

## Extra Problems

**Disclaimer.** The objective of this file is to give you an idea of the difficulty level of the problems you will face in the upcoming midterm. These problems do not cover all the topics that will be included in the midterm. In the exam, I can ask any question/problem related to Chapters 1-4 or anything reviewed in class.

### 1 Multiple Choice. Choose the one alternative that best complete the statement or answers the question

1. Which one of the following statements is the most accurate?
  - (a) A depreciation of a country's currency makes its goods more expensive for foreigners.
  - (b) A depreciation of a country's currency makes its goods cheaper for its own residents.
  - (c) A depreciation of a country's currency makes its goods cheaper for all agents.
  - (d) A depreciation of a country's currency makes its goods cheaper for foreigners.
  - (e) None of the above.
2. The action of arbitrage is
  - (a) the process of buying a currency cheap and selling it dear.
  - (b) the process of buying a currency dear and selling it cheap.
  - (c) the process of buying and selling currency at the same price.
  - (d) the process of selling currency at different prices in different markets.
  - (e) None of the above.
3. An increase in a country's money supply causes
  - (a) its currency to appreciate in the foreign exchange market while a reduction in the money supply causes its currency to depreciate.
  - (b) its currency to depreciate in the foreign exchange market while a reduction in the money supply causes its currency to appreciate.
  - (c) no effect on the values of its currency in international markets.
  - (d) its currency to depreciate in the foreign exchange market while a reduction in the money supply causes its currency to further depreciate.
  - (e) None of the above.
4. In the long run, a permanent increase in a country's money supply
  - (a) causes a more than proportional increase in its price level.
  - (b) causes a less than proportional increase in its price level.
  - (c) causes a proportional increase in its price level.
  - (d) leaves its price level constant in long-run equilibrium.
  - (e) None of the above.

5. The monetary approach makes the general prediction that
- the exchange rate, which is the relative price of American and European money, is fully determined in the long run by the relative supplies of those monies.
  - the exchange rate, which is the relative price of American and European money, is fully determined in the short run by the relative supplies of those monies and the relative demands for them.
  - the exchange rate, which is the relative price of American and European money, is fully determined in the short- and long run by the relative supplies of those monies and the relative demands for them.
  - the exchange rate, which is the relative price of American and European money, is fully determined in the long run by the relative supplies of those monies and the relative demands for them.
  - None of the above.

**2 Essay. Write your answer in the space provided. Support your answers with a graph when needed**

- Suppose quotes for the dollar-euro exchange rate  $E_{\$/e}$  are as follows: in New York 1.50 per euro and in Tokyo 1.55 per euro. Describe how investors use arbitrage to take advantage of the difference in exchange rates. Explain how this process will affect the dollar price of the euro in New York and Tokyo.
- Suppose that the U.S. dollar has appreciated relative to the Chinese yuan and depreciated relative to the Mexican peso. What has happened to the value of the dollar based on the effective exchange rate? How is your answer based on the relative importance of U.S. trade with China and Mexico? Explain. (Hint: Mexico is the United States second-largest trading partner after Canada)
- Consider a Canadian investor seeking to invest in Argentina. Using the UIP condition (allowing for risk), explain how an increase in the Canadian interest rates would affect the value of the Peso and the Canadian dollar. Assume that the interest rate in Argentina, the expected exchange rate and the forward exchange rate remain constant. Use a diagram and equations to support your answer.

**3 Answer True or False. Briefly explain your answer and use the proper diagram when needed. No credit without explanation.**

- UIP** Suppose that today's exchange rate is equal to \$1.10 per euro (dollars per euro), next year's expected exchange rate is equal to \$1.166 per euro, the dollar interest rate is 10%, and the euro interest rate is 5%. Then the expected dollar rate of return on euro deposits is equal to 11%.
- The real interest rate parity condition derived from the Fisher effect indicates that the real interest rate differential between two countries with open capital mobility is equal to zero. Do not forget to support your answer with some equations.

**4 China and the U.S.**

This question compares the effects of temporary and permanent shocks to the money supply. In this question, define the exchange rate as U.S. dollars per Chinese yuan,  $E_{\$/Y}$ .

- a Illustrate the short-run and the long-run effects of a temporary increase in the U.S. money supply.
- b Illustrate the short-run and the long-run effects of a permanent increase in the U.S. money supply.
- c Illustrate how each of the following variables changes over time: U.S. money supply, U.S. price level, U.S. real money supply, U.S. interest rate,  $E_{\$/Y}$ , and  $E_{\$/Y}^e$ . Assume the change in the money supply occurs at time  $T$  and the long-run equilibrium is at time  $T + k$ .

## 5 Money Demand Shock

Use the money market and FX diagrams to answer the following questions. This question considers the relationship between the euro (e) and the U.S. dollar (\$). Let the exchange rate be defined as U.S. dollars per euro,  $E_{\$/e}$ . On all graphs, label the initial equilibrium point A. Suppose that with financial innovation in the United States, real money demand in the United States decreases. Assume this change in U.S. real money demand is temporary. Using the FX and money market diagrams, illustrate how this change affects the money and FX markets. Label your short-run equilibrium point B and your long-run equilibrium point C. Explain what would happen to the US interest rates, the European interest rate, the nominal exchange rate ( $E_{\$/e}$ ),  $E_{\$/e}^e$ , the US and the European price levels in the short run and long run?