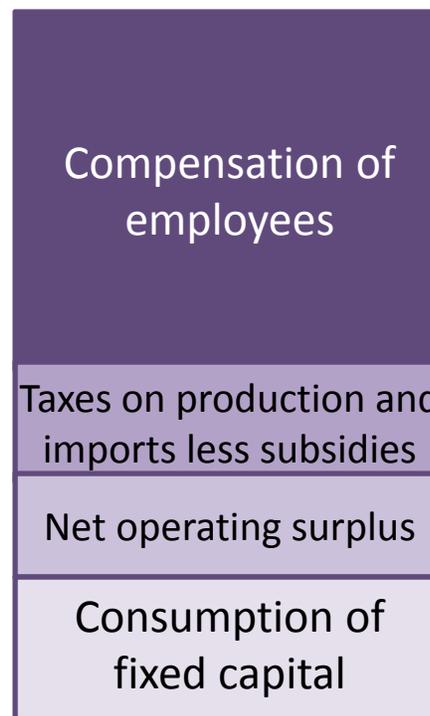
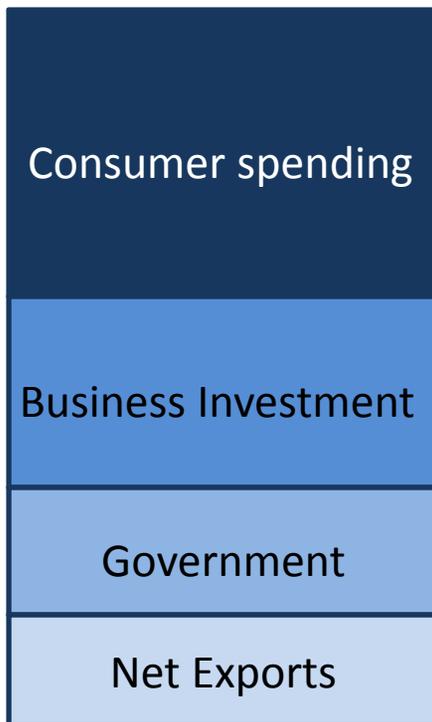


Three Ways to Measure Production

GDP: The sum of
final expenditures

=

GDI: The sum of
payments and
costs incurred



Three Ways to Measure Production

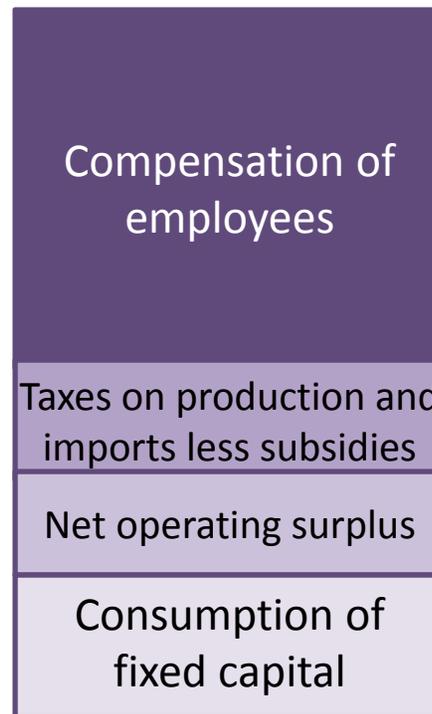
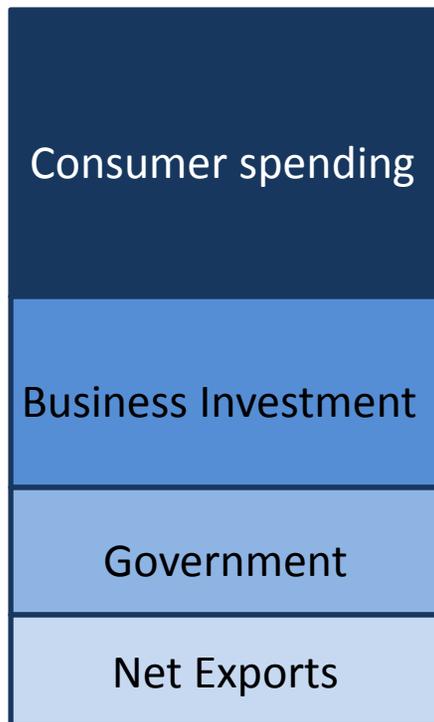
GDP: The sum of final expenditures

=

GDI: The sum of payments and costs incurred

=

Gross Value Added: The sum of gross output less intermediate purchases across all private industries and government



Why is income equal to expenditures?

Individuals

Business

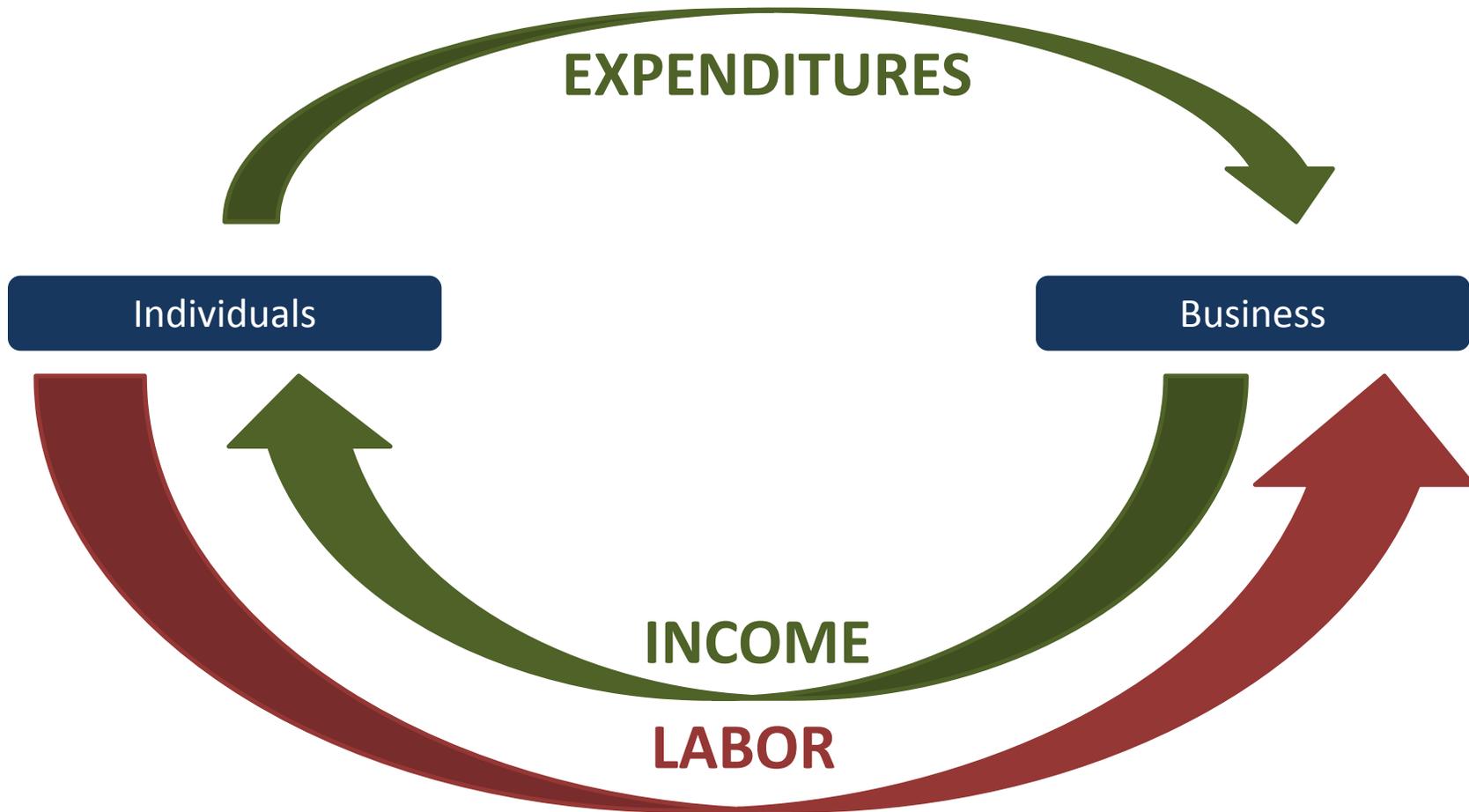
Why is income equal to expenditures?



