

Handout for August 2024 Newsletter Visualizing GDP Expenditure Components in FRED

Purpose.

1. Create a plot of the four expenditure components of GDP: personal consumption expenditures (C), gross private domestic investment (I), government consumption expenditures and gross investment (G), and net exports of goods and services (NX).
2. Change the graph format to show relative proportions.
3. Describe and discuss highlights and patterns in the evolution of C, I, G, and NX.

Pedagogical Rationale. This assignment requires that you first search for data online, select specific series, and plot them into a graph. Next, you will edit the format of the graph. Lastly, you will describe and discuss highlights and patterns in the evolution of the data series. These tasks will develop your proficiency in searching for, manipulating, and interpreting data.

Grading. Your grade will be determined by (a) how precisely you complete the search and manipulation data tasks and (b) how accurate your interpretation of the data is.

Steps to Search for and Manipulate the Data. Follow these steps:

1. Access <https://fred.stlouisfed.org/> and follow these links: Release > Gross Domestic Product > SECTION 1 - DOMESTIC PRODUCT AND INCOME > Table 1.1.5. Gross Domestic Product > Annual
2. Select the concepts “Personal consumption expenditures,” “Gross private domestic investment,” “Government consumption expenditures and gross investment,” and “Net exports of goods and services” by clicking on the box to the left of their names.
3. Plot the data series by clicking on “Add to Graph.”
4. Click on the orange “EDIT GRAPH” button and select the “FORMAT” tab.
5. Change “Graph type” to “Area.”
6. Change “Stacking” to “Percent.”

Writing Prompts. Answer the following questions:

1. When was government spending (as a percent of GDP) at its highest value? What domestic/global event took place during that time? Briefly describe the economic role of the government during that time.
2. When was private capital formation (as a percentage of GDP) at its lowest value? What domestic/global event took place during that time? Briefly describe the economic role of private enterprises during that time.
3. When were net exports of goods and services (as a percentage of GDP) at their largest value? At that time, which were larger in value: exports or imports?
4. Notice that the stacked percent graph of GDP component does not always add up to 100 percent. Briefly explain how negative net export values are shown in this graph.