

International Macroeconomics

Assignment 4

Due Sep 9th in class

1. In 2001, President George W. Bush and Federal Reserve Chairman Alan Greenspan were both concerned about a sluggish U.S. economy. They also were concerned about the large U.S. current account deficit. To help stimulate the economy, President Bush proposed a tax cut, whereas the Fed had been increasing U.S. money supply. Compare the effects of these two policies in terms of their implications for the current account. If policy makers are concerned about the current account deficit, discuss whether stimulatory fiscal policy or monetary policy makes more sense in this case.

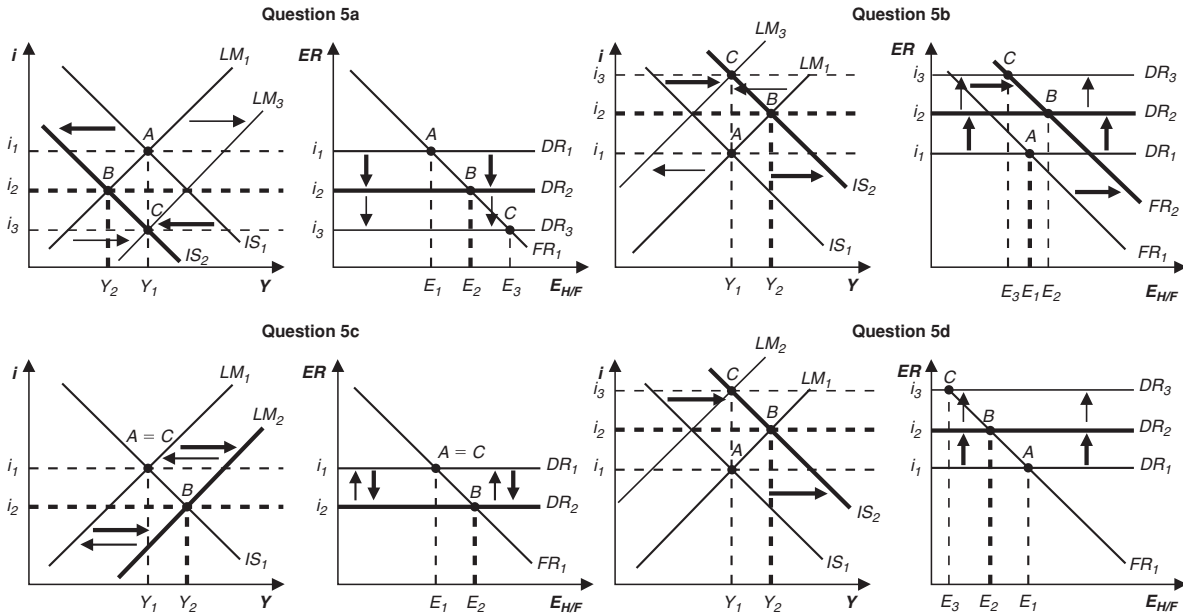
Answer: From the model, we know that fiscal expansion leads to crowding out of investment and external demand because it leads to an appreciation in the home currency. In contrast, a monetary expansion leads to a decrease in the interest rate and a depreciation in the currency, causing an improvement in the current account. Therefore, if policy makers are concerned about reducing the current account deficit and want to expand output, they should use monetary policy. See your lecture notes for a graphical explanation of the different implications on current account.

2. Suppose India is experiencing a recession. Suppose you also know that interest rates in India are falling, the value of the Indian currency is depreciating (rise in rupees/dollar), and the level of the Indian trade balance is falling. According to the open-economy IS-LM model, which of the following three shocks could be causing Indias recession:
 - (a) an exogenous shock raising Indian money demand,
 - (b) exogenous shock lowering investment demand in India,
 - (c) an exogenous shock lowering foreign demand for Indian goods.

(Name all shocks that apply and illustrate with an IS-LM graph.) For any shock you rule out as an explanation, explain what about its implications are inconsistent with the data above. (Assume that the marginal propensity to consume foreign imports is zero, $MPC_F = 0$.)

Answer: An exogenous shock raising Indian money demand shift the LM curve to the left thus implies a higher interest rate. However, we are told that interest rate is falling. An exogenous shock lowering investment demand shift the IS curve to the left thus implies a lower interest rate and a lower output. A falling interest rate depreciates home currency thus improve trade balance. However, we are told that trade balance is falling. Only the third one is consistent with the observations. An exogenous shock lowering foreign demand for Indian goods causes a fall in trade balance which shift IS curve to the left and thus results in a fall in interest rate and a drop in output.

