ECON 426 - SUGGESTED ANSWERS TO ASSIGNMENT ONE

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1. Krugman and Obstfeld, Chapter 12, Question 3, page 326.

a. The transfer of the German stock from a holder in Germany to a holder in the U.S. represents a capital outflow (an increase in foreign assets (the German bond) held by a domestic resident) and is a debit to the U.S. capital account. The check payment drawn on an account with a Swiss bank represents a capital inflow (a decrease in foreign assets (the Swiss bank account) held by domestic residents) and is a a credit to the capital account. These transactions are a case in which a U.S. resident trades one foreign asset for another.

b. The transfer of the German stock from a holder in Germany to a holder in the U.S. represents a capital outflow (an increase in foreign assets held by a domestic resident) and is a debit to the U.S. capital account. How the other side of the transaction is recorded depends on what the German seller does with the check. If she uses the funds to purchase a U.S. good, this is an increase in U.S. exports and is a credit to the U.S. current account. If she purchases a U.S. asset, this is a credit to the U.S. capital account. If she deposits the funds in a German bank, then it depends what the bank does with the funds.

c. The selling of U.S. dollars by the French government represents a capital outflow (a decrease in domestic assets held by foreigners) and is a debit to the U.S. capital account. If the French people who now hold the U.S. dollars purchase U.S. goods, this is an increase in U.S. exports and is a credit to the U.S. current account. If the French people who now hold the U.S. dollars purchase a U.S. asset, this is a credit to the U.S. capital account.

d. The purchase of the meal using a U.S. traveler's check is an import from France and is a debit to the U.S. current account. If the company issuing the traveler's checks has a checking account in France, then the company must lose assets in France when it makes the payment to the French restaurant. This represents a capital inflow (a decrease in foreign assets held by domestic residents) and is a credit to the U.S. capital account.

e. There is no effect on the balance of payments accounts because this is a non-market transaction.

f. There is no effect on the U.S. balance of payments accounts because transactions occurred outside of the U.S.

2. Krugman and Obstfeld, Chapter 14, Question 10, page 392.
The short-run increase in real output in response to an increase in the money supply will mitigate the fall in the interest rate. Since the interest rate does not fall by as much as in the case when real output is fixed, the current exchange rate will not rise by as much in the short-run (that is, the home currency will not depreciate as much

in the short-run). Hence, the exchange rate will not overshoot its long-run level by as much as in the case with fixed real output.
If real output increases by a large amount in the short-run in response to an increase in the money supply, it is possible that the interest rate will rise in the short-run. This will cause the home currency to *appreciate* in the short-run and then subsequently depreciate to its long-run level. Hence, it is possible that the exchange-rate will undershoot its long-run level.

3. Krugman and Obstfeld, Chapter 15, Question 16, page 431.
First note that the expected real interest rate equals the nominal interest rate minus the expected inflation rate. An increase in the home nominal interest rate due to an increase in the expected home real interest rate, ceteris paribus, will cause the home currency to appreciate (by the uncovered interest rate parity condition.) An increase in expected inflation, ceteris paribus, leads to higher expected future nominal exchange rates via the PPP condition, and, therefore, tends to lead to a current depreciation of the home currency by the uncovered interest rate parity condition. However, the increase in expected inflation also causes the nominal interest rate to increase which tends to cause the currency to appreciate by the uncovered interest rate parity condition. Whether the currency appreciates or depreciates depends upon which effect dominates.

4. The (certain) return on one Canadian$ invested in the Canadian asset equals 1.05. The current spot rate of Canadian$ per one US$ equals $1/.8 = 1.25$ and the expected rate equals $1/.9 = 1.11$ and the forward rate equals $1/1=1$. Thus, if you do *not* use the forward exchange rate market, the expected return on one Canadian $ invested in the U.S. asset equals $(1.30)\text{x}(1.11/1.25) = 1.155$. Hence, based on your expectations of future exchange rates, you should be unwilling to invest in the Canadian asset if you do not use the forward market. If you use the forward exchange rate market, the (certain) return on one Canadian$ invested in the U.S. asset equals $(1.30)\text{x}(1/1.25) = 1.04$. Hence, you would be unwilling to invest in the U.S. asset using forward contracts on exchange rates. To summarize, you will be willing to invest in the U.S. asset taking an uncovered position and willing to invest in the Canadian asset taking a covered position.

5. The monetary model of exchange rates that we have studied uses money market equilibrium, purchasing power parity, and uncovered interest rate parity to derive a relationship between exchange rates and current and future money supplies and real outputs. In particular, the model predicts that an increase in the current or future Canadian money supply will cause the Canadian dollar to depreciate and an increase in current or future Canadian real output will cause the Canadian dollar to appreciate.

The *Globe and Mail* article states in the paragraph marked (1) that the Canadian dollar has been appreciating since David Dodge, Paul Martin, and Jean Chrétien pointed to Canada's strong economic fundamentals. This can be interpreted as an expected increase in future Canadian real output which, according to our theory, will cause a current appreciation of the Canadian dollar. Hence, this argument makes sense in the context of our model.

The paragraphs marked (2) and (3) primarily deals with expectations about future contractionary monetary policy by the Bank of Canada to prevent further depreciation of the Canadian currency. Again, our model predicts that current announcements about future decreases in the Canadian money supply by the Bank will cause a current appreciation of the Canadian dollar which is consistent with the arguments being made in the article.

The paragraph marked (4) deals with interest parity conditions. Interest parity tells us that when investors' expectations about the future exchange rate change such that they expect the Canadian dollar to appreciate (here because of announcements by Dodge) then they are less willing to invest in U.S. dollar assets. This is consistent with the argument being made in that paragraph in the article.