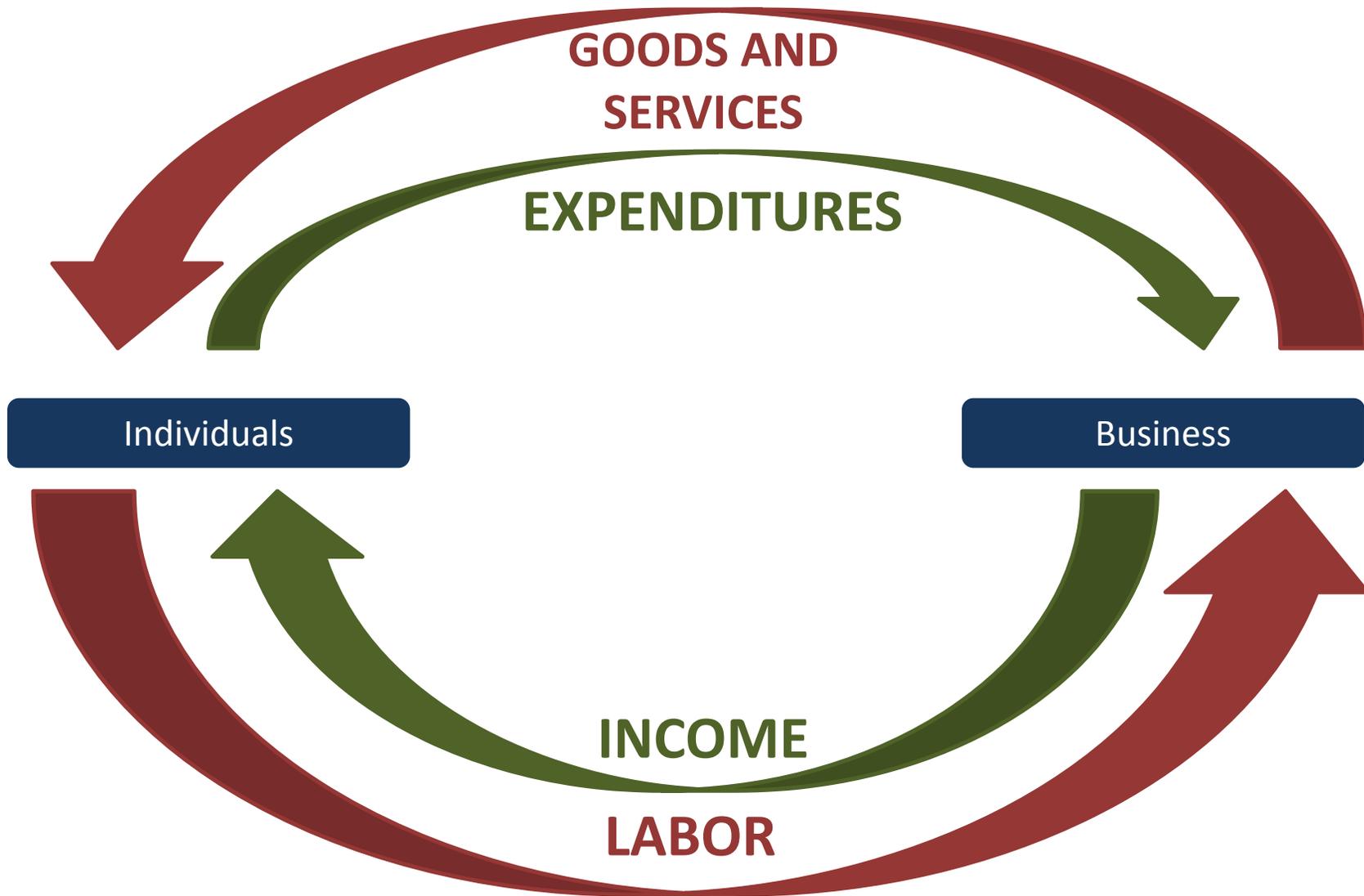
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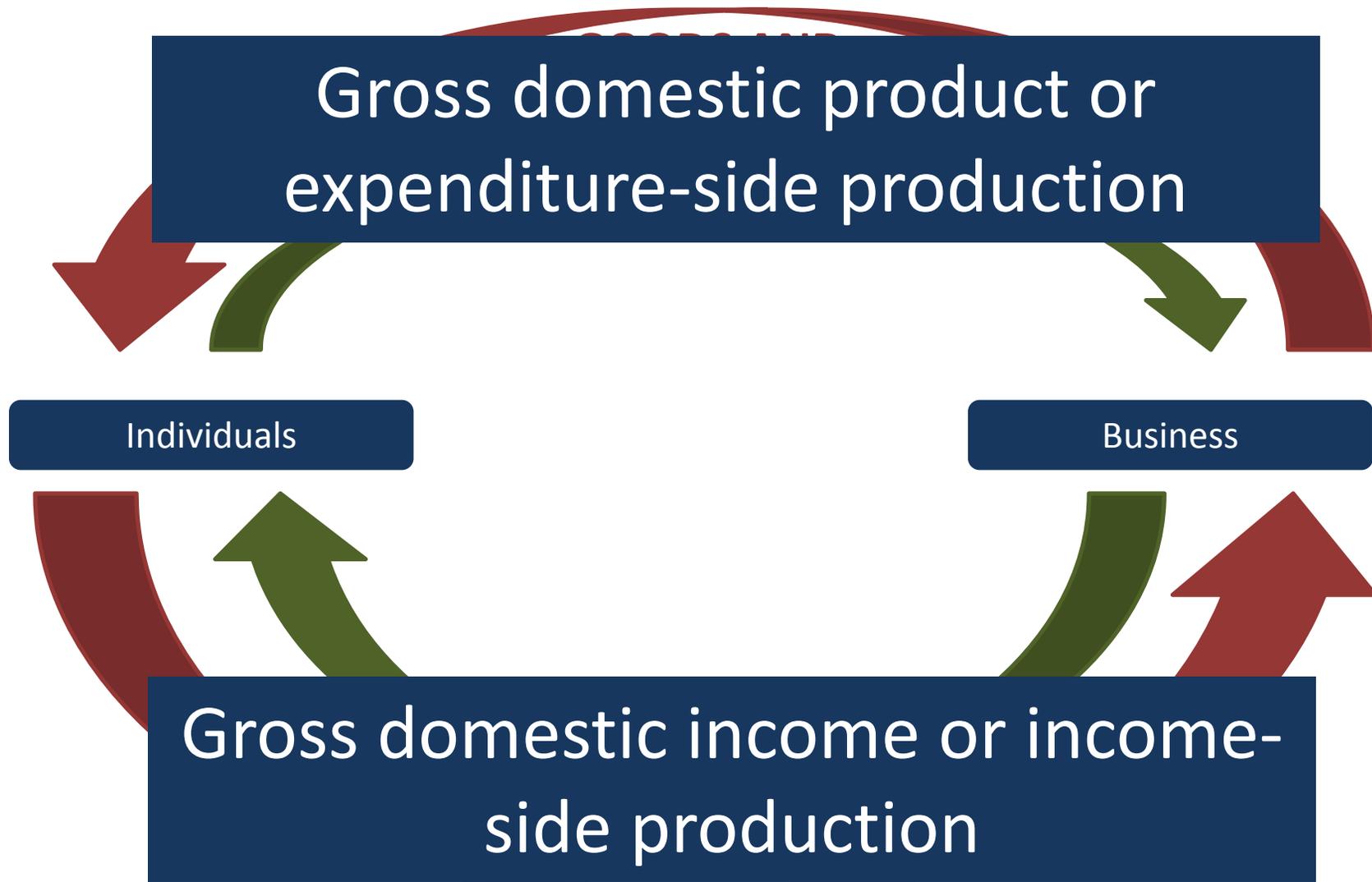
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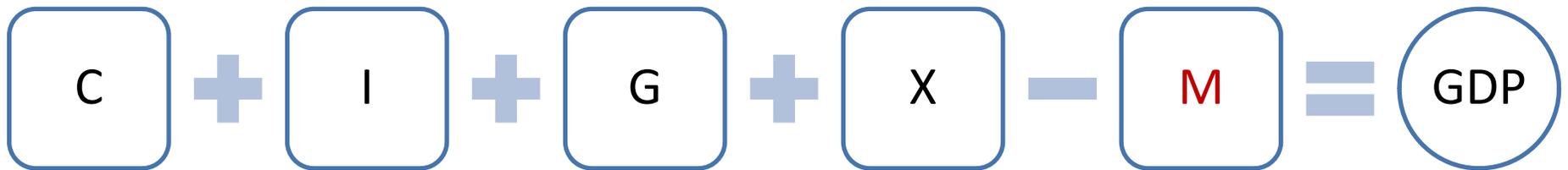
Why is income equal to expenditures?



Why is income equal to expenditures?



Expenditure-Side Production (GDP)

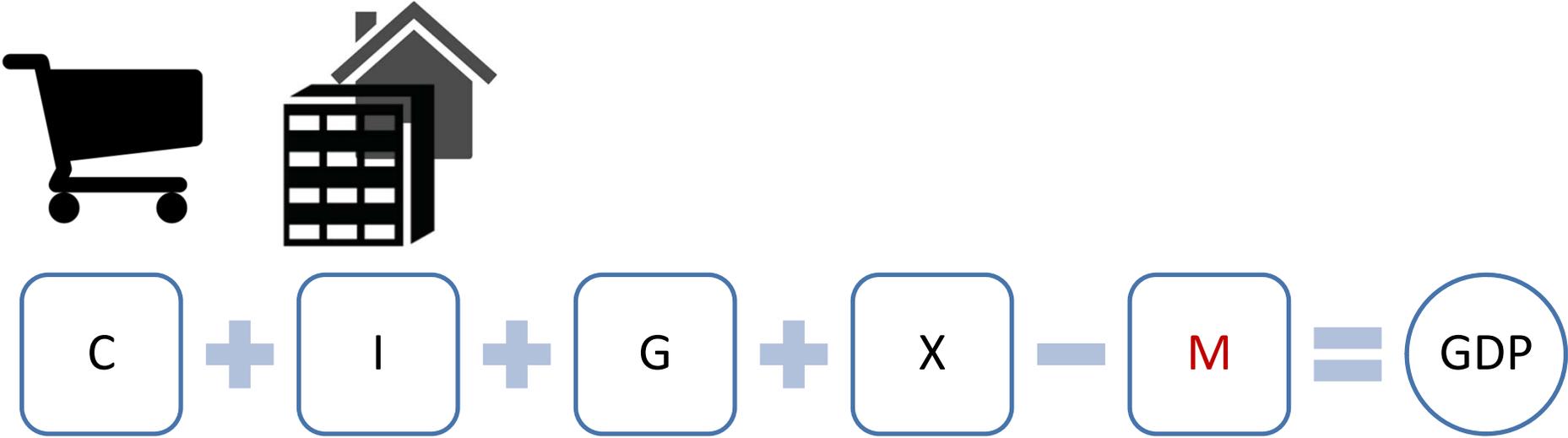
$$C + I + G + X - M = \text{GDP}$$


Expenditure-Side Production (GDP)

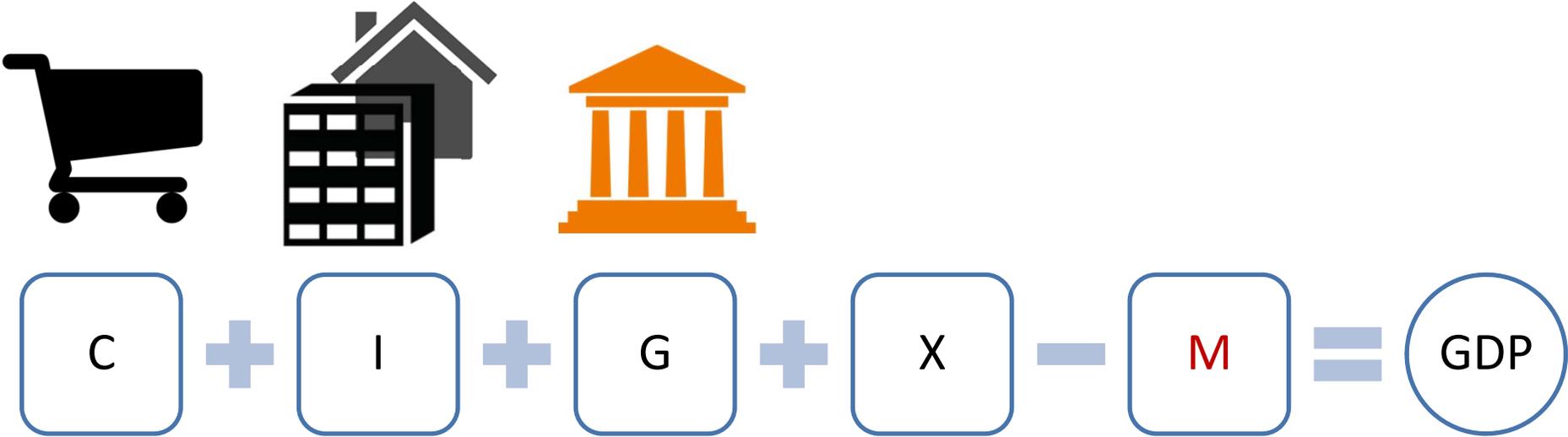


$$C + I + G + X - M = \text{GDP}$$

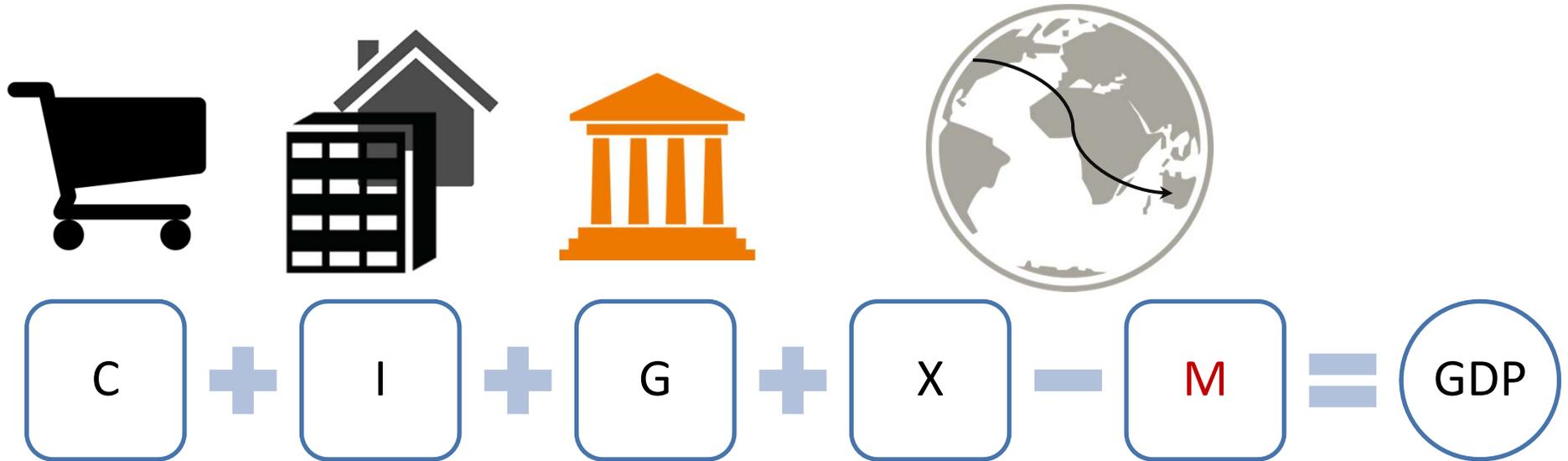
Expenditure-Side Production (GDP)



