

Dividend Decision

Example :- 1 Walter Model

$$P = \frac{D + (E - D) r / k}{k}$$

a) Payout ratio = 20%.

$E = \text{Rs. } 10$, $r = 15\%$, $k = 12.5\%$.

$$P = \frac{2 + (10 - 2) 0.15 / 0.125}{0.125}$$

$$= \frac{11.60}{0.125} = \underline{\text{Rs. } 92.80}$$

b) Payout ratio = 100%.

$$P = \frac{10 + (10 - 10) 0.15 / 0.125}{0.125}$$

$$= \frac{10}{0.125} = \underline{\text{Rs. } 80}$$

c) Payout ratio = 0%.

$$P = \frac{0 + (10 - 0) 0.15 / 0.125}{0.125}$$

$$= \underline{\text{Rs. } 96}$$

Note: $r > k$.

Dividend Pay out ratio decreases price per equity share increased.

Example 2:- Gordon Model

$$P_0 = \frac{E_1 (1-b)}{k - br}$$

$E_1 = \text{Rs } 10$, $b = (1-0.5) = 0.5$, $k = 10 \text{ percent}$

a) if r is 15% .

$$\begin{aligned} P_0 &= \frac{10 (1-0.5)}{0.10 - (0.5 \times 0.15)} \\ &= \frac{5}{0.025} = \underline{\text{Rs } 200} \end{aligned}$$

b) if r is 10% .

$$\begin{aligned} P_0 &= \frac{10 (1-0.5)}{0.10 - (0.5 \times 0.10)} \\ &= \frac{5}{0.05} = \underline{\text{Rs } 100} \end{aligned}$$

c) if r is 8% .

$$\begin{aligned} P_0 &= \frac{10 (1-0.5)}{0.10 - (0.5 \times 0.08)} \\ &= \underline{\text{Rs } 83.33} \end{aligned}$$

Note:-

$r > k$ Dividend decreases price increases.

$r = k$ price Constant

$r < k$ Dividend decreases price decreases.

Practice Example

(i) Walter Model

$$P = \frac{D + (E - D) r / k}{k}$$

$$E = \text{Rs } 10, r = 15\%, k = 10\%, D = \text{Rs } 4$$

$$P_0 = \frac{4 + (10 - 4) 0.15 / 0.10}{0.10}$$

$$= \frac{13}{0.10} = \underline{\text{Rs. } 130}$$

(ii) Gordon Model

$$P_0 = \frac{E_1 (1 - b)}{k - br}$$

$$= \frac{10 (1 - 0.6)}{0.10 - (0.6 \times 0.15)}$$

$$= \frac{4}{0.01} = \underline{\text{Rs. } 400}$$