Homework #14

modifications of problems #1, 2, 7 and 9 from Ch. 21, p. 498 of Mankiw *Principles...*(2nd ed.)

1. Recall the linear version of the short-run Phillips Curve that we examined in Lecture 14:

$$u = u^n + \beta \cdot \left(\pi^e - \pi\right) + \varepsilon$$

Suppose that the natural rate of unemployment is 6 percent, i.e. $u^n = 6$, and that there are no supply shocks, i.e. $\varepsilon = 0$, so that we can express the short-run Phillips Curve by the very simple equation:

$$u = 6 + \left(\pi^e - \pi\right)$$

On one graph, draw the long-run Phillips Curve and two short-run Phillips Curves that can be used to describe the three situations listed below. Label the point that shows the position of the economy in each case.

a. Actual inflation is **5** percent and expected inflation is **3** percent.

b. Actual inflation is **3** percent and expected inflation is **5** percent.

c. Actual inflation is **5** percent and expected inflation is **5** percent.

2. Illustrate the effects of the following developments on both the short-run and long-run Phillips Curves. Give the economic reasoning underlying your answers.

a. an increase in the natural rate of unemployment

b. a decrease in the price of imported oil

c. an increase in government spending

d. a decrease in expected inflation

7. Suppose that the Federal Reserve announced that it would pursue contractionary monetary policy in order to reduce the inflation rate. Would the following conditions make the ensuing recession more or less severe? Explain.

a. Wage contracts have short durations.

b. There is little confidence in the Fed's determination to reduce inflation.

c. Expectations of inflation adjust quickly to actual inflation.

9. Imagine an economy in which all wages are set in three-year contracts. In this economy, the central bank announces a disinflationary change in monetary policy that will begin immediately. Everyone in the economy believes that the central bank is determined to reduce the inflation rate. Would this disinflation be costless? Why or why not? What might the central bank do to reduce the cost of the disinflation?