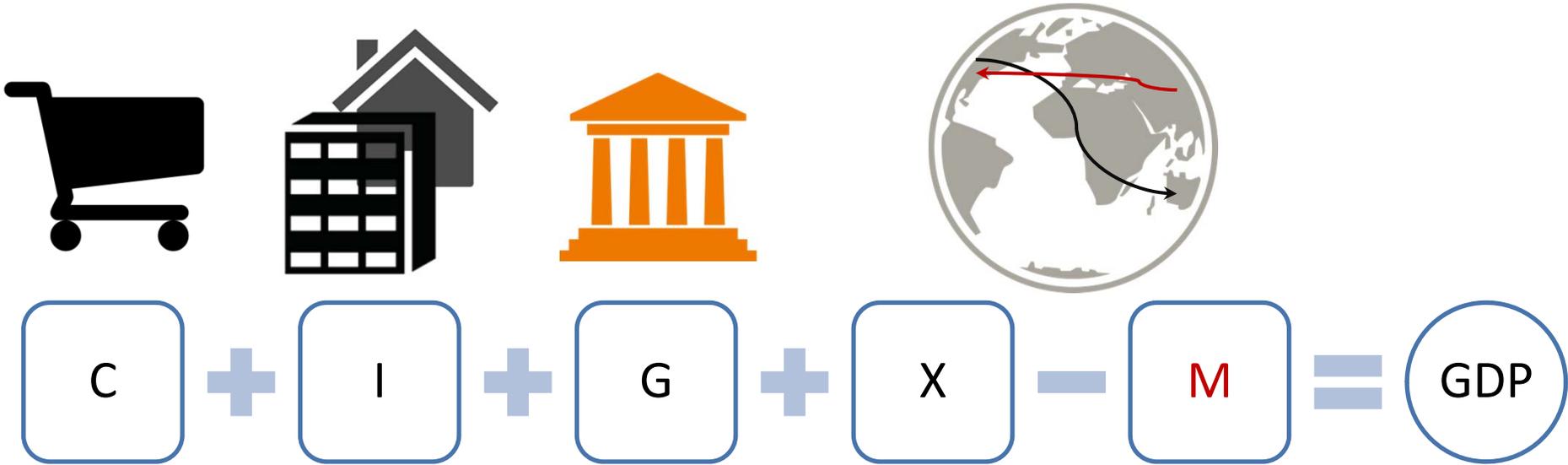
Expenditure-Side Production (GDP)



Expenditure-Side Production (GDP)



Expenditure-Side Production (GDP)



Submit Questions to Ask GDP

The screenshot shows a WebEx training center window. On the right side, there is a 'Participants' panel with a list of attendees: 'Participant 1', 'MC PAGE, (Host)', and 'Attendee 2'. Below this is a 'Chat' panel. A red circle highlights the chat area, which contains the text 'Comments and questions from other participants visible here.' Below the chat area is a text input field with the placeholder text 'Type your question here.' and a 'Send' button. A red arrow points from the text 'Please select "Ask GDP" to submit a question.' to the 'Send' button. Another red arrow points from the text 'Chat Panel' to the chat area.

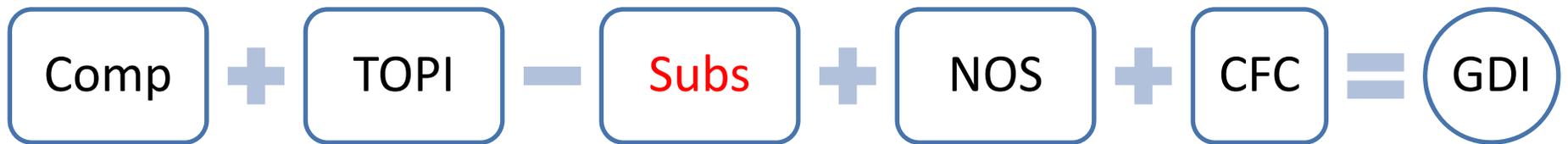
Chat Panel

Comments and questions from other participants visible here.

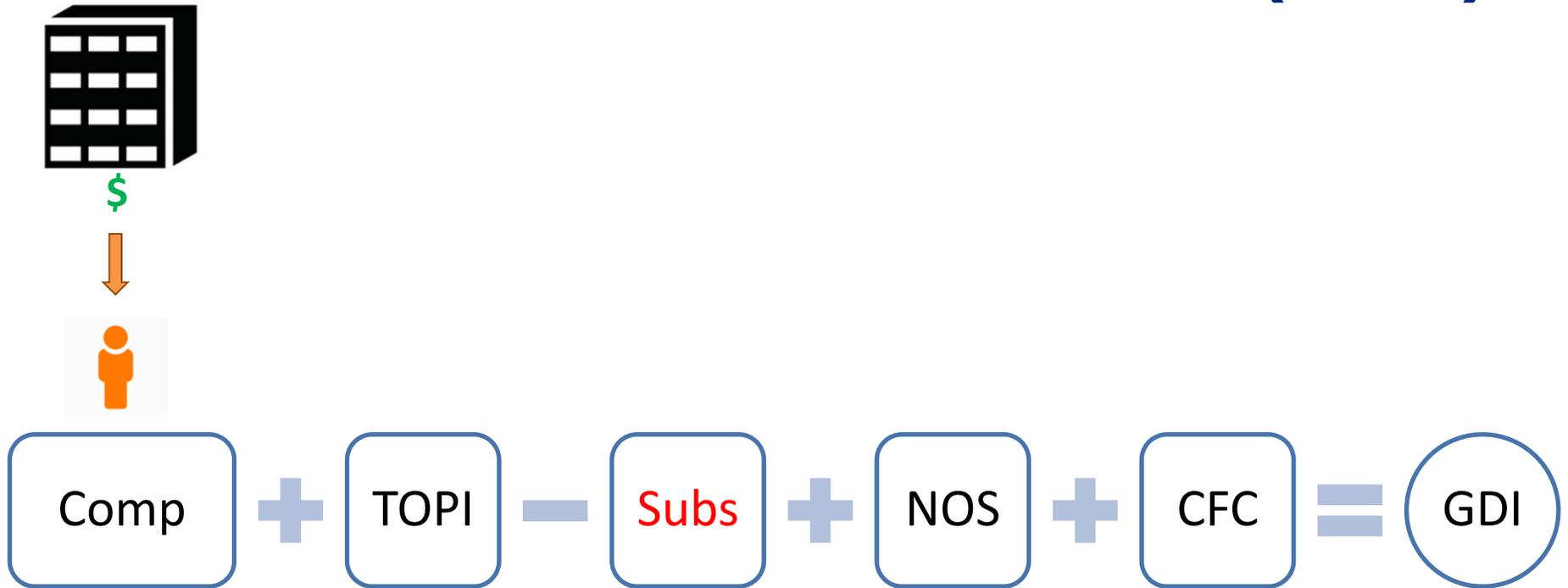
Please select "Ask GDP" to submit a question.

Type your question here.

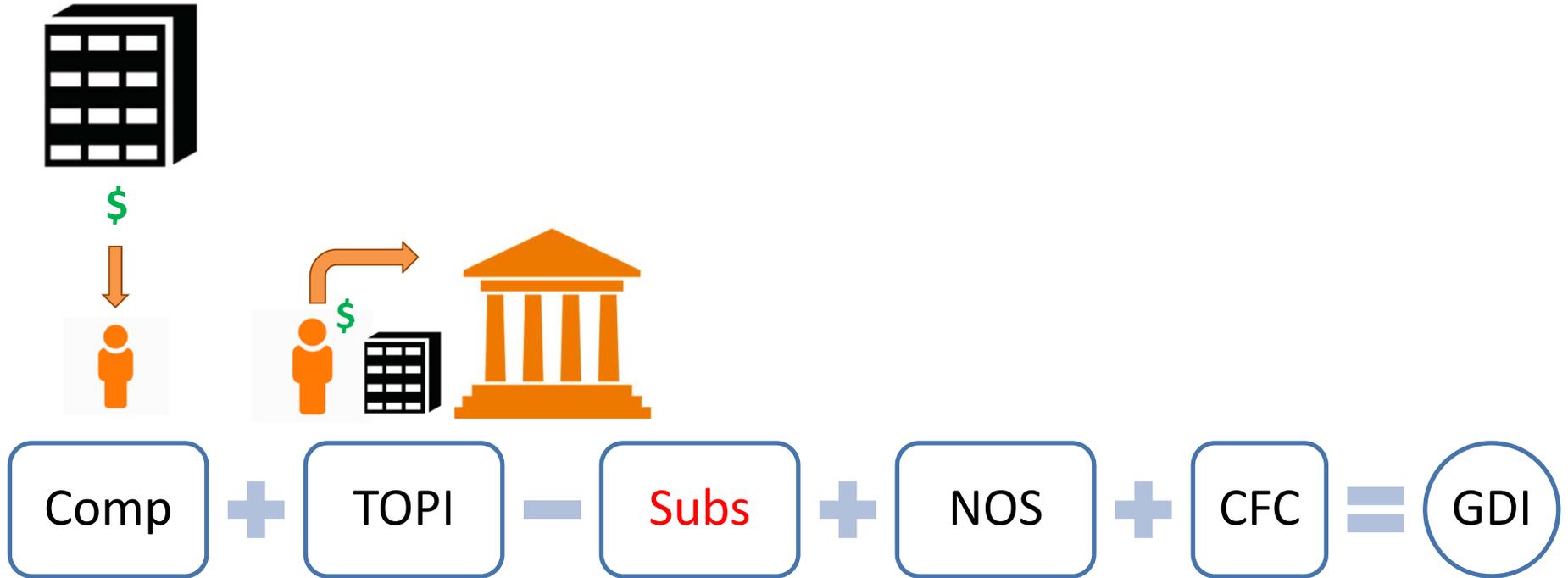
Income-Side Production (GDI)



