Lecture 15 - Recommended Problems

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☆☆ Chapter 19, Problem 2

Consider an open economy with flexible exchange rates. Suppose output is at the natural level, but there is a trade deficit. The goal of policy is to reduce the trade deficit and leave the level of output at its natural level. What is the appropriate fiscal and monetary policy mix?

☆☆ Chapter 19, Problem 5

Flexible exchange rates and the responses to changes in foreign macroeconomic policy. Suppose there is an expansionary fiscal policy in the foreign country that increases Y^* and i^* at the same time.

a. In an IS-LM-UIP diagram, show the effect of the increase in foreign output, Y^*, and the increase in the foreign interest rate, i^*, on domestic output (Y) and the exchange rate (E), when the domestic central bank leaves the policy interest rate unchanged. Explain in words.

b. In an IS-LM-UIP diagram, show the effect of the increase in foreign output, Y^*, and the increase in the foreign interest rate, i^*, on domestic output (Y) and the exchange rate (E), when the domestic central bank matches the increase in the foreign interest rate with an equal increase in the domestic interest rate. Explain in words.

c. In an IS-LM-UIP diagram, show the required domestic monetary policy following the increase in foreign output, Y^*, and the increase in the foreign interest rate, i^*, if the goal of domestic monetary policy is to leave domestic output (Y) unchanged.

☆☆ Chapter 19, Problem 6

Fixed exchange rates and foreign macroeconomic policy. Consider a fixed exchange rate system, in which a group of countries (called follower countries) peg their currencies to the currency of one country (called the leader country). Because the currency of the leader country is not fixed against the currencies of countries outside the fixed exchange rate system, the leader country can conduct monetary policy as it wishes. For this problem, consider the domestic country to be a follower country and the foreign country to be the leader country.

a. How does an increase in interest rates in the leader country affect the interest rate and output in the follower country?

b. How does the increase in leader country interest rates change the composition of output in the follower country? Assume the follower country does not change fiscal policy.

c. Can the follower country use fiscal policy to offset the effects of the leader country's reduction in interest rates and leave domestic output unchanged? When might such a fiscal policy be desirable?

d. Fiscal policy involves changing government spending or changing taxes. Design a fiscal policy mix that leaves consumption and domestic output unchanged when the leader country increases interest rates. What component of output is changed?

☆☆ Chapter 19, Problem 7

The exchange rate as a policy tool. A flexible exchange rate combined with a willingness to change the domestic interest rate can increase the effectiveness of monetary policy in an open economy. Consider an economy that suffers a fall in business confidence (which tends to reduce investment).

a. In an IS-LM-UIP diagram, show the short-run effect of the fall in business confidence on output and the exchange rate when the central bank leaves the interest rate unchanged. How does the composition of output change?

b. The central bank is willing to cut the interest rate to restore the level of output to its original value. How does this change the composition of output?

c. If the exchange rate was fixed and the central bank could not change the interest rate (remember it is fixed at the foreign value i^*) what policy options are left for the central bank?

d. Central banks generally favor flexible exchange rates. Explain why.

☆ Chapter 19, Problem 4

Flexible exchange rates and foreign macroeconomic events. Consider an open economy with flexible exchange rates.

a. In an IS-LM-UIP diagram, show the effect of an increase in foreign output, Y^*, on domestic output (Y) and the exchange rate (E), when the domestic central bank leaves the policy interest rate unchanged. Explain in words.

b. In an IS-LM-UIP diagram, show the effect of an increase in the foreign interest rate, i^*, on domestic output (Y) and the exchange rate (E), when the domestic central bank leaves the policy interest rate unchanged. Explain in words.