Problem Set #5

Due Tuesday, April 29, 2008

Problem Sets MUST be word-processed except for graphs and equations.

When drawing diagrams, the following rules apply:

1. Completely, clearly and accurately label all axes, lines, curves, and equilibrium points.

2. The original diagram and any equilibrium points MUST be drawn in black or pencil.

3. The first change in any variable, curve, or line and any new equilibrium points MUST be drawn in red.

4. The second change in any variable, curve, or line and any new equilibrium points MUST be drawn in blue.

5. The third change in any variable, curve, or line and any new equilibrium points MUST be drawn in green.
QUESTIONS

A. Multiple Choice Questions. Circle the letter corresponding to the best answer. (1 points each.)

1. Which of the following would be part of the nation’s capital and financial account?
   a. A night club show seen by an American in Mexico City.
   b. A dividend from a British equity owned by an American.
   c. A payment to the Philippine government for the use of military bases in their country.
   d. One hundred shares of British Petroleum stock purchased by an American.

2. A small open economy increases its investment demand. This causes the world real interest rate to ______ and the country’s current account balance to ______.
   a. Rise; fall.
   b. Remain unchanged; rise.
   c. Rise; rise.
   d. Remain unchanged; fall.

3. A large open economy reduces its investment demand. This causes the world real interest rate to ______ and the country’s current account balance to ______.
   a. Rise; fall.
   b. Rise; rise.
   c. Fall; rise.
   d. Fall; fall.

4. Assume that an increase in Costa Rica’s government budget deficit reduced desired national saving by 10 million colon (the Costa Rican currency). Assuming Costa Rica is a small open economy, you would expect the government’s action to:
   a. Increase the current account balance by exactly 10 million colon.
   b. Increase the current account balance by less than 10 million colon.
   c. Reduce the current account balance by exactly 10 million colon.
   d. Reduce the current account balance by more than 10 million colon.

5. From 1980 to 2000, the yen/dollar exchange rate fell from 240 yen/dollar to 102 yen/dollar, while the dollar pound exchange rate fell from 2.22 dollars/pound to 1.62 dollars/pound. As a result,
   a. The dollar appreciated relative to the yen but depreciated relative to the pound.
   b. The dollar depreciated relative to the yen but appreciated relative to the pound.
   c. The dollar appreciated relative to both the yen and the pound.
   d. The dollar depreciated relative to both the yen and the pound.
6. If the real exchange rate raised 2%, domestic inflation is 3%, and foreign inflation is 1%, what is the percent change in the nominal exchange rate?

   a. 6%.
   b. 4%.
   c. 2%.
   d. 0%.

7. There has been a real depreciation of the dollar over the past month. In the long-run, you would expect the quantity of:

   a. American imports to fall and the quantity of American exports to fall.
   b. American imports to rise and the quantity of American exports to rise.
   c. American imports to fall and the quantity of American exports to rise.
   d. American imports to rise and the quantity of American exports to fall.

8. An increase in domestic output would cause a _______ in net exports and a _______ in the exchange rate.

   a. Rise; rise.
   b. Rise; fall.
   c. Fall; rise.
   d. Fall; fall.

9. A decrease in the foreign real interest rate would cause the domestic country’s net exports to _______ and cause the domestic country’s IS curve to _______.

   a. Rise; shift to the right.
   b. Rise; shift to the left.
   c. Fall; shift to the right.
   d. Fall; shift to the left.

10. If a country has an overvaluation problem, the best solution is to:

    a. Increase the official rate.
    b. Buy less of its currency in the foreign exchange market.
    c. Sell more of its currency in the foreign exchange market.
    d. Decrease the money supply.
B. Answer BOTH of the following questions. (10 points each.)

1. **S\textsuperscript{d} – I\textsuperscript{d} Open Economy Model.** Suppose that the world economy is composed of only two large, open-economy countries—the United States and China—and that the U.S. is running a substantial current account deficit.

   Because of xenophobic fears, the Chinese government then imposes strict capital controls that prevent Chinese residents and institutions from either borrowing or lending abroad.

   a. Based only on this information, use a 2-country S\textsuperscript{d} – I\textsuperscript{d} Open Economy diagram to accurately and clearly show:

      1. The initial equilibrium situation in both countries (in black),

      2. The short-run effects on national saving, desired investment, the current account balance, and real interest rates in both the U.S. and China from this policy change (in red),

   b. Provide a brief economic explanation for the changes you showed in your diagrams above. Be sure to compare the current account balances and real interest rates between the initial and final short-term equilibrium situations for both countries.

2. **Open Economy IS-LM Model with the Foreign Exchange Market.** France and Germany are major trading partners with flexible exchange rates. Because Germany is experiencing accelerating inflation, the Bundesbank (Germany’s central bank), engages in a contractionary monetary policy.

   a. Based only on this information, use a 2-country, open economy IS-LM model with an Foreign Exchange Market diagram to accurately and clearly show:

      1. The initial general equilibrium situation in both countries (in black),

      2. The short-run effects on economic output, the real interest rate, and the nominal and real exchange rates in both France and Germany from the Bundesbank’s monetary contraction (in red),

   b. Provide a brief economic explanation for the changes you showed in your diagram above. Be sure to compare the level of economic output, the real interest rate, and the nominal and real exchange rates between the initial and short-run equilibrium situation in both countries.

Now suppose that instead of having had flexible exchange rates, France had fixed its exchange rate with Germany at its fundamental value, a level that France is committed to maintaining.

   c. Based only on this information, use a 2-country, open economy IS-LM model with an Foreign Exchange Market diagram to accurately and clearly show:

      1. The initial general equilibrium situation in both countries (in black),

      2. The short-run effects on economic output, the real interest rate, and the nominal and real exchange rates in both France and Germany from the Bundesbank’s monetary contraction (in red),

   d. Provide a brief economic explanation for the changes you showed in your diagram above. Be sure to discuss how France must respond to Germany’s monetary contraction to maintain the fixed exchange rate. Also discuss what happens to France’s economic output, real interest rate, real exchange rates, and net exports in the short run assuming that France is successful in maintaining the fixed exchange rate at its initial fundamental value.