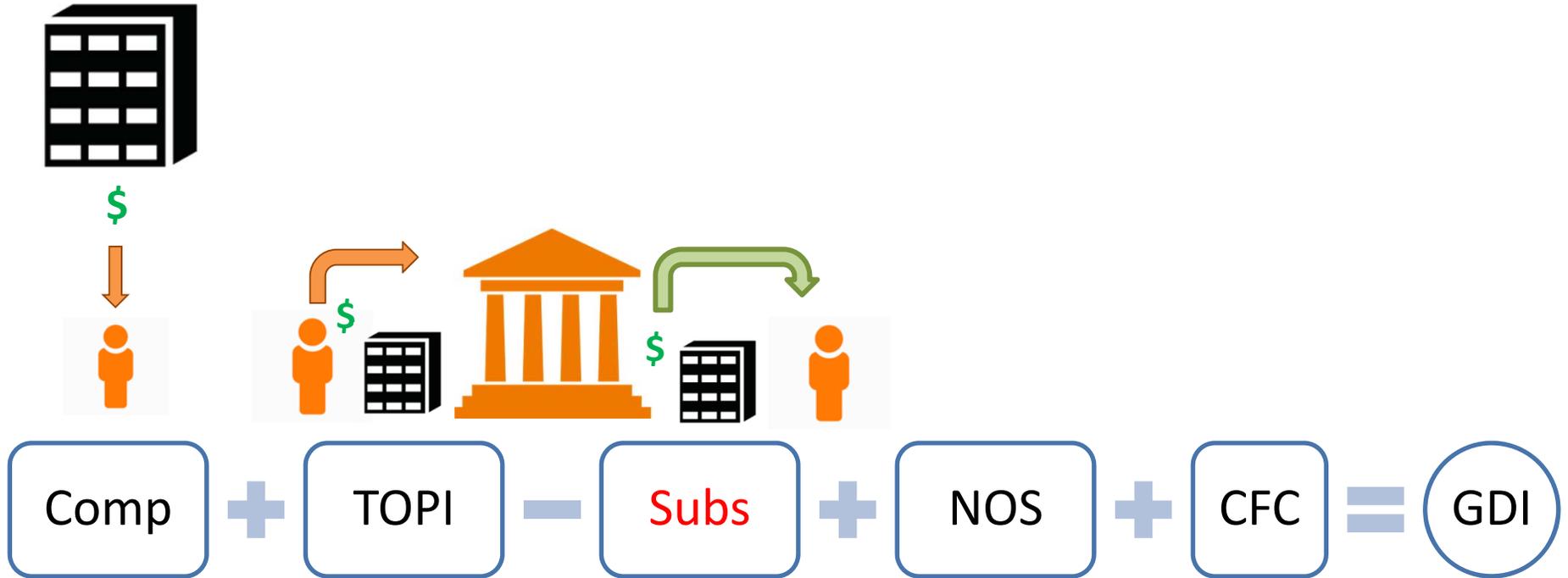
Income-Side Production (GDI)



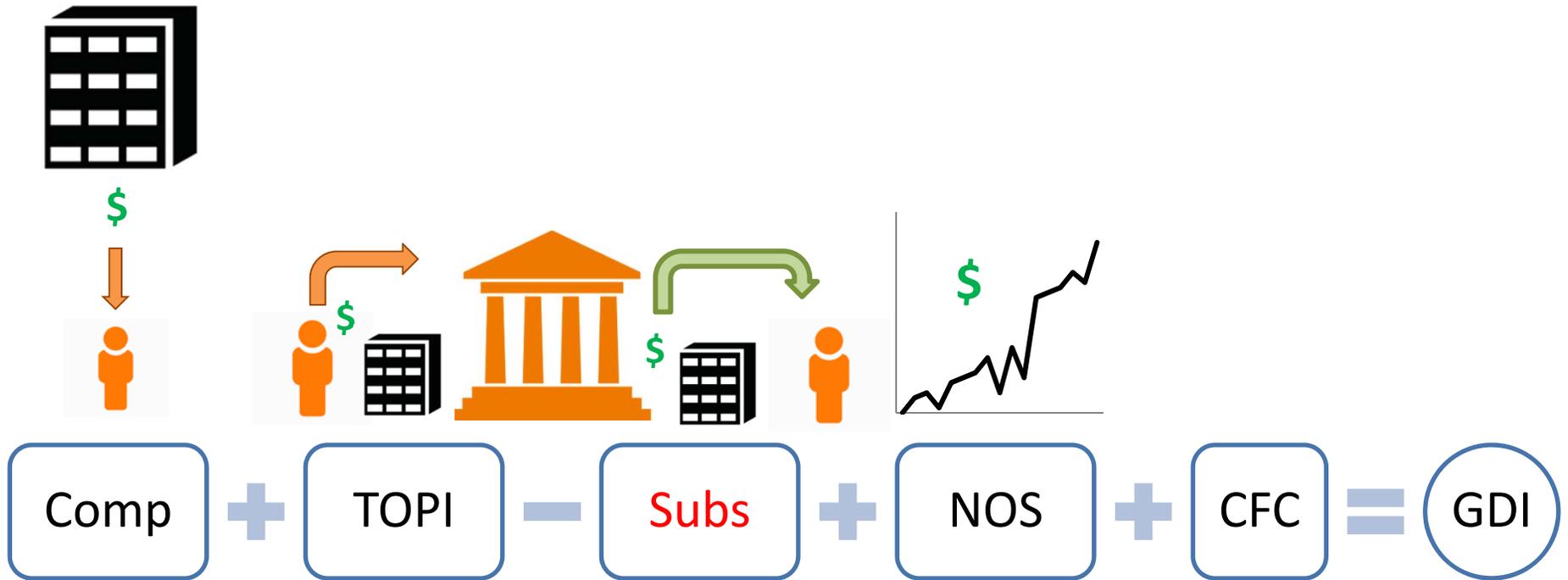
Income-Side Production (GDI)



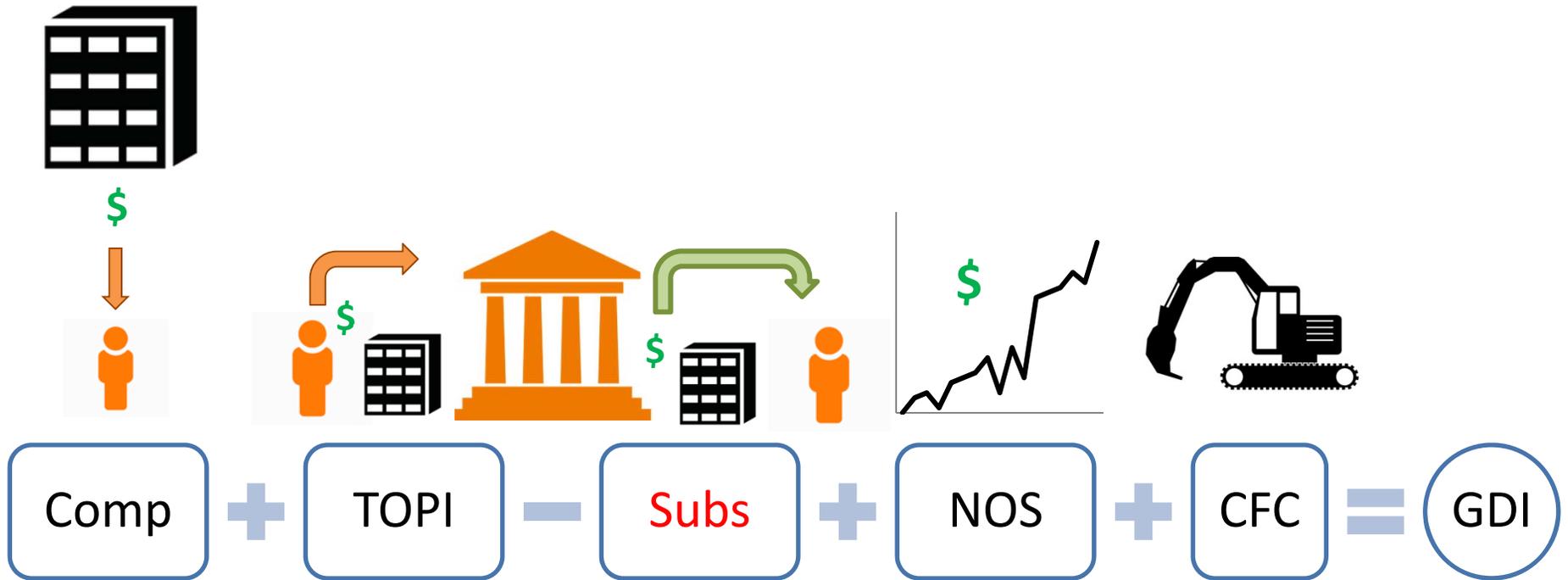
Income-Side Production (GDI)



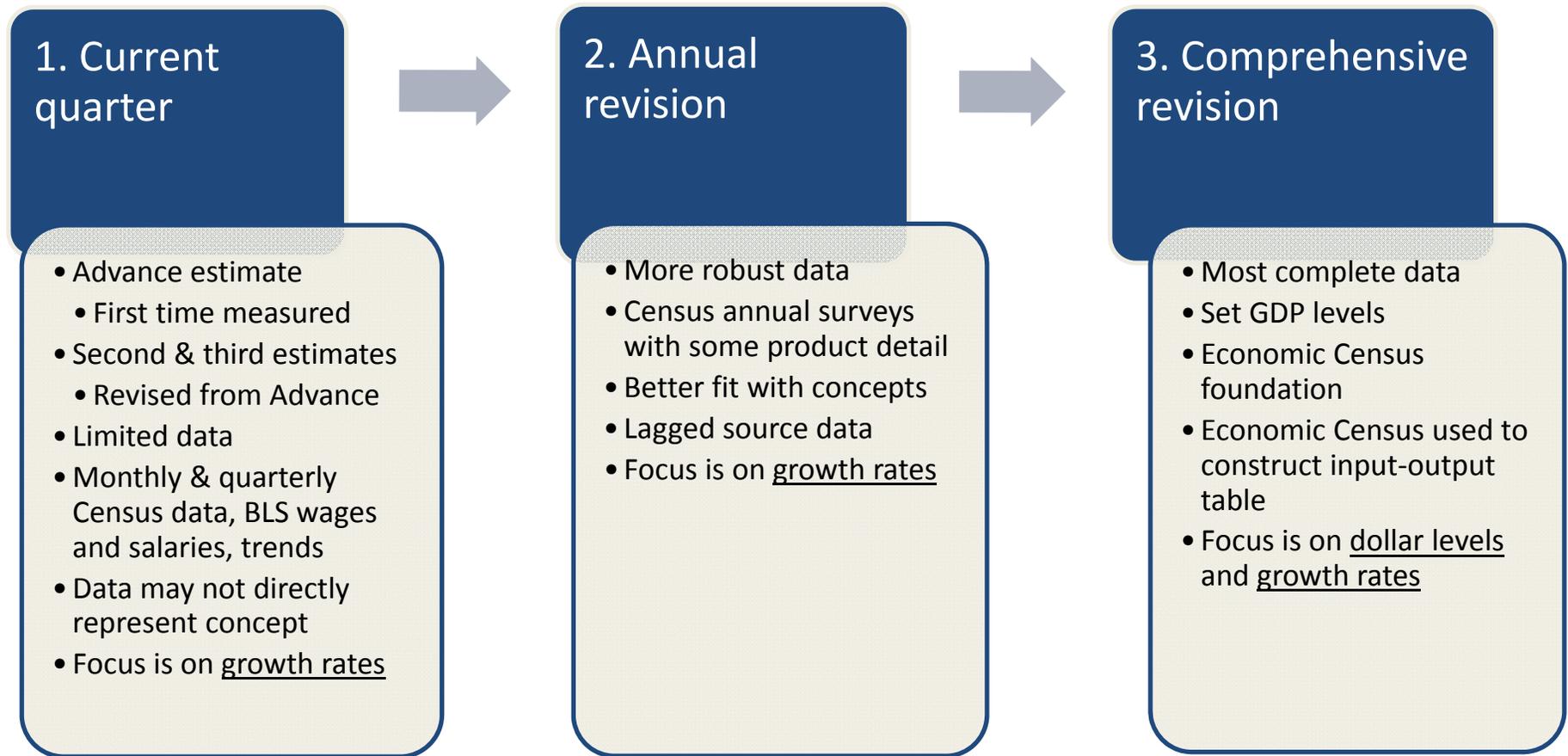
Income-Side Production (GDI)



Income-Side Production (GDI)



