Dividend Decision II

Gordon Model

Gordon Model

- Myron J. Gordon (1962) is the another model of share valuation which is based on the idea that dividend policy and value of a share are interrelated.

- This model is based on the principle of dividend capitalisation.

- **Assumptions:**

- The firm has an infinity life.

- The rate of return on the firm's investment and the cost of capital for the firm remains constant.

- The capital is totally equity financed.

Assumptions….

- Retained earnings are the only source of financing of future investment of the firm.
- Tax does not exist.
- Retention ratio once decided remains fixed.

- Growth rate of the firm is the product of retention ratio and the rate of return.

- Cost of capital is more than the growth rate of firm.

The Gordon formulae:

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

where
P_0 = the price per share at the end of year 0,
E_1 = the earnings per share at the end of year 1,
(1 - b) = the fraction of earnings the firm distributes by way of dividends,
b = the fraction of earnings the firm retains,
k = the rate of return required by the shareholders,
r = the rate of return earned on investments made by the firm, and
br = the growth rate of earnings and dividends.

An Illustration

Rate of Return	r=25%	r=20%	r=15%
Cost of equity	k=20%	k=20%	k=20%
EPS	E=Rs. 10	E=Rs. 10	E=Rs. 10
if b = 1.0	= [10*(1-1)]/[0.20-(1*0.25)] = 0	0	0
if b = 0.5	= [10*(1-0.5)]/[0.20-(0.5*0.25)] =66.67	50	40
If b = 0.25	54.5	50	46.2
If b = 0	50	50	50
	r>k	r=k	r<k

Implications of the model

- **Implications of the model are same as Walter Model:**
- When r > k, the market value of a share increases as the dividend payout ratio decreases.
- When r = k, the market value of a share does not change with the change in the dividend payout ratio.
- When r < k, the market value of share increases as the dividend payout ratio increases.

Traditional approach: Graham and Dodd Model (1951)

- According to approach, the investors give more weightage to those firms which give a regular liberal dividend to its shareholders.
- And, such firms have higher market value of their of share as per Graham and Dodd.
- They said that market price of a share is some multiple of dividend and retained earnings.
- However, they gave higher weightage to the dividend as compared to retained earnings.
- The model is very simple $P = m[D+(E/3)]$
- P is the market price of the share; m is the value of common multiplier; D is the dividend per share; E is the earning per share.

Traditional approach

- If we further modify this equation, then, it is

$$P = m\left[D + \frac{D+R}{3}\right] = m\left[\frac{3D+D+R}{3}\right]$$

$$= m\left[\frac{4D+R}{3}\right]$$

- The main argument of the traditional approach that liberal dividend policy has favourable impact on the market price of the share.

If you have any query

nagendrainsearch@gmail.com