Session 5: Post Class tests

1. The correct risk free rate to use in computing the hurdle rate for a company is
   a. The government bond rate in the country in which the company is incorporated
   b. The risk free rate in the currency in which the company reports its financial statements
   c. The government bond rate in the currency in which you choose to estimate cash flows and returns
   d. The risk free rate in the currency in which you choose to estimate cash flows and returns
   e. None of the above

2. Multinationals operate in many countries and often generate cash flows in multiple currencies. In computing the risk free rate to use in coming up with the hurdle rate for a multinational, which of the following would you use:
   a. A weighted average of the risk free rates in all of the currencies in which the company generates cash flows
   b. A simple average of the risk free rates in all of the currencies in which the company generates cash flows
   c. The lowest of the risk free rates in all of the currencies in which the company generates cash flows
   d. The highest of the risk free rates in all of the currencies in which the company generates cash flows
   e. None of the above

3. Assume that you are estimating a US dollar hurdle rate for a Mexican company with US operations. Which of the following would you use as your risk free rate? (You can assume that Mexico’s sovereign rating is Baa1 for both its local currency and foreign currency bonds)
   a. The rate on a ten-year US treasury bond (2%)
   b. The rate on a 3-month US treasury bill (0.25%)
   c. The rate on a dollar denominated Mexican Government bond (3.5%)
   d. The rate on a peso denominated Mexican Government bond (6%)
   e. The rate on a US dollar denominated bond issued by the Mexican company (4.5%)
   f. None of the above

4. Assume that you are now estimating a peso hurdle rate for a Mexican company with US operations. Which of the following would you use as your risk free rate? (You can assume that Mexico’s sovereign rating is Baa1 for both its local currency and foreign currency bonds)
   a. The rate on a ten-year US treasury bond (2%)
   b. The rate on a 3-month US treasury bill (0.25%)
   c. The rate on a dollar denominated Mexican Government bond (3.5%)
   d. The rate on a peso denominated Mexican Government bond (6%)
   e. The rate on a US dollar denominated bond issued by the Mexican company (5%)
   f. None of the above
5. Assume that you have computed risk free rates in a dozen major currencies and are coming up with different numbers. Which of the following will best explain why risk free rates will vary across currencies?
   a. Rates will be higher in emerging markets than in developed markets
   b. Rates will be higher in high growth markets than low growth markets
   c. Rates will be higher in high-inflation currencies than in low-inflation currencies
   d. Rates will be higher in riskier markets than in safe ones
   e. Estimation error
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1. **d. The risk free rate in the currency in which you choose to estimate cash flows and returns.** It does not matter where a company is incorporated or what currency it reports its financials in. It is the currency in which you choose to your assessment.

2. **e. None of the above.** As with the answer to the first question, it is the currency that you choose to do the analysis in that matters, not a composite value across different currencies.

3. **a. The rate on a 10-year US treasury bond.** To get a risk free rate in US dollars, you cannot use a peso bond rate or the rate on a Mexican dollar bond (since it has default risk in it). You also need a long-term rate to get to a hurdle rate; hence the T.Bill rate will not work.

4. **f. None of the above.** You can start with a ten-year peso bond rate of 6%, but it has default risk. Since the local currency and foreign currency ratings are the same, you can estimate the default spread on the Mexican bond to be 1.5% by subtracting the US treasury bond rate of 2% from the Mexican government dollar bond rate of 3.5%. Subtracting this from the 6% peso rate gives you a riskfree rate of 4.5% in pesos.

5. **c Rates will be higher in high-inflation currencies than in low-inflation currencies.** While risk and growth can affect interest rates at the margin, especially since capital does not move freely around the globe, big differences in risk free rates are almost always the result of higher inflation in one currency, relative to the other.