

Homework Problem #1 Financial Statements Analysis

APEC 4501

Spring 2009

Objective: To prepare proforma financial statements, to analyze the effect of sales growth on performance, and to value a firm using Excel.

Excel features used: Data Tools/Data Tables, graphing, formatting, comments, If statements

Reading: Benninga, Ch. 3(103-122); Ch. 30 (766-770).

Assignment:

Retrieve the Excel template for this assignment from the class webpage. This spreadsheet provides the same financial statement format as found in Benninga, p. 107. Rename the spreadsheet as **Proforma**. Complete the following tasks using that spreadsheet and the accompanying discussion in Benninga, Ch. 3.

1. Enter formulas to project the balance sheet and income statement for year 1. Use those formulas to complete the financial projections for years 2-5. Verify your results with those shown in Benninga, p. 111.
Note: As you are completing the spreadsheet for year 1, if it appears that the values are incorrect due to circular referencing of cells (which is common in financial statements where several values are determined simultaneously) you can overcome this problem by using *Excel Options/Formulas/ Calculation Options* to activate the Enable Iterations Calculation box. For discussion of this problem see Benninga, p. 109.
2. Prepare a table that calculates the free cash flow (FCF) for the firm in years 1-5. Verify your results with those in Benninga, p.112.
3. Next prepare a table that values the firm and its equity. Verify your results with those in Benninga, p. 114. Insert a *Comment* into this table that explains how the terminal value cell is calculated. Note: Insert other comments into the spreadsheet where you think they provide useful explanations of the concepts and/or the spreadsheet calculations.
4. Next prepare a “one-way table” that calculates the value of firm equity for different rates of sales growth as shown in Benninga, p. 117. Note: To do this use *Data Tools/What If Analysis/Data Table* (see Benninga, Ch. 30). Develop a graph that shows the relationship between the rate of sales growth and the value of firm equity as shown in Benninga. Briefly discuss what the table and graph show.
5. Next prepare a “two-way table” that again uses Data Tools to calculate the value of firm equity for different combinations of sales growth and weighted average cost of capital (WACC). Place the sales growth rate in the first column of the table and the WACC in the first row of the table, as shown in Benninga, p. 118. Briefly discuss what the two-way table shows.

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6. Submit your completed spreadsheet for grading.

For next time:

Go to the class web page and review the “farm finance scorecard” and related risk rating files that are found under the homework assignment on “credit scoring.”