Homework 2

Chapter 5

1, 2 of Problems and Applications

The homework should be put in your TA’s mailbox before 2pm of next Monday.

QUESTIONS FOR REVIEW

1. What are the net capital outflow and the trade balance? Explain how they are related.
2. Define the nominal exchange rate and the real exchange rate.
3. If a small open economy cuts defense spending, what happens to saving, investment, the trade balance, the interest rate, and the exchange rate?
4. If a small open economy bans the import of Japanese DVD players, what happens to saving, investment, the trade balance, the interest rate, and the exchange rate?
5. If Japan has low inflation and Mexico has high inflation, what will happen to the exchange rate between the Japanese yen and the Mexican peso?

PROBLEMS AND APPLICATIONS

1. Use the model of the small open economy to predict what would happen to the trade balance, the real exchange rate, and the nominal exchange rate in response to each of the following events.
   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. Consider an economy described by the following equations:

$$Y = C + I + G + NX,$$
$$Y = 5{,}000,$$
$$G = 1{,}000,$$
$$T = 1{,}000,$$
$$C = 250 + 0.75(Y - T),$$
$$I = 1{,}000 - 50r,$$
$$NX = 500 - 500\epsilon,$$
$$r = r^* = 5.$$

   a. In this economy, solve for national saving, investment, the trade balance, and the equilibrium exchange rate.
   b. Suppose now that G rises to 1,250. Solve for national saving, investment, the trade balance, and the equilibrium exchange rate. Explain what you find.
   c. Now suppose that the world interest rate rises from 5 to 10 percent. (G is again 1,000.) Solve for national saving, investment, the trade balance, and the equilibrium exchange rate. Explain what you find.
3. The country of Leverett is a small open economy. Suddenly, a change in world fashions makes the exports of Leverett unpopular.
   a. What happens in Leverett to saving, investment, net exports, the interest rate, and the exchange rate?
   b. The citizens of Leverett like to travel abroad. How will this change in the exchange rate affect them?
   c. The fiscal policymakers of Leverett want to adjust taxes to maintain the exchange rate at its previous level. What should they do? If they do this, what are the overall effects on saving, investment, net exports, and the interest rate?
4. In 2005, Federal Reserve Governor Ben Bernanke said in a speech: "Over the past decade a combination of diverse forces has created a significant increase in the global supply of saving—a global saving glut—which helps to explain both the increase in the U.S. current account deficit [a broad measure of the trade deficit] and the relatively low level of long-term real interest rates in the world today." Is this statement consistent with the models you have learned? Explain.
5. What will happen to the trade balance and the real exchange rate of a small open economy when government purchases increase, such as during a war? Does your answer depend on whether this is a local war or a world war?