Homework 5

Chapter 12

1 and 2 of Problems and Applications

The homework should be put in your TA's mailbox before 2pm of September 27.

3. In the Mundell–Fleming model with floating exchange rates, explain what happens to aggregate income, the exchange rate, and the trade balance when a quota on imported cars is removed. What would happen if exchange rates were fixed rather than floating?

4. What are the advantages of floating exchange rates and fixed exchange rates?

5. Describe the impossible trinity.

PROBLEMS AND APPLICATIONS

1. Use the Mundell–Fleming model to predict what would happen to aggregate income, the exchange rate, and the trade balance under both floating and fixed exchange rates in response to each of the following shocks.

   a. A fall in consumer confidence about the future induces consumers to spend less and save more.

   b. The introduction of a stylish line of Toyotas makes some consumers prefer foreign cars over domestic cars.

   c. The introduction of automatic teller machines reduces the demand for money.

2. A small open economy with a floating exchange rate is in recession with balanced trade. If policymakers want to reach full employment while maintaining balanced trade, what combination of monetary and fiscal policy should they choose?

3. The Mundell–Fleming model takes the world interest rate r^* as an exogenous variable. Let's consider what happens when this variable changes.

   a. What might cause the world interest rate to rise?

   b. In the Mundell–Fleming model with a floating exchange rate, what happens to aggregate income, the exchange rate, and the trade balance when the world interest rate rises?

   c. In the Mundell–Fleming model with a fixed exchange rate, what happens to aggregate income, the exchange rate, and the trade balance when the world interest rate rises?

4. Business executives and policymakers are often concerned about the competitiveness of American industry (the ability of U.S. industries to sell their goods profitably in world markets).

   a. How would a change in the nominal exchange rate affect competitiveness in the short run when prices are sticky?

   b. Suppose you wanted to make domestic industries more competitive but did not want to alter aggregate income. According to the Mundell–Fleming model, what combination of monetary and fiscal policies should you pursue?

5. Suppose that higher income implies higher imports and thus lower net exports. That is, the net exports function is

$$NX = NX(e,\ Y).$$

   Examine the effects in a small open economy of a fiscal expansion on income and the trade balance under the following.

   a. A floating exchange rate.

   b. A fixed exchange rate.

   How does your answer compare to the results in Table 12-1?

6. Suppose that money demand depends on disposable income, so that the equation for the money market becomes

$$M/P = L(r,\ Y - T).$$

   Analyze the impact of a tax cut in a small open economy on the exchange rate and income under both floating and fixed exchange rates.

7. Suppose that the price level relevant for money demand includes the price of imported goods and that the price of imported goods depends on the exchange rate. That is, the money market is described by

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

   where

$$P = \lambda P_d + (1 - \lambda)P_f/e.$$

   The parameter λ is the share of domestic goods in the price index P. Assume that the price of