HOMEWORK #9

This homework assignment is due at the beginning of lecture on Wednesday, April 20.

1. Do analytical problem #2 on p. 563 in Chapter 14 of the textbook. When answering the questions, use the Keynesian model with sticky prices and a rigid real wage. For each part, show how the various curves shift in both an IS-LM diagram and an AS-AD diagram. (Optional question: How do your answers change, if at all, if you use the missperceptions version of the classical model rather than the Keynesian model?)

2. In the game between firms and the Fed described in Figure 14.9(b) on p. 552 in Chapter 14 of the textbook, suppose that the Fed assigns 0 points, rather than 1 point, to an unemployment rate of 3%. (The points it assigns to the other values of the unemployment rate remain the same.) What is the (Nash) equilibrium of the game? Does the Fed suffer from credibility problems in this case? (Assume that when the Fed is indifferent between two actions it chooses the action that makes the firms better off.)

3. Do problem #3 in the section on “Working with Macroeconomic Data” on p. 564 in Chapter 14 of the textbook. The three-month Treasury bill rate can be found at: http://research.stlouisfed.org/fred2/series/TB3MS/116/Max. Use the unemployment rate data that you studied in the first problem on Homework #5 and in the fourth problem on Homework #7. (Hint: How do changes in the money supply affect the interest rate and the level of output in the short run in the Keynesian model?)

4. Do numerical problem #8 on p. 599 in Chapter 15 of the textbook. To find the inflation rate that maximizes seignorage, use calculus rather than drawing a graph. That is, express real seignorage revenue as a function of the inflation rate $\pi$, take the derivative of seignorage with respect to $\pi$, set the derivative equal to 0, and solve for the optimal value of $\pi$. 