

FINA 4330

Stock Valuation Project

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Obtaining financial data

(1) Choose a public corporation to value in this project (do not choose financial or utilities companies).

(2) Download the Value Line information sheet. Go to uh library webpage, click on Databases, click on the letter V under the Alphabetical list, and click on Value Line. Once in the Value Line web page, go to “Lookup Company” on the left side → write the company name in the box following “Search for” → select “Search by Company” (note that Search by Ticker is the default) → click “Search” → click on the PDF file to download.

(3) Calculate the firm’s cash flows for the years 2000-2010 (follow the steps we introduced in class). A few tips: (a) to calculate Capital Expenditures refer to Capital Spending per-share and multiply by the number of share outstanding, (b) to calculate Operating Expenses multiply Sales by (1- operating margin).

(4) What is the average annual growth in sales over this period? To calculate the average growth rate, first calculate annual growth for each year, and then calculate the average growth over the years. In particular, for year 2000 do not calculate a growth rate, for year 2001 subtract last year sales from current sales and divide by last year sales in order to get sales growth between year 2000 and year 2001. Repeat the latter for years 2002-2010.

(5) Calculate the firm’s expected return on equity r_E while applying the CAPM formula and assuming a risk free rate of $r_f = 5\%$ and an expected return on the market of $r_m = 15\%$. Information about the beta of the firm’s equity can be found at the top left corner of the Value Line data sheet.

(6) Calculate the firm’s Weighted Average Cost of Capital (WACC):

$$WACC = r_D(1-t)\left(\frac{D}{V}\right) + r_E\left(\frac{E}{V}\right).$$

To find the value of the firm’s equity (E), multiply its current share price by the number of shares outstanding. For the value of the firm’s debt (D) use the value of total debt liabilities. Finally use the firm’s current income tax rate (t) in your calculation.

Stock Valuation

(7) Suppose that the firm’s future sales will grow at a constant rate for the next ten years and then will continue to grow at a long-run growth rate forever. Justify your assumptions about the growth rates you use. Follow the steps introduced in class to calculate the present value of all future cash flows using WACC.

(8) Calculate the estimated value of equity by subtracting the value of debt and adding the value of excess cash to the present value you have calculated in (7). Divide the estimated value of equity by the number of shares outstanding in order to calculate the implied stock price. Is the implied stock price equal to the current market price of the firm’s shares?

(9) To understand how sensitive your valuation is to your assumptions, calculate the stock price in the following four cases: the long-run growth is higher/lower by 0.5%, and beta of equity is higher/lower by 0.1.

(10) What growth rate in sales (for the next ten years) is consistent with the current stock price?