

The Adjustment Process

ECON 3133

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Problems

1. According to the equation $\pi = 0.6 \times \pi_{-1} + f \times \frac{(Y_{-1} - Y^*)}{Y^*}$, is inflation a predetermined variable? Explain.
2. Suppose that there is a sudden and permanent decline in potential GDP, describe the behavior of prices, output, interest rates, consumption, investment, and net exports.
3. The Phillips curve originally described a relationship between inflation and unemployment. In this problem we look at some of the properties of the Phillips curve.
 - a. Use Okun's law and the Phillips curve to derive a relationship between inflation and unemployment. Is inflation related to the current period value or last period's value of unemployment? Sketch a graph of this relationship with inflation on the vertical axis and unemployment on the horizontal axis.
 - b. How would a change in Y^* shift the curve? How about a change in U^* ?
 - c. How would a change in π^e shift the curve?
 - d. In view of your answers to Parts b and c, how might the Phillips curve have actually shifted in the 1970s and again in the 1980s? Explain.
4. When thinking about the adjustment process, remember that underlying the aggregate demand curve are the IS and LM curves.
 - a. During the adjustment process, is it the IS or LM curve that moves? Why does it move?
 - b. Assume that the economy is initially in equilibrium and then the IS curve is shifted out. Using the IS and LM graphs, show the adjustment process for the case when the economy returns directly to equilibrium.
 - c. Repeat Part b for the case where the LM curve is initially shifted out.