**Larry Malone malonel@hartwick.edu**

**TITLE**: The Volatility of Gross Private Domestic Investment Spending

**STUDENT LEARNING OUTCOME:**

At the completion of this AE, students will be able to identify the volatility of Gross Private Domestic Investment Spending (I) in the Real GDP compared to the relative stability of Real Personal Consumption Spending (C)

**TEXT:**

You are a summer intern at the Bureau of Economic Analysis (B.E.A.), in Washington, DC. A fellow intern from another university says her macroeconomics professor taught that Gross Private Domestic Investment spending was the most volatile component in the equation where Real GDP = C + I + G + (X – M). Her professor also claimed that it could take *years for the economy to recover* from a severe decline in the level of Gross Private Investment Spending.

You decide to consult the data to investigate the volatility of Gross Private Domestic Investment spending and whether it can take years to recover from a severe decline in this form of spending. After you investigate, you conclude that:

1. Since 1998, the level of Gross Private Domestic Investment spending SOMETIMES took *more than two years* to recover to its previous level after a quarterly decline.
2. Since 1998, the level of Gross Private Domestic Investment spending NEVER declined in a single quarter.
3. Since 1998, the level of Gross Private Domestic Investment spending ALWAYS recovered to its previous level *within one year* after a quarterly decline.
4. Since 1998, the level of Gross Private Domestic Investment spending NEVER recovered to its previous level *within one year* after a quarterly decline.

**RESOURCES:**

Watch the Kahn Academy video “Investment and Consumption”

<https://www.khanacademy.org/economics-finance-domain/macroeconomics/gdp-topic/modal/v/investment-and-consumption>

Read OpenStax, Chapter 6: “The Macroeconomic Perspective,” Chapter Introduction and Section 6.1 *Measuring the Size of the Economy*. Download for free at <https://openstax.org/details/books/principles-macroeconomics-2e>.

**PREP ASSIGNMENT** (may be submitted in advance):

Instructions for accessing and manipulating FRED data are found in “10 FRED Activities in 10 Minutes,” Mark Bayles, Federal Reserve Bank of St. Louis, 2016. <https://www.stlouisfed.org/~/media/Education/Lessons/pdf/10-FRED-Activities-in-10-Minutes.pdf?la=en>

Access the FRED chart of data for Gross Private Domestic Investment (GPDI)

<https://fred.stlouisfed.org/series/GPDI>

Add a line for Real Personal Consumption Expenditures (PCEC96) <https://fred.stlouisfed.org/series/PCEC96>

Reformulate the chart from 1998 to the present.

Save the completed chart for future reference.

**FACILITATION NOTES:**

Instructor can elect to lead students through the process of creating the appropriate FRED chart, or have students perform that to submit as a prep exercise.

Considering quarterly observations of data from 1998 to the present, students can be encouraged to investigate how changes in Gross Private Domestic Investment are correlated (or not) with changes in Real Personal Consumption spending.

Students should also be encouraged to note how the volatility in I spending is correlated with changes in the expansion and contraction of real GDP.

Suggested Debriefing Discussion Questions:

What factors contribute to the volatility in Gross Private Domestic Investment spending?

Why are changes in Personal Consumption spending less volatile?

How does the relative stability in changes over time in the level of Personal Consumption support the macroeconomic model for the Consumption Function?

What is the relationship between changes in Gross Private Domestic Investment spending and the expansion or contraction of growth in the American economy?

Why does it take so long for the level of Gross Private Domestic Investment spending to recover after a recession?

Are changes in the level of Gross Private Domestic Investment spending a leading indicator of whether the growth of the American economy is changing from a period of expansion to one of contraction?

With regard to influencing the behavior of producers, what other factors might contribute to broad changes in willingness to undertake new investments in their businesses?