Questions 1-4. Answer True, False, or Uncertain. Briefly explain your answer. No credit without explanation (10 points each).

1. Higher domestic interest rates cause the domestic currency to appreciate.
   **UNCERTAIN.** If higher interest rates reflect expected inflation, then the currency would be expected to depreciate. However, if higher interest rates reflect a higher real interest rate, then the currency would be expected to appreciate.

2. Domestic monetary expansions ‘improve’ the domestic current account.
   **UNCERTAIN.** This is true if the Marshall-Lerner condition holds. Domestic monetary expansions lead to an exchange rate depreciation. This increases net exports as long as imports are sufficiently responsive to a change in their relative price. If not, then the higher price of imports could actually lead to a decline in net exports.

3. With integrated capital markets, real interest rates should be the same across countries.
   **UNCERTAIN.** This is true if PPP and UIP hold. If not, then changes in the real exchange rate will be reflected in real interest rate differentials (i.e., ‘real interest parity’).

4. If both Covered and Uncovered Interest Parity hold, then the forward exchange rate equals the expected future spot exchange rate.
   **TRUE.** *UIP implies*
   \[ 1 + R = \frac{E^e}{E}(1 + R^*) \]
   where \( R \) is the domestic interest rate, \( R^* \) is the foreign interest rate, \( E \) denotes the spot exchange rate (expressed as the price of foreign currency), and \( E^e \) is the expected future spot exchange rate. *Covered Interest Parity implies*
   \[ 1 + R = \frac{F}{E}(1 + R^*) \]
   where \( F \) is the forward exchange rate. Clearly, if both Covered and Uncovered Interest Parity hold, then \( E = F \).

The following questions are short answer. 20 points each.
5. China is experiencing relatively rapid growth in its tradeable goods industries. According to the Balassa-Samuelson model, what should be the effect of this on China's real exchange rate? Does the fact that China pegs its currency to the U.S. dollar invalidate the predictions of the Balassa-Samuelson model? Explain how Balassa-Samuelson might still apply, even when a country maintains a fixed (nominal) exchange rate.

Rapid productivity growth in tradeables will lead to higher wages in tradeable goods industries (assuming China is a price-taker in world markets). Higher wages in tradeables will bid up wages in nontradeable goods industries (assuming workers can move between sectors). Higher wage costs in nontradeable goods will bid up the prices of nontradeable goods (zero profit condition). Therefore, rapid productivity growth in Chinese tradeables should lead to a real appreciation of the Chinese currency. However, if China's nominal exchange rate is fixed by the central bank, then a real appreciation will be reflected in a higher Chinese inflation rate (relative to the U.S.). (Remember, the real exchange rate is \( q = \frac{E P^*}{P} \), so \( q \) can fall either because \( E \) falls, or because \( \frac{P^*}{P} \) falls). This is one reason why China faces a persistent threat of inflation.

6. When the U.S. economy went into a recession in 2008, it dragged the Canadian economy into a recession as well. Some people argue that the U.S. financial crisis spread to Canada through the financial markets, by increasing risk premia and shifting Canada's AA curve to the left. Other people argue that the main transmission effect operated through the goods market, since lower U.S. output led to lower Canadian exports, which shifted the DD curve left. Explain how you could use information from the foreign exchange market to distinguish between these two stories. Use graphs to illustrate your answer.

If transmission occurred mainly through the asset markets (i.e., a leftward shift of Canada’s AA curve), we would expect to observe an appreciation of the Canadian dollar. If the transmission occurred mainly through the goods markets (i.e., a decline in net exports which shifted the DD curve left), then we would expect to observe a depreciation of the Canadian dollar. Both no doubt occurred, but the fact that the Canadian dollar initially depreciated suggests that transmission mainly occurred via the goods market. (NOTE: I don’t care whether they say the goods market or asset market was more important, as long as they get the analysis correct).

7. Some people blame the recent financial crisis on excessive saving in Asia (the so-called ‘savings glut hypothesis’). Others blame it on excessive U.S. consumption and (residential) investment. Both theories account for the fact that Asia runs large current account surpluses while the U.S. runs large deficits. Explain how you could use financial market data to distinguish between these two theories.

The savings glut story predicts that world (real) interest rates should have been low prior to the crisis. The excessive U.S. spending story predicts that world interest rates should have been high prior to the crisis. In fact, world interest rates were low prior to the crisis, but blaming this on Asia is not so easy, since U.S. monetary policy was also pretty loose during this period. (Again, I don’t care which side they take, as long as they get the analysis correct).