This problem set covers the material in section III of the course.

1. In his February 13, 2001 testimony to Congress --
   http://www.federalreserve.gov/boarddocs/hh/2001/February/Testimony2.htm -- Chairman of the
   Federal Reserve Alan Greenspan stated that “changes in consumer confidence will require close
   scrutiny in the period ahead, especially after the steep falloff of recent months.”
   a. Suppose the economy is currently operating at full-employment. Using the Keynesian cross
      and IS-LM diagrams, show this situation.
   b. Now, further suppose that consumer confidence has dropped. Using the Keynesian cross
      and IS-LM diagrams, show what happens to the equilibrium interest rate ($r$) and real GDP
      ($Y$) in the short-run.
   c. Explain intuitively (not through the IS-LM graph) why an autonomous reduction in
      consumption spending leads to the respective changes in $r$ and $Y$. You may use the diagrams
      of the money market and the goods market to aid in your discussion.
   d. As a result of these changes in $r$ and $Y$, what happens to real consumption ($C$), real
      investment ($I$), real government spending ($G$) and the federal budget surplus in the short-run?
   e. If the Federal Reserve chooses not to respond to this negative shock, show what would
      happen to the price level ($P$) and real GDP ($Y$) in the long-run. You may use either the AD-
      AS or the IS-LM diagram.
   f. If the Federal Reserve chooses to respond to this negative shock, what type of open market
      operation would they conduct? Explain why. Using the money and bond market diagrams,
      show the effect of this operation on the interest rate ($r$) and bond prices ($P_b$).
   g. If the Federal Reserve chooses to respond to this negative shock, show the short-run effect
      of this policy using the IS-LM diagram. Could the U.S. Congress accomplish the same
      thing? Explain briefly.
   h. What is the potential problem of undertaking the policy describing in part f? Explain briefly.
2. Suppose that the U.S. economy is a small open economy and that consumer confidence has indeed dropped. Using the Mundell-Fleming model of chapter 12, answer the following:

a. If the U.S. is under a floating exchange rate regime, show what happens to the equilibrium exchange rate \(e\) and real GDP \(Y\) in the short-run. Why does real GDP stay the same in this example? Explain briefly.

b. If the U.S. is under a fixed exchange rate regime, show what happens to the equilibrium exchange rate \(e\) and real GDP \(Y\) in the short-run. Why does real GDP decrease in this example? Explain briefly.

c. If the majority of economic shocks are spending shocks (i.e. shifts in the IS curve), which exchange rate regime would more preferred in keeping real GDP \(Y\) equal to potential GDP \(\bar{Y}\)? Explain briefly.

d. If the majority of economic shocks are financial market shocks (i.e. shifts in the LM curve), which exchange rate regime would more preferred in keeping real GDP \(Y\) equal to potential GDP \(\bar{Y}\)? Explain briefly.

e. Besides the issues raised in parts c and d, what other arguments can be made for a fixed vs. floating exchange rate regime?

3. Using the quantity theory of money, explain why monetary policy has an impact on real GDP \(Y\) and thus employment \(N\) in the short-run IS-LM model, but not in the long-run static model. Think about what is different in the short-run vs. the long-run.

4. Suppose the Senate Finance Committee is holding hearings on the ability of the Federal Reserve to lower unemployment below the current rate. Explain briefly how the following economists would testify on the ability of Congress to lower unemployment. In your answer for each, make sure to include (i) what type of monetary policy can affect employment, (ii) the mechanism through which monetary policy affects employment, and (iii) predictions of the Phillips curve.

a. N. Gregory Mankiw of sticky-wage model fame

b. Milton Friedman of worker-misperception model fame

c. Robert Lucas of imperfect-information model fame