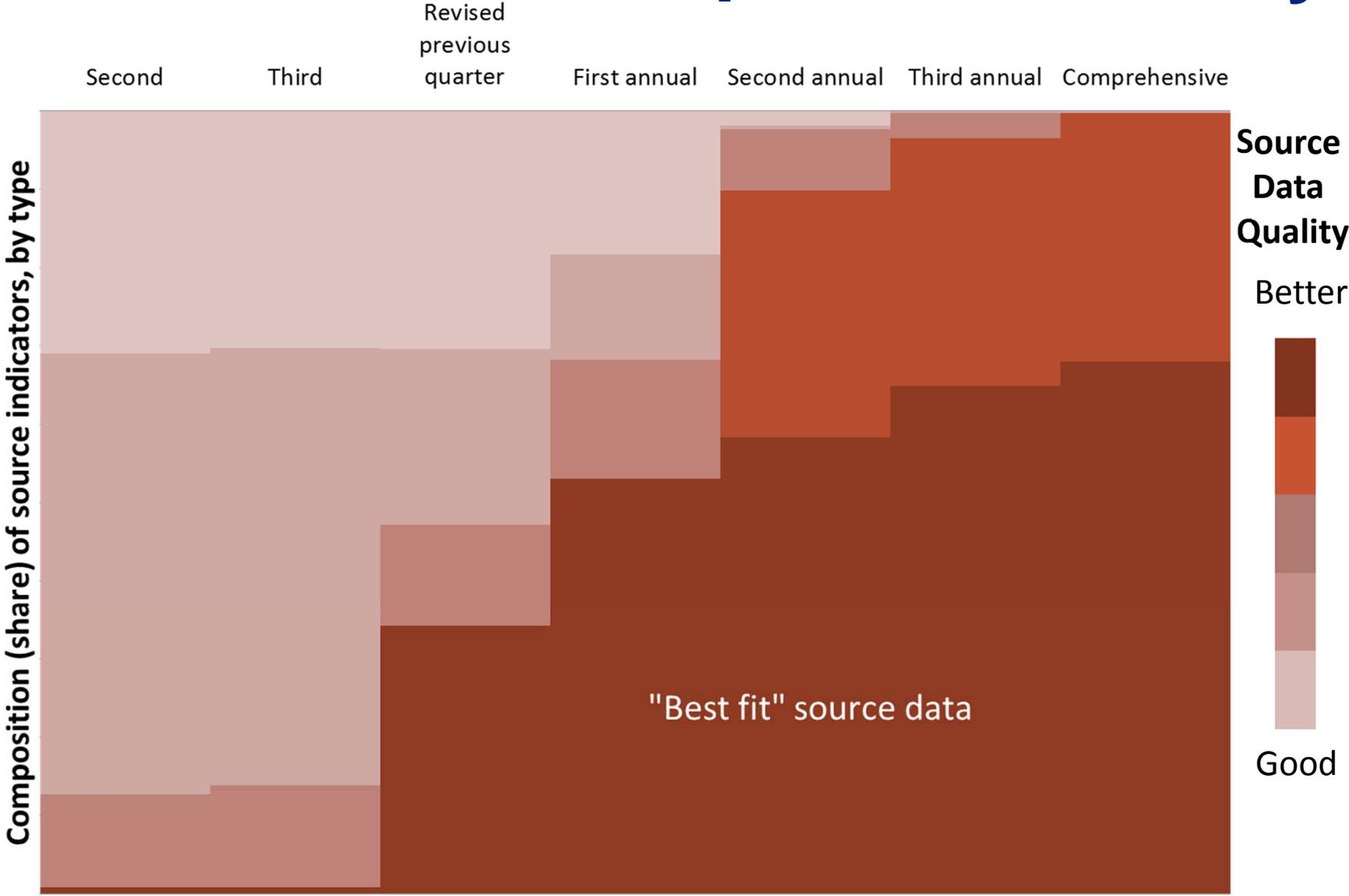
Release Cycle for GDP



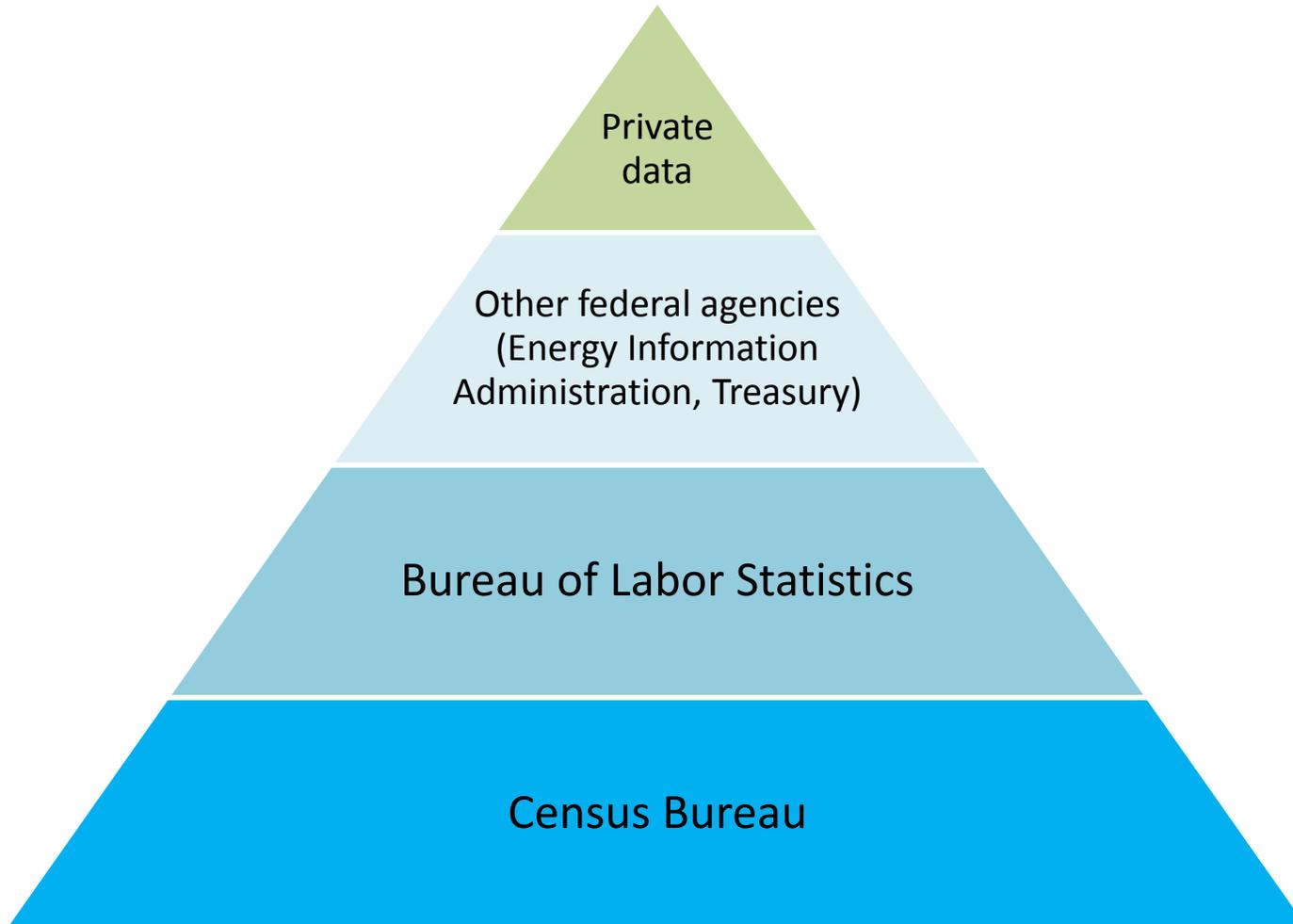
Revisions to GDP Improve Accuracy



Revisions to GDI Improve Accuracy



What are the main data sources for GDP and GDI?



Census Advance Report Data BEA Uses in GDP Estimates

Census Produces

BEA uses these to calculate:

Advance Report on Durable Goods Manufacturers (M3)

Investment in private equipment; Change in private inventories

Advance Retail Trade

Personal consumption expenditures

NEW

Advance International Trade in Goods

Imports and exports

COMING SOON

Advance Retail & Wholesale Inventories

Change in private inventories

Census Data BEA Uses in GDP Estimates

Census Produces

BEA uses these to calculate:

M3 & Annual Survey of
Manufactures

Investment in private
equipment; Change in
private inventories

Monthly and Annual
Retail Trade Surveys

Personal consumption
expenditures; Change in
private inventories

Monthly and Annual
Wholesale Trade Surveys

Change in private
inventories

Value of Construction Put
in Place

Investment in structures

U.S. International Trade in
Goods and Services

Imports and exports

Census Quarterly Data BEA Uses in GDP Estimates

Census Produces

BEA uses these to calculate:

Quarterly Services Survey;
Service Annual Survey

Personal **consumption** expenditures; Private **investment** in intellectual property

