Finance 40500
Group Exercise #1

1) Suppose that both the US and Europe are following a gold standard. The price of gold in the US is pegged at $650/oz while the price of gold in Europe is pegged at E 500.
   a) Calculate the implied EUR/USD exchange rate.

$$\frac{\$650}{E500} = \$1.30 \text{ per Euro}$$

   b) Suppose that large US trade deficits cause the Euro to appreciate to a price of $1.35 per Euro. In which direction will gold flow and what will gold trader's profits be?

      With the current exchange rate, the Euro is **overvalued** relative to the implied rate based on gold prices. A strategy that involves selling Euro and buying dollars will be profitable. For example:

      1) Borrow 1 Euro
      2) Sell the Euro for $1.35 and use the dollars to buy .002 oz. of Gold in the US (1.35/650)
      3) Ship the gold to Europe and sell the gold at E500 per ounce to get 1.038 Euro – a 3.8% return!

      Note that gold will flow out of the US and into Europe causing a contraction of the US money supply and an expansion of the European money supply. In response, prices in the US should fall while prices in Europe rise. The price changes should correct the trade imbalance.

2) Suppose that you take out a long position in dollars at a USD/CHF exchange rate of 1.2258 and later reversed the position at 1.2345. Calculate your trading profit in dollars.

   To buy $1, you will need 1.2258 CHF. You will later sell the $1 for 1.2345 CHF. Therefore, your profit is (1.2345 – 1.2258) .0087 CHF per dollar traded. Convert into dollars by dividing .0087 by 1.2345 to get .007 dollars per dollar traded.

3) Suppose that you have the following exchange rates:

   USD/CAD: 1.1208 – 1.1215
   USD/GBP: .5289 - .5293

   Calculate the Bid/Offer rates for the CAD/GBP exchange rate.

a) The bid rate for CAD/GBP represents the price in which you can sell CAD for GBP (The bid rate is the price that the market is buying at). Lets start with 1 CAD.

   1 CAD: You can sell that CAD and buy dollars at the markets ask rate for dollars (1.1215) to acquire 1/1.1215 = .8917 USD.

   Now, you can buy GBP with your dollars at the markets Bid rate for dollars against pounds (.5289) to acquire .8917*.5289 = **.4716 GBP**

b) The ask rate for CAD/GBP represents the price in which you can buy CAD with GBP (The bid rate is the price that the market is selling at).

   To get 1 CAD, you will need 1/1.1208 = .8922 USD

   To get .8922 USD, you will need (.8922 * .5293) **.4723 GBP.**