Session 3
Understanding Risk II: The risk in stocks

Test

1. You are considering investing in Con Ed, a regulated utility. The shares are trading at $50/share and the company paid a dividend of $2.50/share in the most recent year. Assume that you feel that it is very unlikely that the dividends will be reduced. Which of the following statements about risk would you most subscribe to?
   a. There is little risk in this investment since the dividends are unlikely to be cut.
   b. There is little cash flow risk on this investment but there can still be significant price risk.
   c. If you have a long time horizon, there is little risk in this investment
   d. If you have a short time horizon, there is little risk in this investment
   e. None of the above
2. In traditional risk and return models, we assume that only that portion of the risk that cannot be diversified away in stocks should be considered as equity risk. To arrive at this conclusion, which of the following do we assume?
   a. That all investors are diversified
   b. That all investors are undiversified
   c. That the marginal investors (who hold and trade the most shares) are diversified
   d. That the marginal investors (who hold and trade the most shares) are undiversified
   e. None of the above
3. In the capital asset pricing model (CAPM), the beta of a stock measures its risk. Assume that you have found a stock with a beta of 1.20. Assuming that you accept the CAPM and that the beta is correctly measured, which of the following best describes this company?
   a. It is 1.20 times more risky than the average company in the market
   b. It is 1.20 times more risky than the average company in the market to an individual investor
   c. It is 1.20 times more risky than the average company in the market to an institutional investor
   d. It is 1.20 times more risky than the average company in the market to an undiversified investor
   e. It is 1.20 times more risky than the average company in the market to an undiversified investor
4. Stocks have become riskier over the last few years, as a result of global crises, and the betas for all companies have gone up as a result.
   a. True
   b. False

5. If you are an intrinsic value investor, you may feel that the CAPM beta is not an appropriate measure of risk for you. Which of the following is <u>not a good reason</u> for not using betas?
    a. The CAPM puts too much focus on price risk and too little on cash flows.
    b. The CAPM is backward looking, since betas are estimated with historical or past data.
    c. You invest in only a few companies and are not diversified.
    d. Since you do your homework before you buy companies, you are not exposed to risk.

Solutions

1. You are considering investing in Con Ed, a regulated utility. The shares are trading at $50/share and the company paid a dividend of $2.50/share in the most recent year. Assume that you feel that it is very unlikely that the dividends will be reduced. Which of the following statements about risk would you most subscribe to?
   a. There is little risk in this investment since the dividends are unlikely to be cut.
   b. **There is little cash flow risk on this investment but there can still be significant price risk.**
   c. If you have a long time horizon, there is little risk in this investment
   d. If you have a short time horizon, there is little risk in this investment
   e. None of the above

Explanation: The dividends may be predictable and stable but the stock price can vary, because it is still a function of not only macro economic variables such as interest rates and risk premiums, but also of company specific variables such as earnings and growth. Thus, even if you have a long time horizon, there will still be price risk.

2. In traditional risk and return models, we assume that only that portion of the risk that cannot be diversified away in stocks should be considered as equity risk. To arrive at this conclusion, which of the following do we assume?
   a. That all investors are diversified
   b. That all investors are undiversified
   c. **That the marginal investors (who hold and trade the most shares) are diversified**
   d. That the marginal investors (who hold and trade the most shares) are undiversified
   e. None of the above

Explanation: The marginal investors set prices at the margin, by trading in large quantities on the stock. Thus, if they are diversified, the price will reflect only the risk that they perceive (which will be risk that cannot be diversified away), even if other investors are not.

3. In the capital asset pricing model (CAPM), the beta of a stock measures its risk. Assume that you have found a stock with a beta of 1.20. Assuming that you accept the CAPM and that the beta is correctly measured, which of the following best describes this company?
   a. It is 1.20 times more risky than the average company in the market
   b. It is 1.20 times more risky than the average company in the market to an individual investor
   c. It is 1.20 times more risky than the average company in the market to an institutional investor
   d. **It is 1.20 times more risky than the average company in the market to a diversified investor**

    e. It is 1.20 times more risky than the average company in the market to an undiversified investor

Explanation: Beta measures relative risk but only to the diversified investor.

4. A risky company cannot have a low beta.
    a. True
    b. **False**

Explanation: If the bulk of the risk in a company is company-specific (a young bio technology company awaiting approval for a new drug or a commodity company that is affected primarily by commodity prices), it can still have a low beta (which reflects only the portion of the risk that cannot be diversified away).

5. If you are an intrinsic value investor, you may feel that the CAPM beta is not an appropriate measure of risk for you. Which of the following is <u>not a good reason</u> for not using betas?
    a. The CAPM puts too much focus on price risk and too little on cash flows.
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    c. You invest in only a few companies and are not diversified.
    d. **Since you do your homework before you buy companies, you are not exposed to risk.**

Explanation: The first three reasons are all legitimate ones. Doing your homework can reduce estimation uncertainty but you will still be exposed to economic uncertainty from micro and macro factors.