Final Exam

What to do this practice exam.

You have 75 minutes to answer questions 1 to 5. There is 1 bonus to be gained in the toughest question (2.5 points). When asked to "argue briefly", please answer in no more than 10 lines but in no fewer than 3.

Students are not allowed to collaborate with any other person while taking the exam, or to discuss it afterward with anyone who has not yet taken the final exam in Fall 2009. The exam is closed book, but each student is allowed to bring in a calculator and one A4 sheet. One side of the sheet (only one) can contain anything the student wishes, but has to be handwritten by him/her (no photocopying).

Good luck in prepping!
**Question 1. (10 points)**

Five years ago, Lindemans Plc., an Australian wine maker, issued 5-year zero coupon bonds. It had the choice at the time between USD-denominated and AUD-denominated bonds, and chose to borrow in USD because the AUD bonds sold at a 15% deeper discount than the USD-denominated bonds.

Back in 2004, Lindemans decided not to hedge its FX exposure (i.e., the fact that it is Australia-based but would have to pay back both principal and interest in US dollars). Since October 2004, the Australian dollar (AUD) has appreciated by about 19% against the U.S. dollar.

   (Hint: do not make this more complicated than it is)

b. Compare what Lindemans’ total borrowing cost (expressed in AUD) would have been, depending on whether it borrowed in either AUD or USD (assume no hedging).
Question 2. (10 points)

Novartis, a Swiss pharmaceutical company, is contracting to sell genetic materials to Okinawa Health Drinks, a Japanese company. Novartis quote a price of 75,000,000 Swiss francs (SF) to be paid in 2 equal semi-annual SF installments of 37,500,000 SF, beginning 6 months from now. ABB quotes an alternative price of ¥4.9 billion to be paid also in 2 equal semi-annual ¥ installments of ¥2.45 billion, beginning 6 months from now. Suppose that Nihon T&T can trade at the following spot or forward rates (#SF/1¥):

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<thead>
<tr>
<th></th>
<th>90 days</th>
<th>180 days</th>
<th>270 days</th>
<th>360 days</th>
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<tbody>
<tr>
<td>spot</td>
<td>0.0151</td>
<td>0.0149</td>
<td>0.0148</td>
<td>0.0147</td>
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<tr>
<td>90 days</td>
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<td>180 days</td>
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<td>360 days</td>
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Assuming Nihon cares about the all-in cost in Yen, which quote should Okinawa pick? (Hint: compare apples to apples).
Question 2. (additional space, if needed)
Question 3. (10 points)

In early September, 2008, the Japanese yen was trading spot at 100 Yen per US dollar. In the course of the following quarter, the U.S. consumer price index (CPI) rose by about 1%, while the corresponding Japanese consumer price index was flat.

a. (2.5 points) If PPP had held during that quarter, what should have been (approximately) the spot US$/¥ exchange rate in late December? Explain intuitively.

b. (7.5 points) In fact, the spot exchange rate on January 2, 2009 was ¥92.30/1$. Was there a real appreciation or depreciation of the ¥ in the fourth quarter of 2008? Explain intuitively (2.5 points) and show your work formally (5 points).
Question 3. (additional space, if needed)
Question 4. (15 points)

The Japanese yen was trading against the U.S. dollar at ¥102/1$ a year ago. Since that time, the U.S. consumer price index (CPI) has risen from 110 to 114, while the corresponding Japanese index has increased from 108 to 109.

a. (5 points) If PPP had held during the year, what would have been the current US$/¥ exchange rate? Intuitively and formally, show your work.

b. (5 points) In fact, the spot exchange rate is currently ¥114.30/1$. Was there a real appreciation or depreciation of the ¥ during the last year? Intuitively and formally, show your work.
Question 4. (continued)

c. (5 points) If you were a Japanese car company producing in the U.S.A. and facing, both in the United States and abroad, severe competition from U.S. manufacturers, would a real depreciation of the dollar against the yen make you better or worse off? Explain intuitively.
**Question 5. (5 points)**

In January 2004 Kawasaki Engineering, a midsized Japanese company, borrowed 1 billion Yen for five years at an effective yield of 2.5%. It could have borrowed an equivalent amount of euros at 4.5% during the same time period. If the FX rate did not change much during that period (2004-2009) but inflation was 2% per year higher in Europe than in Japan, would the company have been better off borrowing euros? Explain (assume away any issue related to FX risk).
Bonus Question. (2.5 points)

If a currency in which they are long threatens to weaken, many companies will sell that currency forward in order to hedge against that anticipated depreciation. Comment on that policy.