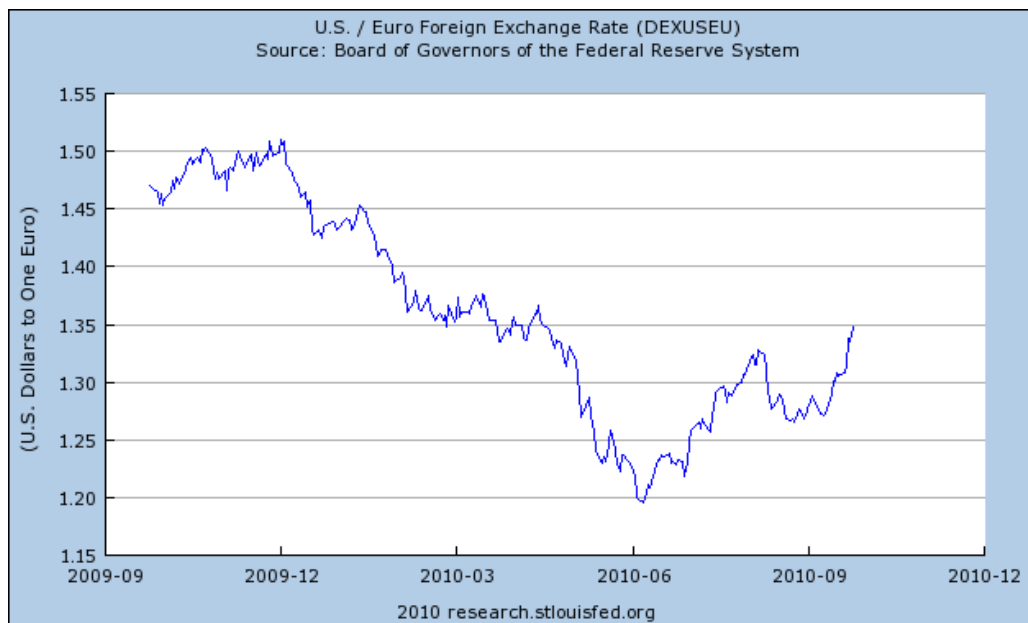


Problem 1

Understand currency risk hedging



The above chart shows you the dollar/euro exchange rate during the past year. As you can see, the currency movement has been very dramatic during this period because of European financial crisis.

Imagine you are the Finance Department manager of a big German retailer, and your company needs to import \$10-million dollar worth of goods from the US on a quarterly basis. Your task is to help the company control currency risk.

- 1) The time now is March 2010. The dollar/euro is traded at \$1.35 per euro. Now you are convinced that the European financial crisis may not end very soon, and you have to act to avoid any further currency loss. So you bought a 3-month forward contract worth of \$10 million at **\$1.3450 per euro**, which locks in today's exchange rate at \$1.35. Three months later, the exchange rate drops to \$1.20 per euro. How much money have you saved for your company?
- 2) The time now is June 2010. With the financial crisis deepening, rumor is spreading that the Euro may collapse. You feel quite confident that the Euro is going even lower. So you bought another 3-month forward contract worth of \$10 million from your bank. You paid the bank **\$1.19 per euro** and you locked in the exchange rate at \$1.20. Compared to three months ago, the contract costs much more now because the forward contract is in hot demand. Three months later, when the new contract expires, the exchange rate is again traded at \$1.35. In this case, what is the net gain of buying the second forward contract?
- 3) What lessons have you learned from the above example? What's the disadvantage of using forward contract to hedge currency risk? Are there better alternatives?

Problem 2

Calculate Exchange Rate

- 1) Go to <http://fx.sauder.ubc.ca/data.html>, choose US dollar as base currency, and Chinese Renminbi (or Yuan) as target currency. Retrieve the exchange rate between the two currencies between Jan 01, 2010 and Sept. 30, 2010, and save it in an Excel file. First determine whether Yuan has depreciated or appreciated against US dollar during this period; then calculate by what percentage Yuan has depreciated or appreciated.
- 2) Now do the same thing between US dollar and Euro. Use the same time period.
- 3) With answers in 1) and 2), now determine whether Yuan has depreciated or appreciated against the Euro, and by how much, in percentage.
- 4) If you are a Danish business man, and you travel frequently between China and Denmark. At the beginning of the year (on 01/01/2010) a round-trip air ticket cost 6,000 DKK, how much will it cost now (on 09/30/2010), in DKK?

(Hint: DKK is pegged to the Euro at 7.50 DKK per euro, and let's assume the exchange rate did not change at all during the whole period)