Quarterly Financial Report

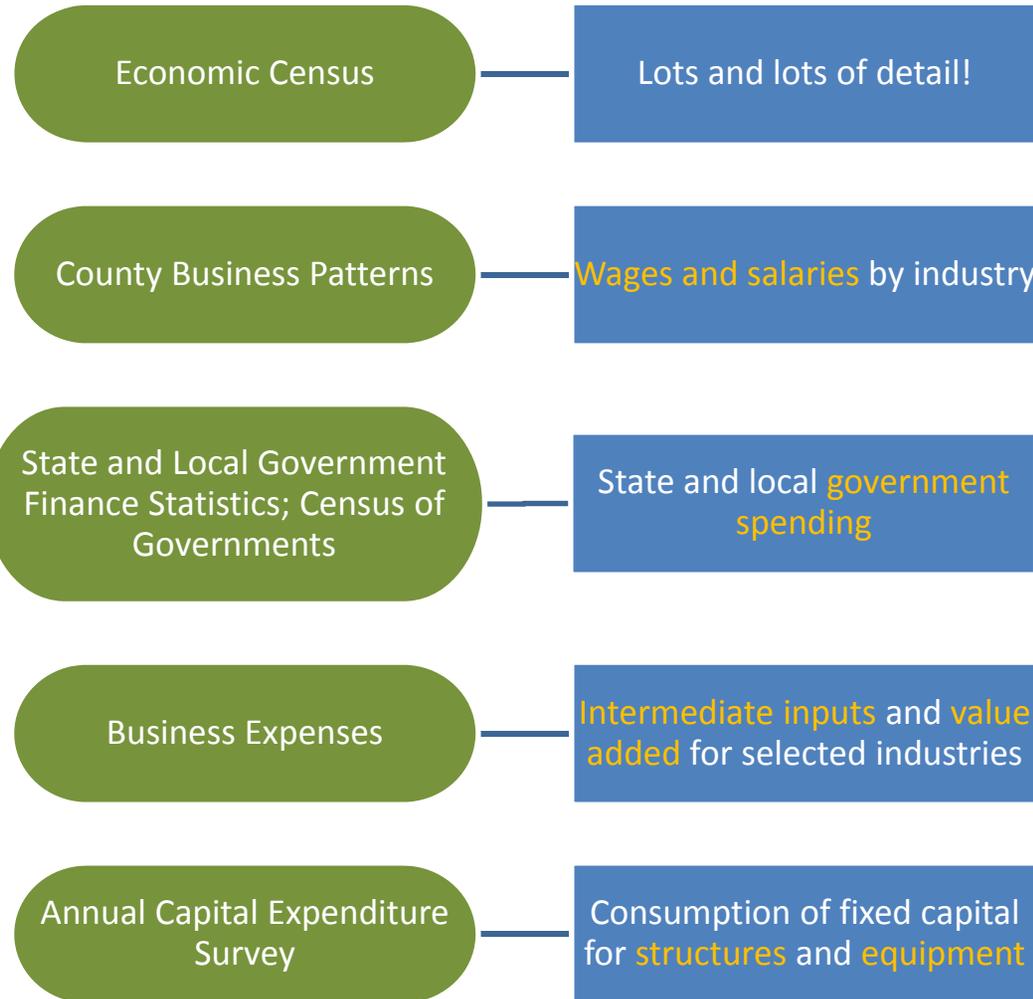
Corporate **profits**

Change in private **inventories**

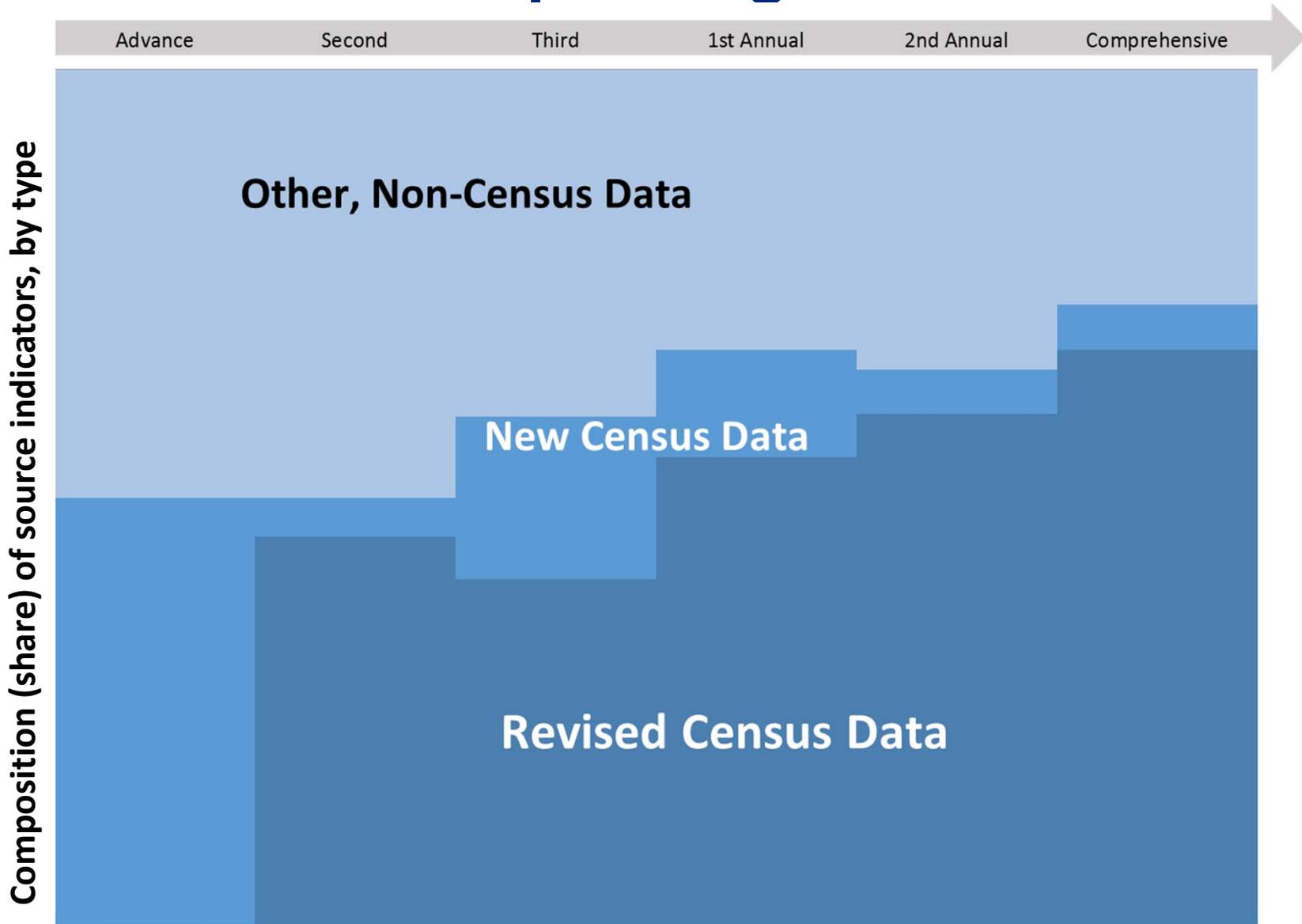
Census Data BEA Uses in GDP Estimates

Census Produces

BEA uses these to calculate:



Consumer Spending Source Data



Consumer Spending Components

- **Durable Goods** - Goods with a life span of 3 years or more
 - Approximately 11 percent of consumer spending
- **Nondurable Goods** - Goods with a life span of less than 3 years
 - Approximately 23 percent of consumer spending
- **Services** - Commodities which cannot be stored and are consumed at time and place of purchase
 - Approximately 66 percent of consumer spending

Primary Data Sources for Consumer Spending: Annual Estimates

- Consumer Spending on Goods:
 - Census Monthly Retail Trade Survey
 - Census Annual Retail Trade Survey
 - Economic Census
 - Other government sources
 - Private/trade sources

- Consumer Spending on Services:
 - Census Services Annual Survey
 - Economic Census
 - Housing Surveys conducted by Census for Housing and Urban Development
 - Other government sources
 - Private/trade sources

Primary Data Sources for Consumer Spending: Current Estimates

- Consumer Spending on Goods:
 - Census Monthly Retail Trade Survey
 - Other government sources
 - Private/trade sources
 - Bureau of Labor Statistics price data
- Consumer Spending on Services:
 - Census Quarterly Services Survey
 - Other government sources
 - Private/trade sources
 - Bureau of Labor Statistics price data

Importance of Census Retail Sales Data

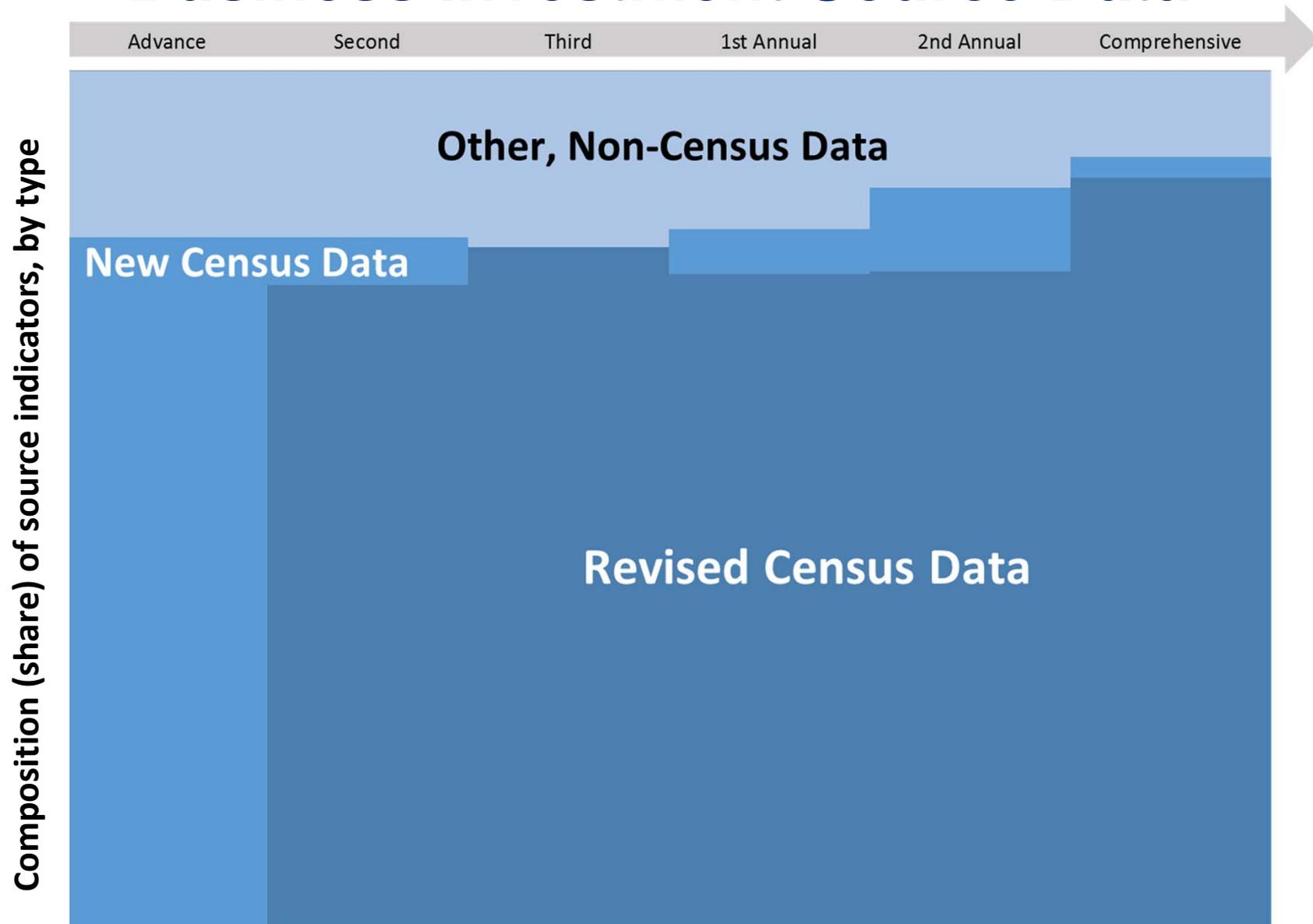
- Underlying source data for most consumer spending on goods estimates
- Retail sales data provides the best approximation for measuring consumer expenditures on goods because most consumers purchase goods through the retail channel
- Economic Census provides detailed product line tabulations to give a breakdown of product sales in each industry



Importance of Census Services Annual Survey and Quarterly Services Survey

- Underlying source data for many consumer spending on services estimates
- Services Annual Survey and Quarterly Services Survey data provide the most comprehensive revenue and expense patterns in real time on services industries
- For some industries Census provides product and/or household specific details; provide a better alignment with the consumer spending on services structure

Business Investment Source Data



Business Investment Components

- Structures
 - Residential
 - Nonresidential
- Equipment
- Intellectual property products
 - Software
 - Research and development
 - Entertainment, literary, and artistic originals
- Change in private inventories

Primary Source Data for Structures

- Nonresidential
 - Census Value of Construction Put in Place
 - Prices for single-family houses under construction
 - American Petroleum Institute
- Residential
 - Census Value of Construction Put in Place
 - Prices for single-family houses under construction
 - Census retail sales

Primary Source Data for Equipment

- Economic Census of manufactures
- Annual Survey of Manufactures
- Advance Report on Durable Goods Manufacturers (M3)
- Census/BEA trade data
- Motor vehicle data from trade sources
- Bureau of Labor Statistics price data

