

1. (25%) Consider an open economy like the current U.S., with floating exchange rates:
 - a) Using the AA-DD model with the E-R-M diagram, show the effect of a temporary tax cut combined with an increase in government purchases on output, the exchange rate, and interest rates. Using the XX curve, show the effects on the trade balance.
 - b) Using the AA-DD model with the E-R-M diagram, show the effect of a temporary tightening of the money supply.
 - c) For both (a) and (b) above, compare and contrast the effects of a “permanent” policy with the temporary ones you showed. Explain.
 - d) Combine the two temporary policies in (a) and (b), and explain the overall effect on the exchange rate, output, the budget deficit, and the trade deficit.
 - e) Suppose investors are considering the long-run prospects for this economy, and suddenly decide that the budget and trade deficits make the current exchange rate unsustainable in the long run. Use the AA-DD model to show the effects of this change in expectations on the exchange rate, output, and the trade balance. Assuming the economy is operating near full employment, use the AD-AS model to show how this would affect the overall price level. What other effects might this have that the model does not show?

2. (20%) Consider a small economy, like China, that has unilaterally pegged its currency against that of a large trading partner, and its currency is currently considered undervalued (i.e., it has pegged E above the market-clearing rate).
 - a) What are the advantages and disadvantages of having E pegged too high? Assume the economy is operating well below full employment and the exchange rate is credible. What are the effects of this undervaluation on the balance of payments, the money supply, the trade balance, output, and money demand? How might this undervaluation provide a form of implicit insurance for investors?
 - b) Once the economy reaches full employment, how would the undervalued exchange rate affect the small country’s price level and the real effective exchange rate? Show this on the AD-AS diagram.
 - c) Suppose that the small economy is now pressured by its large trading partner to revalue its nominal exchange rate, so that the official rate for E falls, and the revaluation is one-time and credible. Using the AA-DD model with the E-R-M diagram, explain how this revaluation would affect the balance of payments, the money supply, the trade balance, output, and money demand?
 - d) Using the HH-FF model, explain how this revaluation affects output in both the small economy and the large economy. How else might this affect the large economy that the model does not show?

3. (15%) Consider a different small economy similar to Thailand in 1997 that has unilaterally pegged its currency against that of a large trading partner. Suppose that investors currently notice that the current account deficit is rising and financial inflows are slowing, so they begin to expect that the country's central bank may have to devalue the currency in spite of its protests to the contrary.

- a) Explain how and why speculators could attack the currency, and why this attack has little downside risk.
- b) Use the E-R-M graph and the AA-DD model to explain the effects of the expectation of a future devaluation on the balance of payments, foreign exchange reserves, money supply, and interest rates. If domestic private investment is sensitive to interest rates, what will happen to the economy?
- c) Compare the effects of alternative responses: (i) the central bank is proactive in defending the currency, and wants to ensure that it does not run out of foreign currency reserves, (ii) the central bank is passive in defending the currency, but does not sterilize its foreign exchange transactions, (iii) the central bank sterilizes its foreign exchange transactions, and is unwilling to allow a recession.

4. (40%) Shorter Essay Questions. Answer four of the following five questions (10% each)

- A. What is the trilemma? Explain carefully, and consider the advantages and disadvantages of each alternative.
- B. What is the J-curve? Is it more likely to apply in the short run or the long run? Is it more likely when trade is balanced, in surplus, or in deficit? How might it affect the slope of the DD curve, and the predictions of the AA-DD model?
- C. Under the prewar gold standard, exchange rates were stable but output and price levels were not. Why? Explain.
- D. How did the Bretton Woods system differ from the gold standard? What unique advantage did it offer the United States? What was the Triffin dilemma? When and why did the system end, and what replaced it?
- E. Suppose that the return on assets is primarily affected by events in the money market, and investors seek primarily to diversify their portfolios and hedge against risk. Which exchange rate regime, fixed or floating, would lead to more global capital flows? Explain.

5. Assume that foreign interest rates rise.

- a) How would this change affect our foreign exchange market?
- b) Assume that the increase in foreign interest rates is expected to be temporary and exchange rates float freely. Use the AA-DD model to show how this would affect the foreign exchange rate, the home country's current account balance, and home's aggregate demand. Use the E-R-M graph to explain how this would affect home's interest rates. Would the exchange rate adjustment be gradual, overshoot, or adjust immediately to the long-run equilibrium?
- c) Assume that the increase in foreign interest rates is now expected to be permanent. How would this affect the AA-DD model if the increase in foreign interest rates was the result of real factors? How would your answer be different if the increase was the result of higher foreign inflation rates?
- d) Assume instead the home central bank is committed to maintaining a fixed exchange rate. Explain how the increase in foreign interest rates would affect the balance of payments, and how the central bank response would affect aggregate demand. Use the E-R-M graph to explain how it would affect home's interest rate. Assuming this in turn affects private investment demand for plant and equipment, show the final equilibrium under fixed rates using the AA-DD model.

6. Monetary and Fiscal Policy under Floating and Fixed Rates.

- a) Explain how a temporary increase in the government budget deficit through increased government spending or reduced taxes would affect aggregate demand (i.e., GDP or Y), and explain how this would also affect the price of foreign exchange and the current account balance using the AA-DD model. Use the E-R-M graph to show how the increase in GDP would affect the interest rate.
- b) Explain how an open market purchase of domestic bonds by the central bank would affect the money supply. Assume the policy is temporary, and using both the E-R-M graph and the AA-DD model, explain how this in turn would affect the interest rate, the price of foreign exchange, the current account balance, and aggregate demand.
- c) Assuming the central bank makes no effort to control the exchange rate, how would the effects of a change in monetary policy be different if the policy change was permanent? How would the effects of a fiscal policy be different if it was expected to be temporary?
- d) Assuming the central bank intervenes in the foreign exchange market to keep the exchange rate fixed, how would the effects of a change in monetary policy be different? How would the effects of a change in fiscal policy be different?
- e) Using the AS-AD model with a J-shaped short-run AS curve and a vertical long-run AS, explain how the effectiveness of the above cases depends on how close the economy is to full employment.
- f) People who studied macroeconomics prior to the 1970s were usually taught that fiscal policy was effective in stimulating aggregate demand, but monetary policy was not. By the 1980s, however, the consensus opinion of the profession had reversed. How can international finance theory shed light on this change? What event occurred to change the relative effectiveness of monetary and fiscal policy?