



## **FIN 366: INVESTMENTS**

### **EQUITY VALUATION: FREE CASH FLOWS AND COMPS**

### **CRITICAL THINKING & CONCEPTUAL QUESTIONS**

1. Why do we add back the depreciation expense when calculating the free cash flow to equity holders?
2. Explain why an increase in net working capital is considered a cash outflow.
3. Describe the relationship between FCFF and FCFE. How do you get from one to the other?
4. Why do we discount cash flows and not profitability measures (like net income or earnings per share) to determine an estimate of the intrinsic value of a share?
5. What are the discount rates associated with the DDM, FCFF, and FCFE methods? Why do they have different discount rates and why is it important that the discount rates be matched to their appropriate cash flows?
6. Explain how a “cost” of equity or debt to the firm is the same as a “required return” on equity or debt to an investor.
7. What do we use for a firm’s cost of debt?
8. Describe the WACC and how it represents a “blended” cost of capital to the firm. Why is it important that multiple costs of capital be considered?
9. Is the cost of equity or the cost of debt usually higher for a firm? Why?
10. Why do we multiply the cost of debt, EBIT, and interest expense by  $(1 - t_C)$ ?
11. Growth stock ratios generally imply a high price relative to firm fundamentals. Why might an investor be comfortable with paying a high price given a firm’s low fundamental value(s)?
12. Why is it important to consider the industry or competitors when evaluating a stock’s P/E ratio and other ratios?
13. Explain why the computations from DCFs and the DDM technically result in *intrinsic value estimates* but not the actual *intrinsic value* of a firm.
14. All else equal, what happens (and *why*) to the intrinsic value estimate of a stock if:
  - a. The discount rate increases
  - b. Beta increases
  - c. The firm’s leverage increases
  - d. The firm’s terminal growth rate increases
  - e. The firm’s cost of debt increases
  - f. Forecast growth rates increase
  - g. Forecast FCFE or FCFF increases
15. Explain the unlevering/relevering beta process and why it is necessary in order to obtain the cost of equity.
16. Does the beta normally increase or decrease when we unlever? Why?

17. If the industry debt-to-equity ratio you use to relever a stock's unlevered beta is *higher* than the firm's actual debt-to-equity ratio, do we expect the stock's relevered beta to be *higher or lower* than the stock's original beta?
18. What has been the approximate range of the P/E of stocks in the S&P 500 since 1990? What is the market's approximate P/E ratio now?
19. Describe earnings management and some ways in which a firm might manipulate their profitability. Why is this a concern for comp analysis? Why is it a concern for DCF valuation?
20. Several ratios consider "book" values in their computation. What is "book" value and how does it differ from the "market" value?
21. How do we determine if a ratio or valuation measure is at an acceptable or reasonable level for a firm?
22. What is a firm's liquidation value? How should an analyst compute and use the firm's liquidation value?
23. On which financial statement (balance sheet, income statement, or statement of cash flow) do we find the following inputs for FCFE and FCFF?
  - a. EBIT
  - b. Depreciation
  - c. Capital expenditures
  - d. Net working capital
  - e. Debt
24. Explain the pros and cons of the TTM P/E and forward P/E. When might using one be better than using the other?
25. How does an investor use ratios to compute an implied price for a firm? How might an investor use this implied price to make an investing decision?
26. Describe some challenges associated with choosing "comparable" firms. What are some ways in which we can determine if a firm is comparable to another?
27. What causes there to be "ranges" of intrinsic value estimates in a football field analysis? How does an analyst go about producing these ranges? How would one know what is a reasonable range?
28. Describe how an investor might "work backwards" when conducting a DCF to determine if a stock is over or under valued.
29. **CHALLENGE** FCFE represents the cash flow to equity holders while FCFF represents cash flows to the entire firm. How is it possible for the FCFE to be *bigger* than FCFF?
30. **CHALLENGE** Perhaps the most famous investment banking interview question is "walk me through the steps in conducting a DCF analysis." Therefore, *walk me through the steps in conducting a DCF analysis*, from the computation of the cash flows to the use of the appropriate discount rate.
31. **CHALLENGE** An **exit multiple** is a ratio often used in valuation. For example, a popular exit multiple is the EV/EBITDA ratio: the firm's **enterprise value** (or firm's market cap plus debt minus cash) divided by **EBITDA** (earnings before interest, taxes, depreciation, and amortization). If you wanted to use the EV/EBITDA multiple in your DCF valuation, where would you "plug in" this number in the formula? Why?

