Questions 1-3. Answer True, False, or Uncertain. Briefly explain your answer. No credit without explanation (5 points each).

1. Current Account surpluses are a sign that a country’s economy is strong.
   **FALSE/UNCERTAIN.** A country has a current account surplus when it saves more than it invests. This could either be a sign of economic strength or weakness. For example, many countries run current account deficits after natural resource discoveries. In this case, countries borrow in order to invest, and it is certainly not a sign of weakness. On the other hand, many countries are forced to run current account surpluses, in order ‘deleverage’ following a period of excessive borrowing, which usually occurs during the aftermath of a financial crisis. For example, although the USA is still running a current deficit, its deficit is much lower than it was before the crisis. The most that can be said for this statement is that countries that are doing temporarily well, will be saving in anticipation of lower future income, and therefore they will have current account surpluses.

2. According to Uncovered Interest Parity, exchange rate changes should be predictable.
   **TRUE.** UIP implies that exchange rate changes should be predicted by nominal interest rate differentials. It’s only when two country’s nominal interest rates are the same that changes should be unpredictable.

3. Purchasing Power Parity does not apply to China, since it pegs its currency to the US dollar.
   **FALSE.** PPP just says that \( P = E P^* \). If \( E \) is fixed by one of the central banks, then PPP implies that the domestic inflation rate must equal the foreign inflation rate.
   The following questions are short answer. Clarity and conciseness will be rewarded!

4. (10 points). Suppose the 12-month forward price of the pound in terms of C$ is 1.5 C$ per pound. Suppose the spot price of of the pound in terms of C$ is 1.4. Next, suppose that currently the annual interest rate in Canada is 3%, while the annual interest rate in Britain is 5%. There are no transactions costs. Is there an arbitrage opportunity here? If so, explain exactly how you would take advantage of this situation to make riskless profits.

   Covered interest parity implies the following relationship between spot and forward exchange rates and nominal interest rate differentials
   \[
   R = R^* + \frac{F - S}{S}
   \]
   The left-hand side is the C$ rate of return on a C$ deposit. The right-hand side is the (covered) C$ rate of return on a pound deposit. Using the above data, we get \((F - S)/S \approx 0.071\). That is, the C$ is selling at a 7% discount on the forward market, reflecting an expected depreciation of the dollar relative to the pound. At the same time, British interest rates are 2% higher, so not only do you get a higher interest rate, you also get an exchange rate bonus. In the case, you can make riskless profits.
by borrowing as many C$ as you can get your hands on, convert them to pounds in the spot market, invest the pounds, and at the same time sell forward the known amount of pounds you will get. This will give you more than enough C$ to pay off your original C$ loan. (In practice, the separate spot and forward transactions are combined into a single ‘swap’ transaction. (PS - Several students pointed out that I screwed up last year’s posted solution, by mixing up F and S. Sorry! Hope I got this one right.)

5. (25 points). Read the article entitled “Birth Pains”, which is posted on the course webpage (from The Economist). According to this article, why is there a tension between borrowers and lenders, and how has the international financial system resolved this tension in the past? According to this article, what was the connection between rapid growth in China and India and the recent international financial crisis? According to this article, what might the future international system look like? Why?

Loan contracts are usually set in nominal terms, i.e., the borrower agrees to pay back a certain amount of currency in the future. This exposes both parties to inflation risk. If inflation turns out to be higher than expected (as reflected in the original nominal interest rate), then the borrower benefits, since the money he pays back is not worth as much as the money he got. Conversely, if inflation turns out to be lower, then the lender benefits, since he gets more than enough interest to compensate for the intervening inflation. So all throughout history there has been constant tension between borrowers and lenders concerning monetary policy. Borrowers want an ‘easy money’ policy that will inflate away their debts. Lenders want a ‘hard money’ policy that will preserve the purchasing power of their financial assets. For this reason, farmers and other debtors hated the gold standard, since it made it difficult for countries to pursue inflationary monetary policies. (Incidentally, the Wizard of Oz was an allegory about the gold standard. Guess who the wicked witch of east represented? Guess what Oz stands for?). Most people now believe that adherence to the gold standard made the Great Depression worse. (For example, countries that left the gold standard earlier recovered faster and more strongly). Countries that stuck with the gold standard experienced nastier ‘debt deflations’, in which debtors found themselves with larger (real) debts than expected (exactly like a homeowner who takes out a big mortgage, only to see the price of his house plummet). Partly for this reason, the balance of power between lenders and borrowers shifted toward borrowers after the Great Depression (or more precisely, after World War II, since global financial systems tend to fall apart during world wars!). Although the Bretton Woods system did try to maintain some of the anti-inflationary discipline of the gold standard (by supposedly keeping the US dollar linked to gold), in practice it permitted much more activist and inflationary monetary policies (which many countries dutifully abused during the 1970s). This loss of monetary discipline was accentuated following the collapse of the Bretton Woods System in the early 1970s, and the subsequent movement toward flexible exchange rates. One “benefit” from having a flexible exchange rate is that you can have as high an inflation rate as you want, without fearing a currency crisis. This can be beneficial if you want to bail out domestic borrowers by inflating away their debts. The fact that European countries can’t do this anymore is a big part of their current problem. It can also be beneficial if you borrow from foreigners in your own currency, since you can then inflate away your foreign debt, which is something China is very worried about these days.

According to the article, rapid growth in China and India put downward pressure on world prices, and allowed western central bankers to engage in ‘easier’ monetary policies than otherwise, without fearing inflation. This supposedly helped stoke the housing bubble in the years leading up to the crisis.

A common view is that China’s domestic capital markets will need to become more ‘westernized’ (e.g., less regulated) if China’s currency is ever to become a world currency. The article notes that this is not the only way convergence can take place. Recent financial turmoil has made some people wonder whether unregulated financial markets are such a great idea. Maybe China has the right idea! Maybe
western financial markets will start to be more regulated.

6. (25 points). Read the article by Paul Krugman entitled “Taking On China”, which is posted on the course webpage (from the *New York Times*). According to Krugman, is China’s exchange rate policy good or bad for the rest of the world? Why? According to Krugman, how should the USA respond to China’s exchange rate policy? What would happen if China responded by selling US assets?

According to Krugman, China’s currency is significantly ‘undervalued’, which gives their goods an unfair price advantage in world markets. (As noted in class, applying conventional PPP measures of under- or overvaluation can be misleading, given the fact that there are still significant productivity differentials between China and the USA. Remember Balassa-Samuelson?) In any case, from this premise, Krugman claims that China’s policy is bad for other countries, since many of these countries are currently in a ‘liquidity trap’, and so are unable to stimulate their economies by cutting interest rates. One way to get out of a liquidity trap is to depreciate your currency, which China’s exchange rate policy is preventing. In response, Krugman argues that the USA should explicitly accuse China of ‘currency manipulation’, which would then make it legal (according to WTO rules) for them to impose across-the-board tariffs on Chinese imports. According to Krugman, the USA doesn’t need to worry about Chinese retaliation. Threats to dump dollar assets are empty, since this would simply produce the dollar depreciation that the USA wanted in the first place! It would also significantly reduce the value of China’s foreign reserves.