Answer on Question #51499, Economics, Finance

Sweatshirt Inc's ROE is 20%. It's dividend payout ratio is 70%. The last dividend, just paid, was RM2.00. If its dividends are expected to grow at the company's internal growth rate indefinitely, what is the current value of the company's common stock if its required return is 18%?

Solution:

In given problem we have the following data. Return on Equity = 20%, Dividend payout ratio = 70%, Dividend = 2, Required return rate = 18%. We need to find Common Stock.

Firstly we calculate the Net Income. We apply the following formula.

$$\text{Dividend Payout Ratio} = \frac{\text{Total Dividends}}{\text{Net Income}}$$

From the noted above formula, we can find the value of Net Income.

$$\text{Net Income} = \frac{\text{Total Dividends}}{\text{Dividend Payout Ratio}}$$

Now we substitute into the formula given values according to the condition of the task.

$$\text{Net Income} = \frac{2}{70\%} = \frac{2}{0.7} = 2.85714$$

Thus, we find the value of the Net Income which is equal to 2.857.

Then we can find the value of Equity from the formula noted below.

$$\text{Return on Equity} = \frac{\text{Net income}}{\text{Shareholder's Equity}}$$

From the formula, we can express the Equity.

$$\text{Shareholder's Equity} = \frac{\text{Net income}}{\text{Return on Equity}}$$

We substitute the given values into the formula.

$$\text{Shareholder's Equity} = \frac{2.857}{0.2} = 14.2857$$

Now we can determine the current value of the company's common stock. We apply the required return equal to 18% and the same method of calculation.

$$\text{Company's common stock} = \frac{2.857}{18\%} = \frac{2.857}{0.18} = 15.873$$

Finally we can note, if the company's required rate of return is equal to 18% then the value of the stock is RM 15.873.