

Problems with Valuations of Companies

Begin with doing a percentage of sales analysis

Prior to forecasting FCFF, you should first do a percentage of sales analysis wherein the goal of this analysis is to see if your various line items in the income statement for your company are "comparable" to your major competitors and/or the industry. (You need to do a similar percentage of sales analysis for your competitors). This exercise focuses on whether

- Managers are able to contain costs. The COGs/Sales, SGA/Sales, R&D/Sales, Other Operating Expenses/Sales, etc. allows you to calculate expected EBITDA given your anticipated growth rate in sales.
- Relationship of capital expenditures to sales over time (is it simultaneous, a one year lag, or a two year lag). This is a required input if you use Damodaran's FCFF valuation models.
- Relationship of working capital to sales over time. Using this relationship, you can calculate the change in non-cash working capital if you know sales growth. This is also a required input if you use Damodaran's FCFF valuation models.

Question: Why not simply grow FCFF by the growth rate in FCFF as most of you have done?

This presupposes that your current COGs/Sales, SGA/Sales, etc remain at their current "relative" levels as a proportion of sales going forward. If your firm has higher costs relative to its major competitors, one strategy is to lower costs e.g. cost containment.

Errors and Omissions in Doing Relative Valuation

- Please put the ticker symbol for your firm
- No relative valuation
- No enterprise value multiples
- Forgot to subtract out the debt after obtaining the enterprise value for your firm based on the average of your comparables to obtain the equity value per share.
- No equity value multiples using forecasted earnings per share
- It's not clear whether the CAGR used is the historical or the analysts expected CAGR.

- How is book value calculated? Is it with or without intangibles? Please refer to the lecture notes for the two definitions of book value.
- In averaging the multiples of your comparables, both the mean and median should be calculated. This is especially the case if you have outliers or the distribution of the multiple doesn't fall within a "narrow" range
- No decision: is your firm currently overvalued, undervalued or correctly priced. Also, be sure to show the current price per share of your firm.
- No metrics used for your particular industry e.g., value per subscriber, same store sales, sales per square foot, revpar, passenger miles, etc.

Errors and Omissions in Doing Absolute Valuation (Discounted Cash Flows)

- No absolute valuation
- In doing the FCFF calculations, please show the components of FCFF e.g., operating cash flow (EBITDA - Taxes), CapEx, and the change in non-cash working capital.
- To calculate the terminal value, e.g., FCFF in the constant growth period, set CapEx = Depreciation and Amortization.
- You need to have a page stating all financial assumptions associated with each scenario e.g., growth rate, cost savings, etc. You need to justify your assumptions. Merely showing the assumption sheet in Aswath Damodaran's spreadsheet is NOT enough.
- No indication is given if the beta is a built up beta or the historical beta for your firm. If you use a built up beta, please show your work including what firms you used and what their betas are.
- In calculating the built up beta, the Damodaran website which reports the average beta of all firms in an industry is used to produce an unlevered beta. Use this only if firms are similar to your subject firm. If firm sizes differ and firms are in different stages in their "life cycle", the resulting average beta could be misstated.
- No indication is given as to how the cost of debt is calculated. Where did you get the spread over treasuries? It should be using Bridge.
- You need to calculate the debt to total capital ratio for the current period as well as the prior periods to see if the firm's capital structure is changing over time. Also, calculate the optimal "target" capital structure. This is a necessary input in Aswath Damodaran's model.

- The growth rate from using the Dupont model is the sustainable growth rate in EARNINGS per share. As such, you shouldn't use it to grow your SALES. Use the expected growth rate in sales. Also, "sustainable" means that it is the EPS growth rate based on existing assets. Going forward, if you purchase new assets or spin off assets ala your strategic options, the sustainable growth rate in EPS will change.
- You do NOT discount cash flows to the equityholder e.g., free cash flow to equity (FCFE) using the weighted average cost of capital (WACC). The WACC is the cost of borrowing from both DEBT and equity holders. Use the cost of equity to discount cash flows to the equityholder. Use the WACC to discount cash flows to the firm (FCFF).
- No indication is given of what the riskfree rate is in calculating the CAPM. Is it a 10 year rate?
- Before using a two stage dividend discount model or FCFF model, you must first determine if the company is growing at a faster rate than the S&P500 or your proxy for the economy. If your firm is only growing as fast as the economy, use the constant growth model.

Errors and Omissions in Doing Net Present Value for Scenarios

- No NPVs calculations for your scenarios