Handout for April 2022 Newsletter The Economics of Oil Prices in FRED®

Purpose.

- 1. Create a plot of personal consumption expenditures: chain-type price index.
- 2. Add a data series and customize the units.
- 3. Describe and discuss patterns in the evolution of inflation over time.

Pedagogical Rationale. This assignment requires that you first look for data and plot them into a graph. Next, you will add data series to the graph. Lastly, you will describe and discuss patterns in the evolution of the data series. These tasks will develop your proficiency in searching for, transforming, and interpreting data.

Grading. Your grade will be determined by (a) how precisely you complete the data search and graph editing tasks and (b) how accurately you interpret the data.

Steps to Search for and Transform the Data.

- 1. Access https://fred.stlouisfed.org/ and search for "Personal Consumption Expenditures: Chain-type Price Index."
- 2. Select "Index 2012=100, Monthly, Seasonally Adjusted."
- 3. Click on EDIT GRAPH and select ADD LINE.
- 4. Search for "Personal Consumption Expenditures Excluding Food and Energy (Chain-Type Price Index), Index 2012=100, Monthly, Seasonally Adjusted." and click on "Add data series."
- 5. Click on EDIT LINE 1.
- 6. Change the units to "Percent Change from Year Ago." Click on "Copy to all."
- 7. Click on ADD LINE.
- 8. Click on "Create user-defined line?" and then click on "Create line."
- 9. Enter "2" in the boxes next to "Value start/end:"
- 10. Enter "2012-01-01" and "2022-01-01" in the boxes next to "Date start/end:"

Writing Prompts. Answer the following questions:

- 1. Consider the following lines in the graph: The dashed black line represents the 2% PCEPI inflation target adopted by the Federal Open Market Committee since January 2012; the blue line represents the price index for all personal consumption expenditures inflation rate, and the red line represents the personal consumption expenditures excluding food and energy inflation rate. Which inflation rate changes in value more frequently and by larger amounts?
- 2. Compare both inflation rates to the 2% target between January 2012 and January 2022. Was personal consumption expenditures price index inflation generally above, below, or equal to that target?
- 3. Consider the personal consumption expenditures price index inflation rates during the oil price shocks of 1973-74 and 1978-79. How did energy prices impact overall inflation?