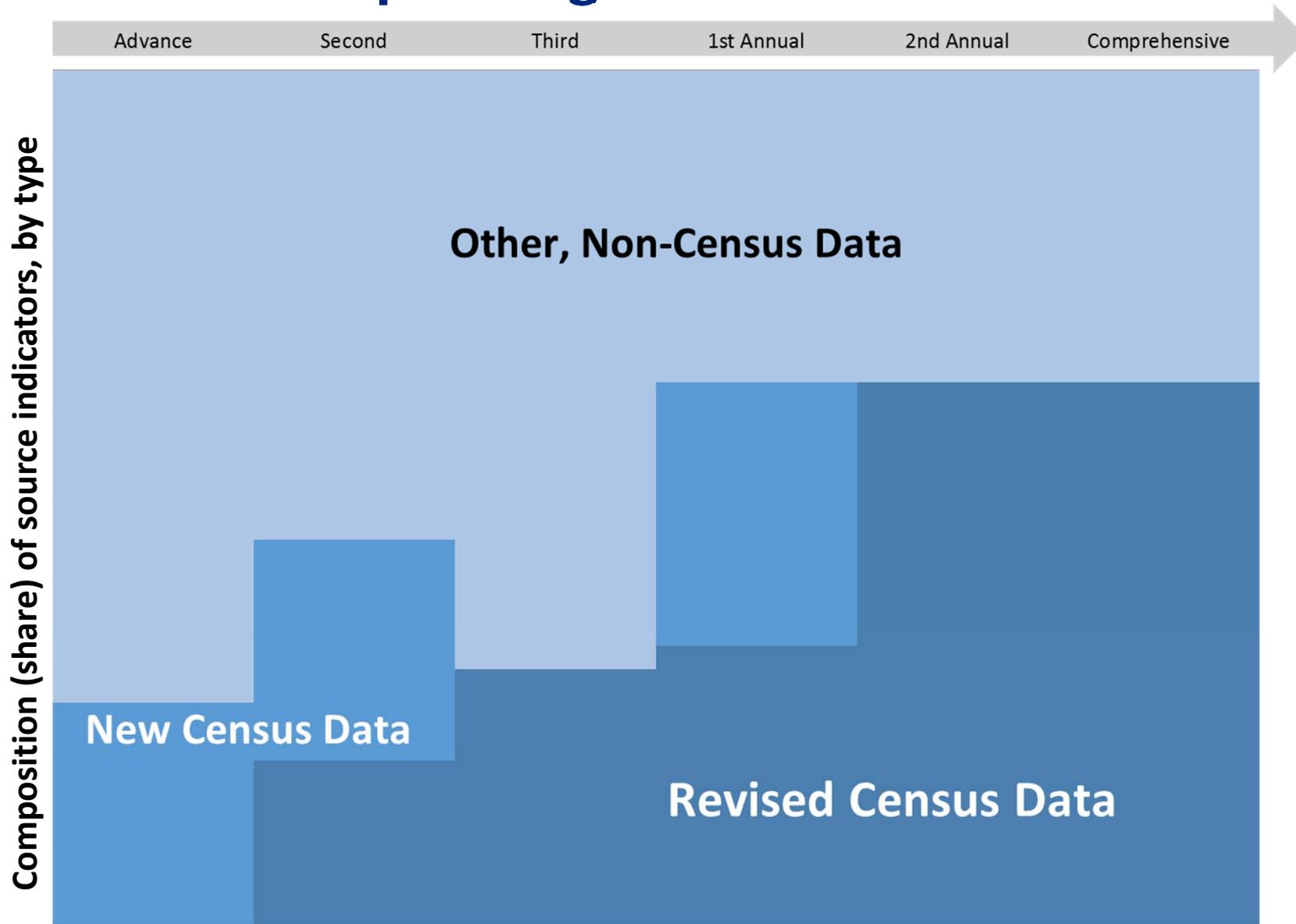
Primary Source Data for Intellectual Property Products

- Software
 - Census Services Annual Survey
 - Census Quarterly Services Survey
 - Bureau of Labor Statistics employment occupational survey
- Research and development
 - Economic Census
 - Surveys conducted by Census for the National Science Foundation
 - Companies' R&D expense data from quarterly and annual financial reports
- Entertainment, literary, and artistic originals
 - Census Services Annual Survey
 - Census Quarterly Services Survey
 - Bureau of Labor Statistics current employment statistics

Primary Source Data for Change in Private Inventories

- Economic Census
- Annual Survey of Manufactures
- Advance Report on Durable Goods Manufacturers (M3)
- Advance Retail & Wholesale Inventories (Coming Soon)
- Monthly Wholesale Trade Survey
- Annual Wholesale Trade Survey
- Monthly Retail Trade Survey
- Annual Retail Trade Survey
- Value of Construction Put in Place
- Quarterly Financial Report
- Services Annual Survey

Government Spending and Investment Source Data



Government Spending and Investment Components

- Consumption expenditures:
 - Employee compensation
 - Consumption of fixed capital (CFC)
 - Purchases of intermediate goods and services
 - Less: Own-account investment and sales to other sectors
- Gross investment:
 - Structures, equipment and intellectual property
- Excludes spending for social benefits, other transfers, interest, and subsidies

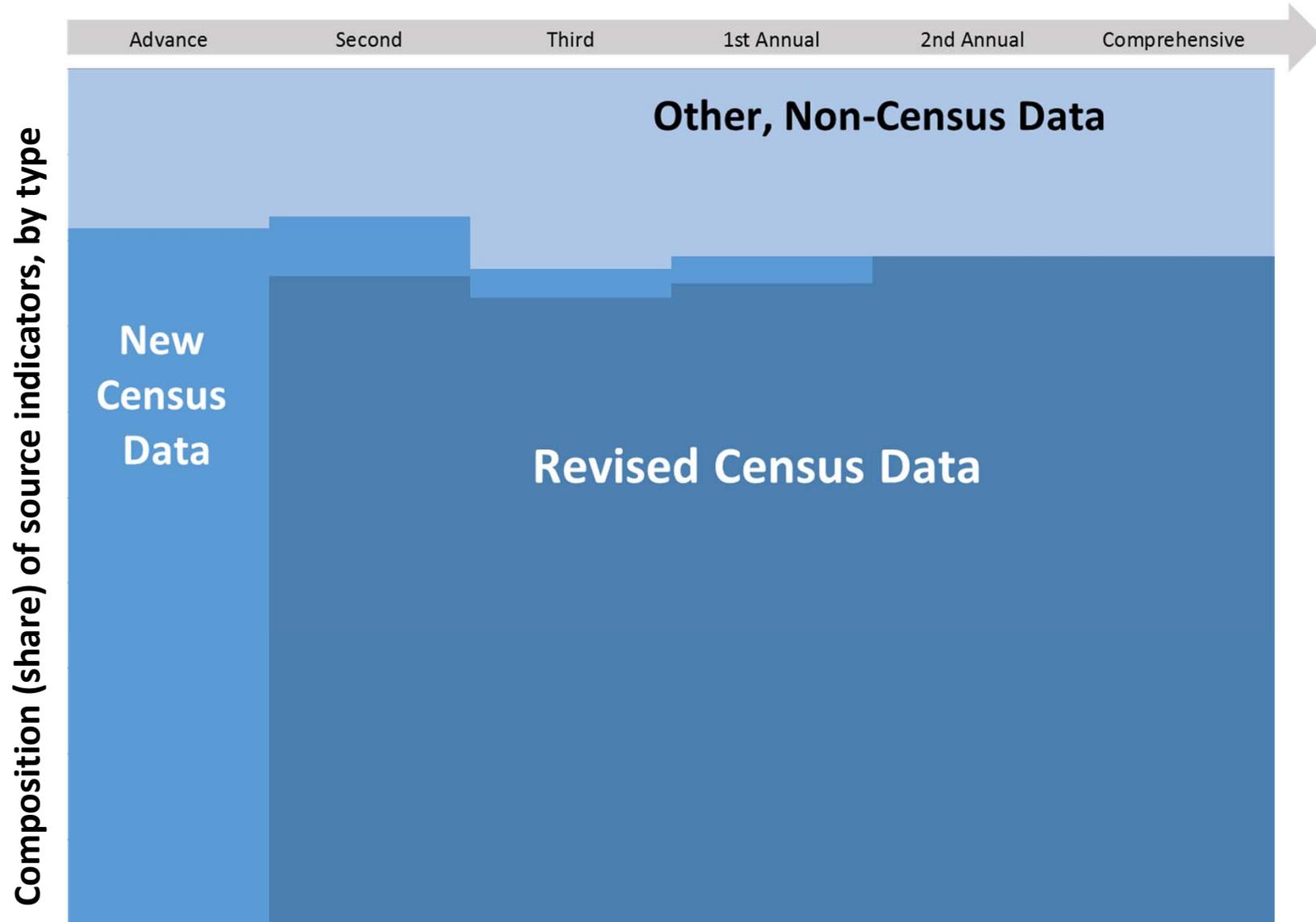
Primary Source Data for Federal Government

- Controls based on administrative data
 - Budget
 - Monthly Treasury Statement
- Allocations of spending based on other data
 - BLS Quarterly Census of Employment and Wages
 - Agency reports
 - Census Value of Construction Put in Place
 - R&D Surveys conducted by Census for the National Science Foundation

Primary Source Data for State and Local Government

- Census Bureau
 - *Census of Governments* every five years
 - *Government Finances* series of annual surveys in non-Census years
 - Value of Construction Put in Place
 - Annual surveys of pensions, employment
 - Services Annual Survey, Quarterly Services Survey
- R&D Surveys conducted by Census for the National Science Foundation
- BLS Quarterly Census of Employment and Wages

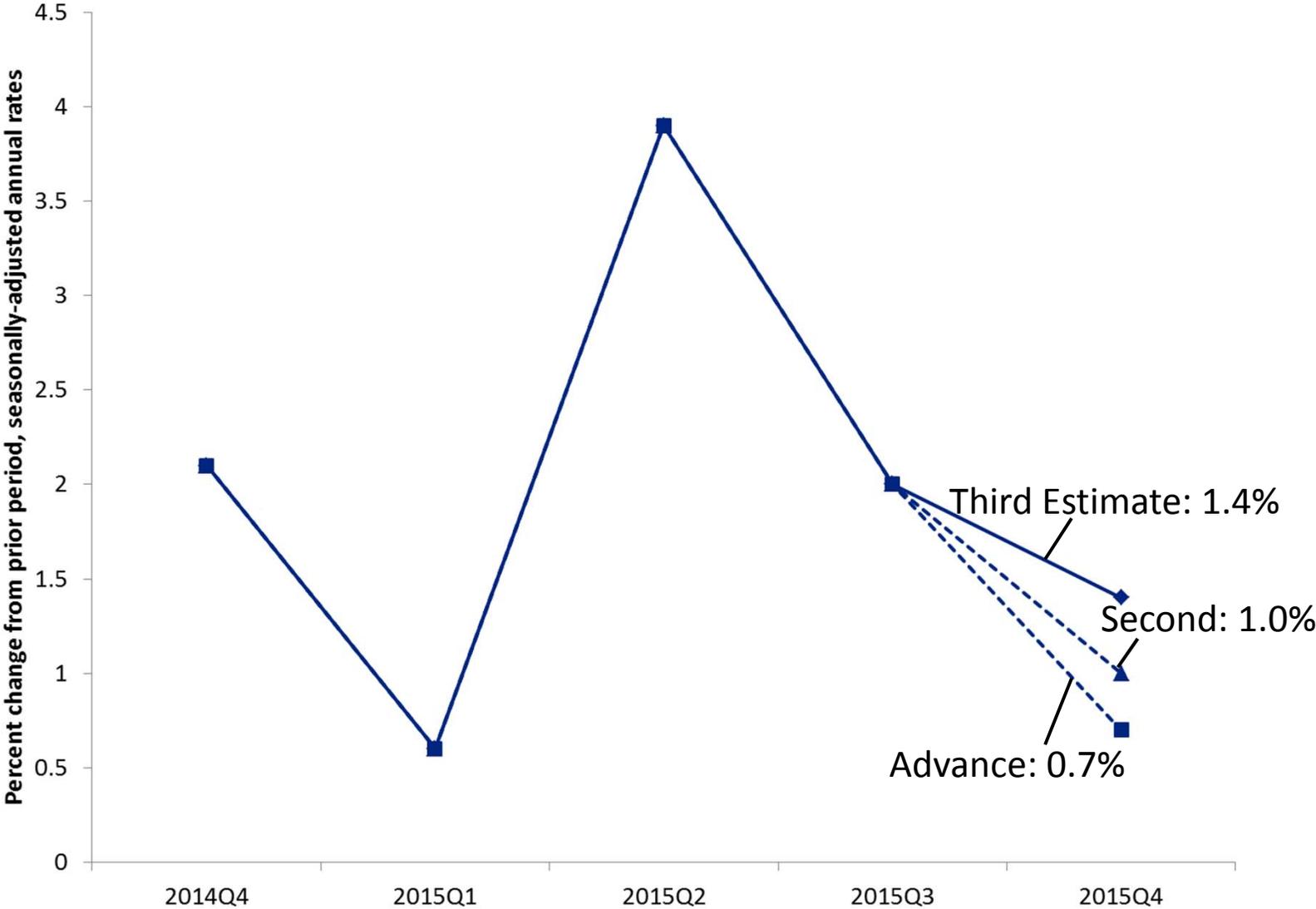
International Trade Source Data



Primary Source Data for International Trade

- Monthly Census Bureau trade data
 - With adjustments by BEA to a balance-of-payments basis
 - And other adjustments by BEA from a balance-of-payments basis to a national accounting basis
- BEA quarterly surveys
- Department of Defense data on services and some goods provided by U.S. military agencies
- Department of Homeland Security data on the number of foreign visitors by air
- Office of Travel and Tourism Industries survey of international air travelers

