Multi Period Dividend Discount Model

Multi Period Dividend Discount Model

- This is an evolution of the Single Period Dividend Discount Model
- We assume that the investor is going to hold the stock for a number of years and we need to discount the cash flows from the dividends as well as the estimated selling price

Multi Period Dividend Discount Model

- This looks more like a DCF
- The discount rate remains the same but we can vary the estimates of the dividend in each period
- The further out the model goes, the harder it becomes to estimate the eventual selling price with any accuracy

Multi Period Dividend Discount Model

- The formula is shown here…

- $V_0 = (D_1/(1+r)^1)+(D_2/(1+r)^2)+\ldots(D_n/(1+r)^n)+(P_n/(1+r)^n)$

Multi Period Dividend Discount Model

- Lets work through a simple example…

Multi Period Dividend Discount Model

- Peach Corp is trading at $100
- You want to purchase the stock and hold it for three years before selling
- You expect the Corp to pay dividends of $3.00 in year 1, $3.50 in year 2 and $3.75 in year 3.
- You forecast a selling price of $120
- The cost of capital is estimated to be 6%

Multi Period Dividend Discount Model

- We place the figures in our formula

- $V_0 = (\$3.00/(1+0.06)^1)+(\$3.50/(1+0.06)^2)+(\$3.75/(1+0.06)^3)+(120/(1+r)^3)$
- $V_0 = (\$2.83)+(\$3.11))+(\$3.15)+(100.75)=109.84$

Multi Period Dividend Discount Model

- The result of the calculation in the model can be compared to the market price of the stock to see if the intrinsic value suggest under or over valuation of the stock in the market

Multi Period Dividend Discount Model

- As Peach Corp is trading at $100, the intrinsic value of $109.84 suggests that it is undervalued and we should make the investment

Multi Period Dividend Discount Model

- The model assumes that the periods are the same length
- The model is not suitable for companies for whom the rates of return are lower than the dividend growth rate

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