Advanced Corporate Finance
Prof. Mathias Kronlund
Market Information Lab Exercise
Due Date: March 26, 2018

Pick a publicly traded company where the first letter of the company's name is the same as the first letter of your last name (see, e.g. http://www.ftserussell.com/membership-russell-1000 for a list of the 1000 largest companies in the U.S.). However, make sure the company you pick does *not* belong to the financial sector (applying standard valuation techniques to financial firms can be a bit tricky because of these firms' non-typical assets and capital structures).

For this exercise, you will use Capital IQ to obtain financial information about that company (plus information for a few comparable companies) and do a valuation analysis. During the lab session, we will first learn how to find and download the necessary data from CapitalIQ to do this analysis for one "example company". You will then get to do the same analysis for your company. There may not sufficient time during the lab session for you to fully finish all calculations, so think carefully about what data you will need for each question and aim to at least download most of that data before the class session is over. If you find you need more data after the lab session, you can also visit the MIL on your own or look up data from other sources (e.g., Yahoo Finance, SEC Edgar, etc.) to complete your analysis.

Part 1 - DCF

Value the company using DCF. Describe throughout what method/data you use and why.

a) Project sales of the company over next *seven years*. You can do so using either analyst forecasts of future sales (analysts don't always make sales forecasts, or at least not this far in the future), by projecting based on past sales, using your own view on the industry growth, or ideally, based on a combination of these methods.

b) Project an EBITDA/Sales margin for each year of the forecast period based on past margins, analyst estimates of future profits, your own view of the industry, or some combination of these methods. Apply this margin to predict EBITDA for the forecast period.

c) Estimate Free Cash Flows for the forecast period. To do this, you will need to predict future depreciation, capital expenditures, and net working capital.[1] You can assume that future tax rates will be 21%.

d) What long run growth rate of Free Cash Flows would you use to calculate the terminal value of the company? Also describe your reasoning behind this growth rate.

e) What is WACC of the company? You can estimate WACC using the following method: First look up or calculate the equity beta for the company and apply CAPM to get the cost of equity capital. To estimate the cost of debt capital, first see if your company has any bond ratings. If it does have a rating, you can estimate a debt beta based on Table 1 below (if the firm has several bonds with different ratings, you can use the average rating or the rating for "unsecured senior" bonds). If the firm has no bonds ratings, you will need to guess a rating based on your assessment of the riskiness of the firm's debt (e.g., based on the firm's interest coverage or market leverage) to get the debt beta. Then apply CAPM to calculate the debt cost of capital based on the debt beta. Finally, calculate WACC using the cost of equity capital and the after-tax cost of debt capital.

[1] You can, for example, assume that the level of net working capital will scale with revenues. Depreciation and especially capital expenditures are often harder to forecast well, although they also tend to scale with the size of the company.

Note: You can assume a risk-free rate of 2%, a market risk premium of 5%, and a corporate tax rate of 21%.

f) Calculate the present value of the Free Cash Flows (including the terminal value using a growing perpetuity formula based on your answers in (d) and (e)).

g) Using your answer in (f), and the firm's current net debt, calculate the estimated value of equity and the stock price.

h) Perform sensitivity analysis with respect to margins (b), the long run growth rate (d), your estimated equity beta (e), and market risk premium (e).

Part 2 - Comps

Choose the three most suitable comparable firms in your firm's industry, and then:

a) Value your company using a multiple that involves the equity value or stock price
b) Value your company using a multiple that involves the enterprise value

How do these estimates compare to your answer in Part 1?

Part 3 – Final Word

What's your best estimate of the company's stock price? Discuss how you arrive at this estimate, and any important assumptions you make.

Does the company currently look overvalued, undervalued, or just about right (e.g., within a few percent of your estimate)?

Part 4 – Survey

Report your results in this survey: https://goo.gl/forms/8NjWcXtvJ57enl7f1

Note: In addition to your writeup, you must answer this survey to get a grade for this assignment!

Table 1: Ratings and estimates of debt beta

Rating	**A and above**	**BBB**	**BB**	**B**	**CCC and below**
Debt Beta	<0.05	0.1	0.17	0.26	0.31