The Third Estimate of 2015Q4 GDP



Revisions to 2015Q4 GDP Components

Upward revision to consumer spending

- Census Quarterly Services Survey
- FDIC *Call Report*

Upward revision to exports

- International transactions account data

Downward revision to inventories

- Revised Census inventory data



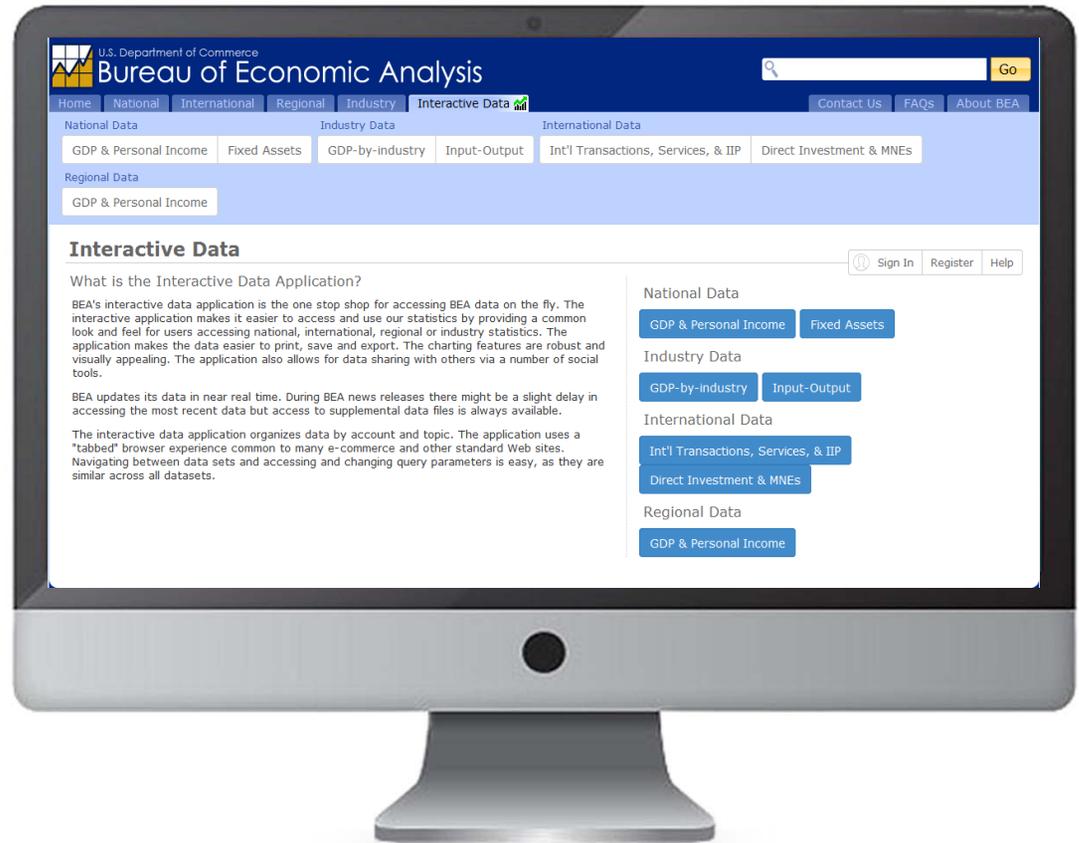
Data, Tools, Apps, & Training

Upcoming Data Releases from BEA

- April 21: GDP by Industry, 2015Q4 and 2015
 - Value-added production
- April 28: GDP, 2016Q1 Advance estimate
 - Expenditure-side production
- May 27: GDP and GDI, 2016Q1 second estimate
 - Expenditure-side and income-side production
- June 14: GDP by State, 2015Q4 and 2015
- July 29: 2016 Annual Revision of the National Income and Product Accounts

BEA's Interactive Data Tables

- National Data
 - GDP & Personal Income
 - Fixed Assets
- Industry Data
 - GDP-by-Industry
 - Input-Output
- International Data
 - International Transactions, Services & IIP
 - Direct Investment & MNEs
- Regional Data
 - GDP & Personal Income

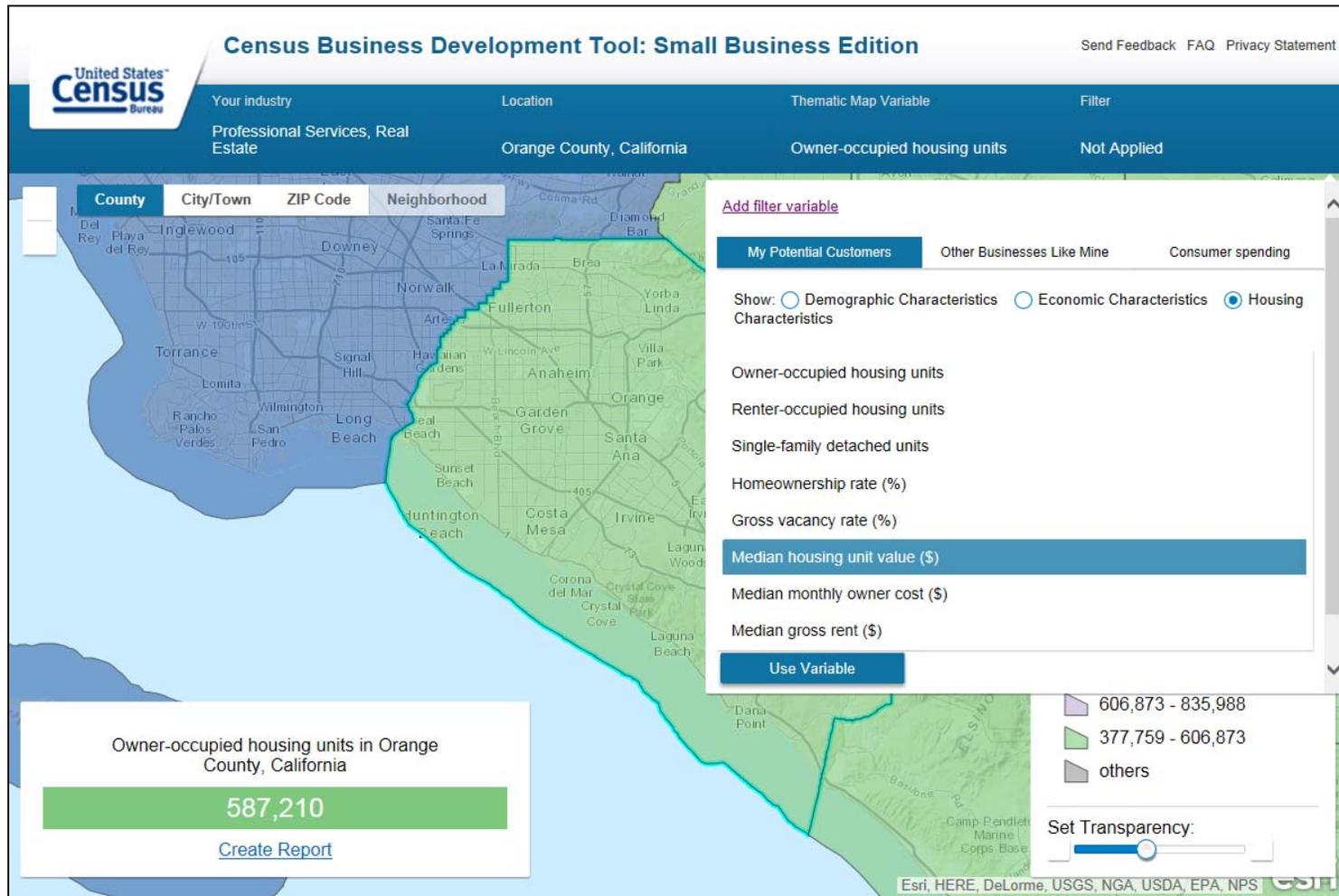


What data will you discover? Find out at:
<http://bea.gov/itable/index.cfm>

Economic Data from the Census Bureau

- Economic Indicators Briefing Room - <http://www.census.gov/economic-indicators/> Access all monthly and quarterly Economic Indicators data presented by the Census Bureau, including the data presented today.
- Business and Industry - <http://www.census.gov/econ/>
 - Access all of the annual Economic data presented by the Census Bureau, including County Business Patterns and the *Census of Governments* and *Governments Finances*
- Economic Census - business.census.gov
 - Access the latest data from the 2012 Economic Census

Census Business Builder



www.census.gov/data/data-tools/cbb

America's Economy: Mobile App

<https://www.youtube.com/watch?v=cd9cZ9sPSpl>

Indicators Available:

- Advance Monthly Retail Sales
- Advance Report Durable Goods
- Business Inventories
- Construction Spending
- Consumer Price Index
- Homeownership Rate
- International Trade
- Manufacturers' Goods
- Monthly Wholesale
- New Residential Construction
- New Residential Sales
- Nonfarm Payroll
- Personal Income
- Producer Price Index
- QFR–Manufacturing
- QFR–Retail Trade
- Quarterly Services Survey
- Real Gross Domestic Product
- Unemployment Rate

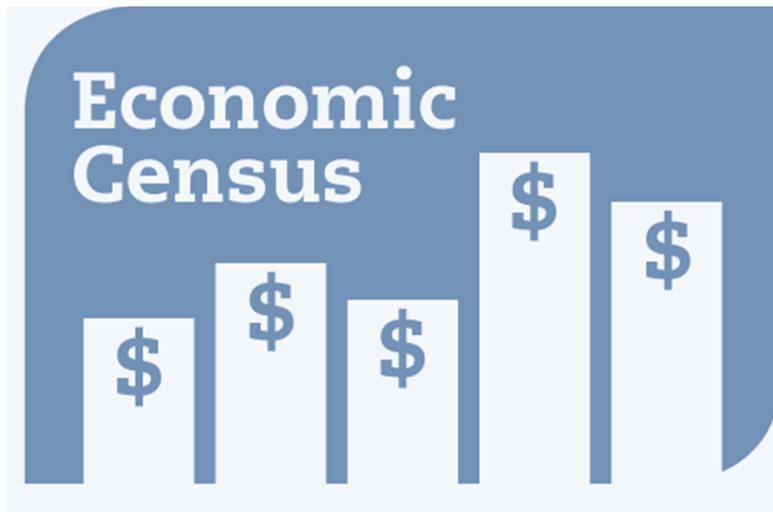


www.census.gov/mobile

Available for iPhone, iPad, and
Android devices

NEW

Upcoming Webinars & Short Survey: <https://questionweb.com/21106>



Relationships between Monthly Indicators to Annual Surveys and 5-Year Economic Censuses

Did you know that every five years, the U.S. Census Bureau conducts an Economic Census that affects monthly Economic Indicators and their annual counterparts? In this webinar, we will discuss how we trend monthly indicator data to the annual surveys and Economic Census.

& many more

June 29, 2016

Visit www.census.gov/econ/webinar for a complete list of upcoming webinars

Questions, Suggestions, & Feedback

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Webinar Website:
<http://www.census.gov/econ/webinar>

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