14.02 Introduction to Macroeconomics
Problem Set # 8

1) Is the following statement true, false or uncertain? Explain. "The increase in the US current account deficit during the 1980s could not have happened if the Federal Government had run a budget surplus"

2) Graph the relation between i and E for given foreign interest rate and expected future exchange rate that is implied by interest rate parity theory. Explain the economic intuition behind its slope.

For the next four questions assume that the exchange rate is freely floating i.e. set by the international financial markets.

3) Show on the IS-LM diagram, the effect of an increase in taxes on output and the interest rate. Explain the effect of this government policy on the nominal exchange rate and on the real exchange rate. Can we say what happens to the components of aggregate demand: C, I, and NX?

4) Show on the IS-LM diagram the effect of a decrease in the money supply on output and the interest rate. Explain the effect of this government policy on the nominal exchange rate and on the real exchange rate.

5) Show on the IS-LM diagram, the effect of a decrease in the foreign interest rate on output and the interest rate. Explain the effect of this government policy on the nominal exchange rate and on the real exchange rate.

6) Show on the **AS-AD** diagram, the effect of an increase in taxes on output, in the short run and the long run. Explain the effect of this government policy on the nominal exchange rate and on the real exchange rate in the short run and the long run. What is the effect on net exports in the short run and in the long run?

Now assume that there is a "fixed" exchange rate i.e. the nominal exchange rate is set by the government and not by international financial markets

7) Show on the IS-LM diagram, the effect of an increase in taxes on output and the interest rate. Can we say what happens to the components of aggregate demand: C, I, and NX? Can we say whether the effect of the tax increase on output is greater in this case or in the case of floating exchange rates in question 3.

8) Now assume that the government devalues the home currency i.e. it chooses to fix the nominal exchange rate at a new level, where it is worth less in terms of other currencies. Show the effect of this on output and the interest rate using the IS-LM diagram. Can we say what happens to the components of aggregate demand: C, I, and NX?