VALUATION: PROJECT

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Project Description

- This project is designed to apply the valuation techniques we learn in class on companies in the real world.
- It is a group project, with each person in the group picking one company to value.
- The project analysis is due in two parts:
  - The discounted cash flow valuations are due midway through the semester on April 3, at 5 pm. They will not be graded, but they will be reviewed and returned with comments.
  - The entire project report is due by 5 pm on the last day of class (May 11).

Step 1: Pick the companies

- Pick a group of companies (one for each person in the group), making sure <u>you have at least</u>
  1. one company which has negative earnings in the most recent financial period (year-to-date, if available or most recent financial year (if not)).
  2. one company which has high-growth potential (Look for companies whose revenues are expected to grow > 25% over the near future; the could be losing money, in which case you could kill two birds with one stone.)
  3. one non-U.S. company, preferably in the local currency and the local listing.
  4. one service company (it can be a retail firm, financial service firm etc.)
- While each of you is responsible for the assessment of your company, you also have a group responsibility to take the rest of the group with you.

Step 2: Intrinsic Valuation

- Develop your narrative for this company. (Give me your story of how you see your company evolving over time, given what you know about it, its market and the competition)
- Tie your narrative to key numbers that you will be using in your valuation.
- Value the stock in each company using a discounted cash flow model.
- Evaluate how sensitive your value estimates are to changes in your narrative.

Parts 1 & 2 are due midway through the semester on April 3

Step 3: Value relative to comparables

- Prepare a list of "comparable" companies, using criteria that you think are appropriate
- Choose a multiple that you will use in comparing firms across the group. (You might have to try a number of multiples out before making this choice)
- Evaluate your company against the comparable firms using the multiple that you have chosen for your valuation.
  - using simple techniques (do a qualitative analysis adjusting the average for comparable firms)
  - using a sector regression (a regression across firm in your sector). You can download the data on comparable firms using S&P Capital IQ.

Step 4: Value relative to the market

- Using the latest regression posted for the market on my web site, and the multiple you chose in step 3, evaluate whether your firm is under or over valued.
  - If you have a non-U.S. company which has an ADR listed on it, you can use the U.S. regression
  - While I will not require it, I will be very impressed if you run a regression of the multiple in your foreign market (use the 50 largest firms, if you want to reduce your work load) against the variables that determine that multiple.

Step 5: Using Option Pricing Models

- Using the option pricing model, value equity in your firm as a liquidation option: Do this only if
  - Your firm is and has been losing money for a while
  - Your firm has high debt (a debt to capital ratio > 50%)
  - Your firm is still being run by its equity investors and has not been forced in receivership or bankruptcy
- If it does not fit these criteria, do not use the option pricing model.

Step 6: Final Value Estimate and Recommendation

- Before you make your recommendation, check whether anything that has happened during the period of your analysis has changed your narrative and your valuation.
- Consider the values you have obtained from the discounted cash flow, relative and option valuation models.
  - How would you reconcile the different estimates of value?
  - Make a final recommendation on your stock. Your choices are buy, sell and hold (but only if you absolutely get forced into that choice)