

## Session 22: Post Class tests

1. You are a US consumer product company that is interested in investing in Brazil. Based on your assessment of the market, you believe that the present value of the cash flows from investing in the market today is \$100 million and that the cost of entry is \$150 million. However, the market is a very large one and you believe that if the initial investment does better than expected, your expansion potential is large. Which of the following would you do?
  - a. Don't invest. The NPV is negative.
  - b. Invest, because there is expansion potential.
  - c. Invest, but only if the expansion potential has a positive NPV > \$50 million today.
  - d. Invest, but only if the expansion potential comes with exclusivity.
  - e. Invest, but only if the expansion potential comes with exclusivity and you believe that the option to expand has a value greater than \$50 million
  - f. Invest, but only if the expansion potential comes with exclusivity and you believe that the option to expand has a value greater than \$150 million
  - g. None of the above
2. You have just valued Liszt Software, a small technology company, with a proprietary patent for the next 15 years. You have computed a DCF value of \$100 million for the company, but believe that the patent could give you an entrée into a larger market. Based upon what you know today, you believe that the cost of expansion into the larger market is \$500 million but that the present value of the cash flows from expansion is \$300 million. A simulation of this present value yields a standard deviation of 25% and the risk free rate is 3%. What are the inputs that will you use to value the option to expand?
  - a.  $S =$
  - b.  $K =$
  - c.  $r =$
  - d.  $t =$
  - e.  $\sigma =$
  - f.  $y$  (Cost of delay) =

Bonus: Value the option

3. The option to abandon refers to the choice that a company has to abandon or scale down an investment, if the cash flows do not measure up to expectations. In which of the following cases will the option to abandon be most valuable?
  - a. A short term, small, risky investment to a large company
  - b. A long term, large, risky investment to a large company
  - c. A long term, large, safe investment to a large company
  - d. A short term, small, risky investment to a small company
  - e. A long term, large, risky investment to a small company
  - f. A long term, large, safe investment to a small company
4. Genesis Inc. is a publicly traded company with a market capitalization of \$ 1 billion that has no debt on its balance sheet. The management argues that they need the

excess debt capacity because they value financial flexibility. Under which of the following circumstances are you most likely to go along with that argument?

- a. Company has limited access to capital markets, has negative excess returns and is uncertain about its future investment needs.
- b. Company has limited access to capital markets, has positive excess returns and is reasonably certain about its future investment needs.
- c. Company has limited access to capital markets, has positive excess returns and is uncertain about its future investment needs.
- d. Company has easy access to capital markets, has negative excess returns and is uncertain about its future investment needs.
- e. Company has easy access to capital markets, has negative excess returns and is reasonably certain about its future investment needs.
- f. None of the above