

ECON 136, Fall 2016
Homework #7
Due Nov. 9, 2016

1. Look up these exchange rates at www.xe.com and record the values you find to three decimal places.
 - a. Japanese yen per dollar (¥/\$ or JPY/USD)
 - b. Japanese yen per euro (¥/€ or JPY/EUR)Calculate the expected value of the \$/€ exchange rate based on the two numbers you found. Then look up the actual XR. Are they exactly the same? If they are not, you have almost certainly made an error.
2. Suppose that for some reason the \$/€ XR is 2% lower than the expected value.
 - a. Calculate this new number
 - b. Which of these strategies would result in an arbitrage profit in this situation?
 - Convert \$ to ¥, then ¥ to €, then € to \$.
 - Convert \$ to €, then € to ¥, then ¥ to \$.
3. Using the strategy you chose in the previous question, assume you are given a million dollar stake. Do the conversion calculations using the reduced \$/€ XR. How many \$ do you end up with?
4. Repeat the calculation of the previous question, adding a 0.5% transaction fee for each conversion. How many \$ do you then end up with?
5. Consider the FX market for £ bought and sold for \$ as in class. Suppose the US price level rises suddenly while the UK price level remains unchanged. Show how US and UK people will respond.
 - a. UK demand for US goods/services: rise or fall?
 - b. UK supply of £ in the FX market: rise or fall?
 - c. Supply shift causes \$/£ XR to rise or fall?
 - d. Supply shift causes £ to appreciate or depreciate relative to the \$?
 - e. US demand for UK goods/services: rise or fall?
 - f. US demand for UK £: rise or fall?
 - g. Demand shift causes \$/£ XR to rise or fall?
 - h. Demand shift causes £ to appreciate relative to \$ or depreciate?
 - i. Do the effects of items (d) and (h) reinforce each other or offset each other?
6. This question is about forward currency contracts. In each case, indicate whether the US person seeking to avoid XR risk would be a buyer or seller of £ for future delivery.
 - a. Donald Trump is selling one of his castles in Scotland¹ in order to pay off his campaign debts. The deal will close in January, 2017.
 - b. I plan to visit London next spring.
 - c. In a magnanimous gesture, Bill Gates has agreed to purchase the British Crown Jewels in order to reduce the UK government debt. He will pay for them next spring.
 - d. A US speculator believes the post-Brexit depreciation of the £ has been overdone.

¹ I am unaware of whether Donald Trump actually owns any castles in Scotland