

## Session 6: Post Class tests

1. 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
2. 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
3. The equity risk premium is the premium that investors charge over and above the risk free rate to invest in equities. A key source of information about equities is earnings reports from companies. In the last two decades, companies have used both accounting discretion and operating choices to "manage" their earnings, making them smoother (less variability over time). What consequence would you expect for equity risk premiums from managed earnings?
  - a. Equity risk premiums should go down. (Earnings are smoother)
  - b. Equity risk premiums should go up. (Earnings are less informative)
  - c. Equity risk premiums should not change.
4. If investors are rational, the expected equity risk premium for a market should never be less than zero.
  - a. True
  - b. False
5. Many analysts use past data on stock and government security returns to estimate a historical risk premium. Assume that the arithmetic (geometric) average of annual stock returns is 10% (9%) and that the arithmetic (geometric) average of annual treasury bond returns is 5% (4.5%) over a hundred year period. If the annualized standard deviation in stock returns over this period was 20%, which of the following is your fairest characterization of the historical risk premium (which you plan to use in your long term hurdle rate)?
  - a. Historical risk premium is 5%, standard error is 20%
  - b. Historical risk premium is 4.5%, standard error is 2%

- c. Historical risk premium is 5.5%, standard error is 2%
  - d. Historical risk premium is 4%, standard error is 2%
  - e. None of the above
6. There are some analysts who use historical risk premiums with emerging markets, using average premiums over ten to fifteen years, in their estimates. Which of the following would you be most concerned about, with this approach?
- a. Equity risk premiums will be too high, since emerging markets do better than developed markets.
  - b. Equity risk premiums will be too low, if there is a bear market during the estimation period.
  - c. A historical risk premium with only ten to fifteen years of data will have a very high standard error.
  - d. Emerging markets are too volatile.
  - e. Emerging markets are dynamic and changing over time.