

Week 8 Recitation

This week, we are going to talk about the relationship between inflation and unemployment, so we are going to study the Phillip's curve. We will start understanding the theory behind the Phillips Curve, and then move on to some real world data for the United States, exploring both the short-term and the long-term trends.

- 1) Draw the typical AD/AS model, identifying the Keynesian zone, the intermediate zone and the neoclassical zone. Your graph should clearly show: the label of the X-axis, the label of the Y-axis, the LRAS curve, the SRAS, and three demand curves—one for the Keynesian zone (AD_K), one for the intermediate zone (AD_I), and one for the neoclassical zone (AD_N). How can we see the relationship between inflation and unemployment in this model?
- 2) From the AD/AS model above, derive the Keynesian and the neoclassical Phillips Curve. Your graph should clearly show: the label of the X-axis, the label of the Y-axis, the neoclassical Phillips Curve and the Keynesian Phillips Curve.
- 3) What policy prescriptions are implied by the Neoclassical perspective? What about the Keynesian perspective? Can an economist believe in both perspectives?
- 4) The speed of adjustment is how long the economy takes to adjust its prices and return to potential GDP after a demand shock. What are the two theories that describe how long this process will take?
- 5) Now let's see how well this model can describe the US economy. Go to the Federal Reserve Economic Data ([FRED](#)) and follow the following steps:

Step 1: Type "inflation consumer prices" in the search box and select the first series available ("Inflation, consumer prices for the United States"). Select this series—a graph will open.

Step 2: At the upper right corner of the graph, click on "Edit Graph" and, under the tab "Add Line", look for "unemployment rate". Choose the "Unemployment Rate" variable and check that the Frequency is Annual for both of your series (under the "Edit Lines" tab).

Step 3: Download the Excel file of this series and open it either on Excel or Google Sheets. Rename the columns as "Inflation" and "Unemployment".

Step 4: Build a dispersion graph (scatter plot) for the United States economy from 1960 to 1969, using the unemployment rate and the inflation rate on the appropriate axis so that your graph is a Phillips Curve.

How does this Phillips Curve look like? Is it closer to the Keynesian curve, the neoclassical curve or none of them?

- 6) Now, using the same data, plot the Phillips curve for the whole series (1960-2020). What does the graph look like? Is it closer to the Keynesian curve, the neoclassical curve or none of them?
- 7) Now try plotting the data by the following years: 1970-73, 1974-83, 1984-94, and 1995-2020. What do these plots tell us about the Phillips curve?