

EXAMPLE OF THE EARNINGS MULTIPLIER MODEL

Bronze Ltd currently retains 80% of its earnings which are R5 a share this year. It earns a ROE of 20%. Assuming a required rate of return of 18%, how much would you pay for Bronze Ltd on the basis of the earning multiplier model?

1. R5.80
2. R40
3. R50
4. R58

Step 1: Calculate the P_0/E_1 .

$$\begin{aligned} \text{Growth rate } (g) &= RR \times ROE \\ &= 0.80 \times 20\% \\ &= 16\% \end{aligned}$$

$$\begin{aligned} \frac{P_0}{E_1} &= \frac{D_1/E_1}{k - g} = \frac{1 - RR}{k - g} \\ &= \frac{0.20}{0.18 - 0.16} \\ &= 10 \times \end{aligned}$$

Step 2: Calculate the price of Bronze Ltd.

$$\begin{aligned} P_0 &= \frac{P_0}{E_1} \times E_1 \\ &= 10 \times R5.80 \\ &= R58 \end{aligned}$$

Where:

$$\begin{aligned} \text{Dividend payout } (D/E) &= 1 - \text{Retention rate } (RR) \\ &= 1 - 0.80 \\ &= 0.20 \end{aligned}$$

$D = \text{dividends per share}$

$E = \text{earnings per share}$

NB: Dividend payout is the percentage of the firm's earnings that are being out paid out as dividends.

$$E_1 = E_0(1 + g)$$

$$= 5(1.16)$$

$$= R5.80$$

Refer to Marx 2013: 154