International Finance
Problem set 2
City University
Spring 2007

The Mundell Fleming Model

This is an ISLM model applied to a small open economy, in the short run.
The model consists of three main equations:

- First, the IS curve:

$$Y = c(Y-T) + I(r) + G + NX(e)$$

This equation describes the goods market. It states that aggregate income Y is the sum of consumption (C= c(Y-T)), investment, government spending and net exports.
We define the exchange rate e as the amount of foreign currency per unit of domestic currency. Here, we do not distinguish between real and nominal exchange rate, and simply state that NX(e) is decreasing in e (In fact, NX should be related to the real exchange rate E, but since we are in the short run, prices are fixed, so that changes in E are proportional to changes in e).

- Second, the LM curve, which describes the money market:

$$M/P = L(r, Y)$$

It states that the supply of real money balances (M/P) equals the demand for real money balances L(r, Y). L( ) depends negatively on the interest rate r and positively on income Y. In this model, the price level P is an exogenous variable (short run).

- Third, because of perfect capital mobility and the fact that we are studying a small open economy, the domestic interest rate, r, must equal the world interest rate r* in equilibrium.

$$r = r^*$$

Make sure you understand these equations and answer the following questions.

Question 1: On a graph with r on the vertical axis and Y on the horizontal axis, plot the IS and LM curves. What happens to IS if government spending increases? What happens to LM if the central bank increases the money supply?

Question 2: Throughout this question, we are in the case of a FLOATING exchange rate regime.

a) On a graph with r on the vertical axis and Y on the horizontal axis, plot the IS and LM curves. Now, add the r = r* curve SO THAT your graph represents an EQUILIBRIUM in the small open economy.

b) Now, starting from this equilibrium, assume the government decides to increase public spending, hoping to increase Y. Will this work and why? Explain in words and by showing what happens on a graph.
What policy would you recommend for the equilibrium Y increase?

c) Again, start from the equilibrium in question a). Assume the government engages in a protectionist policy, by restricting imports. Explain what happens and show it on a graph.

Question 3) For this question, we assume a FIXED exchange rate regime.

a) On a graph with r on the vertical axis and Y on the horizontal axis, plot the IS and LM curves. Now, add the r = r* curve SO THAT your graph represents an EQUILIBRIUM in the small open economy.

b) Now, starting from this equilibrium, assume the government decides to increase public spending, hoping to increase Y. Will this work and why? Explain in words and by showing what happens on a graph. (don't forget the role of the central bank in a fixed exchange rate regime)

c) Again, start from the equilibrium in question a). Assume the government decides to subsidise the country's exports. Explain what happens and show it on a graph.