Assignment 12

Stock Valuation

The purpose of this assignment is to practice stock valuation. Use the firm that you have been following throughout the course. Most of the information can be found on Yahoo! Finance. You can go to the firm's website and look at its latest annual report for information on past dividends, if needed.

Group:

Section:

1. In this question, you will calculate a reasonable price for the stock based on its dividend payouts. Begin by completing the following table.

Ticker	
Shares	
Price	
EPS (estimate, next year)	
Dividends per share	
Dividend payout ratio	

Next, compute the average annual percent change in dividends over the last five years, i.e. the historical growth rate of dividends from the first dividend (D_1) to the last (D_5). (Show your work in the space below).

Now we are going to calculate a theoretical price for the stock. To do so, we will need a discount rate. Choosing a discount rate is tricky, as we will see soon. Rough estimates of reasonable discount rates for stocks are in the range of 6 to 14%. For now, choose a number from the following table.

Risk	Discount rate
Above average	12%
Average	10%
Below average	8%

Finally, use the historical growth rate for dividends you calculated and the discount rate chosen above, and calculate the expected price of your firm's stock assuming it's a constant growth stock. Assume you are considering purchasing the stock on at the end of its fiscal year, so that you are paying for dividends that start with next year's dividends—ignore the fact dividends are paid quarterly, not annually. If you get a negative number, explain why.

2. This question asks you to consider how the firm's stock price relates to its earnings. Using the *actual* market price for the stock and the analysts' forecast for next year's EPS, decompose the value of the stock into value from current operations, and value from future investment/ growth opportunities (NPVFI, or PVGO). Use the following formula:

$$P_0 = \frac{EPS_{\text{next year}}}{r} + NPVFI \;\Rightarrow NPVFI =$$

$$\frac{NPVFI}{P_0} = \qquad \%$$

$$\frac{EPS/r}{P_0} = \qquad \%$$