3. For each of the following situations, use the IS-LM-FX model to illustrate the effects of the shock and the policy response. (Note: Assume the government responds by using



- a. Foreign output decreases.

Answer: IS shifts left, LM shifts right to stabilize Y : Y no change, $i \downarrow$, $E \uparrow$, C no change, $I \uparrow$, $TB \uparrow$

- b. Investors expect a depreciation of the Home currency.

Answer: FR shifts right, IS shifts right, LM shifts left to stabilize Y : Y no change, $i \uparrow$, $E \downarrow$, C no change, $I \downarrow$, $TB \downarrow$

- c. The money supply increases.

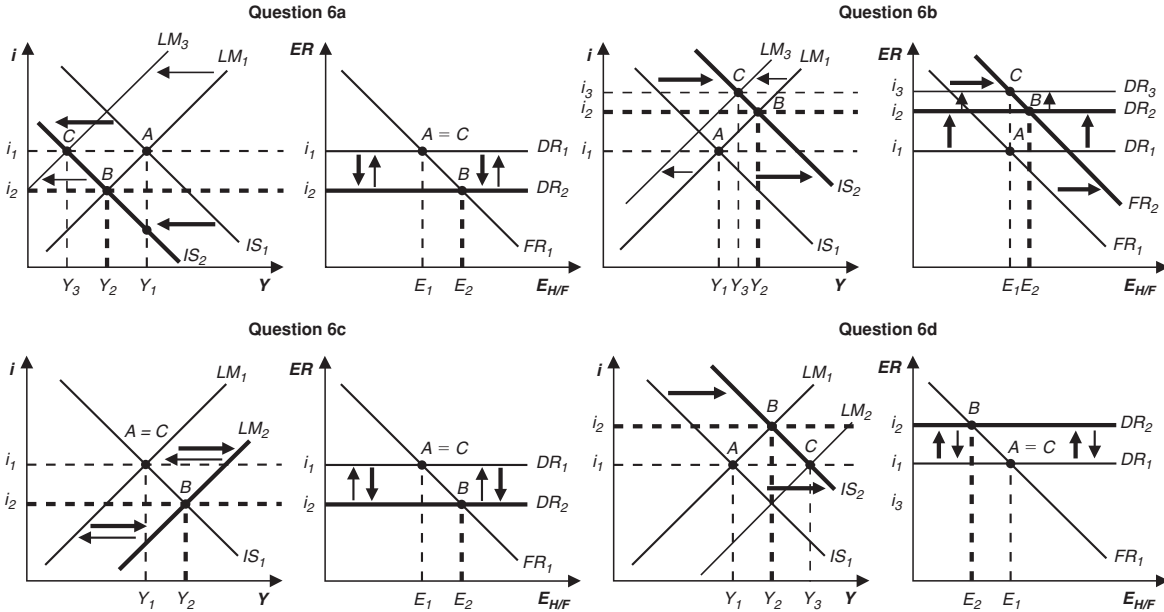
Answer: LM shifts right, then LM shifts left to stabilize Y : No change in Y , i , E , C , I , or TB

- d. Government spending increases.

Answer: IS shifts right, LM shifts left to stabilize Y : Y no change, $i \uparrow$, $E \downarrow$, C no change, $I \downarrow$, $TB \downarrow$

monetary policy to stabilize output.) For each case, state the effect of the shock on the following variables (increase, decrease, no change, or ambiguous): Y , i , E , C , I , TB .

4. Repeat the previous question, assuming the central bank responds in order to maintain a fixed exchange rate. In which case or cases will the government response be the same as in the previous question?



Answer: IS shifts left, LM shifts left to keep E fixed: $Y \downarrow$, i and E no change, $C \downarrow$, I no change, $TB \uparrow$

Answer: FR shifts right, IS shifts right, LM shifts left to keep E fixed: $Y \uparrow$, $i \uparrow$, E no change, $C \uparrow$, $I \downarrow$, $TB \downarrow$

Answer: LM shifts right, then LM shifts left to keep E fixed: No change in Y , i , E , C , I , or TB

Answer: IS shifts right, LM shifts right to keep E fixed: $Y \uparrow$, i and E no change, $C \uparrow$, I no change, $TB \downarrow$