Question 1:
Using appropriate diagrams, show why and how the exchange rate sometimes overshoots (or undershoots). You must clarify what kind of assumption(s) we have to make. Argue the movements of the variables for both the short- and long-terms if necessary. Just showing diagrams with arrows does not lead to the full point. Discuss what you draw in the diagrams.

Question 2:
A group of macroeconomists (called the “new classical macroeconomists”) believe in perfect flexibility in both nominal wages and prices. They also assume that agents (i.e., “people”) form rational expectations. There is another group of people, called New Keynesians, who believe that wages and prices can be rigid for some time period though they also believe in the rational expectations. Using the AS-AD diagram, show how they differ in terms of the effect of macroeconomic policies on the aggregate output. When drawing diagrams, label the graphs properly and discuss the movement carefully. Make sure you present assumptions for this model.

Question 3:
Graph 1 demonstrates an equilibrium where the money supply is $400 million, the U.S. price level is equal to 100, the U.S. interest rate is 7%, and the U.S. dollar/U.K. pound exchange rate equals its long-run expected level of 2. Not shown in the graph is the U.K. price level, which is equal to 50.
a. Demonstrate the immediate effect of a temporary decrease in the money supply to $300 in Graph 1. Discuss the immediate effect on the nominal and real exchange rates.

b. Now suppose instead that the decrease in the money supply to $300 million is permanent rather than temporary. How does the immediate effect of this permanent change differ from the immediate effect of the temporary change discussed in your answer to part (a)?

c. What is the long-run value of the U.S. price level, the U.S. interest rate, and the dollar/pound exchange rate in response to the permanent decrease in the U.S. money supply to $300 million?

d. Continuing with your analysis of the effects of a permanent decrease in the money supply, show what happens in Graph 1 over time. Use the information you obtain in your analysis to fill in the time Graphs 3 and 4 when the money supply follows the permanent change shown in the time Graph 2.
Question 4:

In Chapter 15, we learned that a rise in the domestic interest rate leads to the appreciation of the domestic currency while in Chapter 16, we learned that the domestic currency depreciates in such a case. Discuss and reconcile the differences between these two predictions. What kind of assumption(s) do we make in each case? Make sure that you spell out all assumptions, conditions, and movements clearly. In the case that the currency depreciates after a rise in the interest rate, what does the currency depreciation reflect?

<Graduate students only>

Question 5:

Problem 9 in Ch. 15. Assume that there is change in the expected exchange rate.

In our discussion of short-run exchange rate overshooting, we assumed real output was given. Assume instead that an increase in the money supply raises real output in the short run. How does this affect the extent to which the exchange rate overshoots when the money supply first increases? Is it likely that the exchange rate undershoots? (Hint: In Figure 15-12a, allow the aggregate real money demand schedule to shift in response to the increase in output.)