SOS POLITICAL SCIENCE AND PUBLIC ADMINISTRATION
MBA FA 202
SUBJECT NAME: FUNDAMENTALS OF FINANCIAL MANAGEMENT
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UNIT-V

TOPIC NAME: GORDEN'S MODEL

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Definition: The **Gordon's Model**, given by Myron Gordon, also supports the doctrine that dividends are relevant to the share prices of a firm. Here the **Dividend Capitalization Model** is used to study the effects of dividend policy on a stock price of the firm.

Gordon's Model assumes that the investors are risk averse i.e. not willing to take risks and prefers certain returns to uncertain returns. Therefore, they put a premium on a certain return and a discount on the uncertain returns. The investors prefer current dividends to avoid risk; here the risk is the possibility of not getting the returns from the investments.

But in case, the company retains the earnings; then the investors can expect a dividend in future. But the future dividends are uncertain with respect to the amount as well as the time, i.e. how much and when the dividends will be received. Thus, an investor would discount the future dividends, i.e. puts less importance on it as compared to the current dividends.

- Gordon's theory on dividend policy is one of the theories believing in the 'relevance of dividends' concept.
- It is also called as 'Bird-in-the-hand' theory that states that the current dividends are important in determining the value of the firm.
- Gordon's model is one of the most popular mathematical models to calculate the market value of the company using its dividend policy.
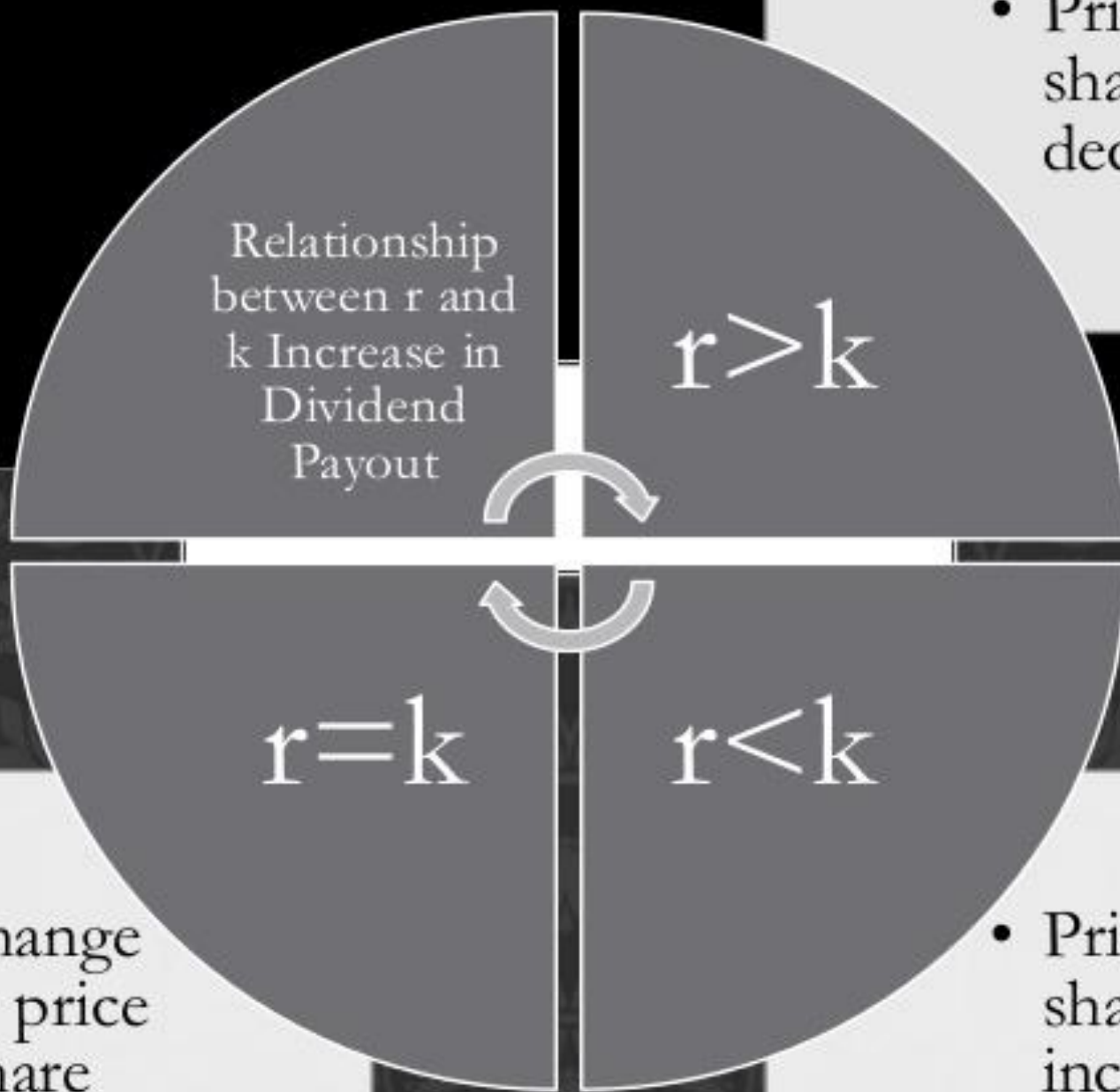
Crux of Gordon's Model

Myron Gordon's model explicitly relates the market value of the company to its dividend policy.

The determinants of the market value of the share are the perpetual stream of future dividends to be paid, the cost of capital and the expected annual growth rate of the company.

Relation of Dividend Decision and Value of a Firm

The Gordon's theory on dividend policy states that the company's dividend payout policy and the relationship between its rate of return (r) and the cost of capital (k) influence the market price per share of the company

- Price per share decreases

Relationship between r and k Increase in Dividend Payout

r>k

r=k

r<k

- No change in the price per share

- Price per share increases

ASSUMPTIONS OF THE MODEL
GORDON'S MODEL IS BASED ON THE FOLLOWING ASSUMPTIONS:

- The model assumes that the company is an all equity company, with no proportion of debt in the capital structure.

No Debt:

- The model assumes that all investment of the company is financed by retained earnings and no external financing is required.

▪ **No External Financing:**

- The model assumes a constant Internal Rate of Return (r), ignoring the diminishing marginal efficiency of the investment.

▪ **Constant IRR:**

- The model is based on the assumption of a constant cost of capital (k), implying the business risk of all the investments to be the same.

▪ **Constant Cost of Capital:**

- Gordon's model believes in the theory of perpetual earnings for the company.

▪ **Perpetual Earnings:**

- Corporate taxes are not accounted for in this model.

▪ **Corporate Taxes:**

- The model assumes a constant retention ratio (b) once it is decided by the company. Since the growth rate (g) = b*r, the growth rate is also constant by this logic.

▪ **Constant Retention Ratio:**

- Gordon's model assumes that the cost of capital (k) > growth rate (g). This is important for obtaining the meaningful value of the company's share.

▪ **K>g:**

Gordon's formula to calculate the market price per share (P) is

$$P = \{EPS * (1-b)\} / (k-g)$$

Where,

P = market price per share

EPS = earnings per share

b = retention ratio of the firm

(1-b) = payout ratio of the firm

k = cost of capital of the firm

g = growth rate of the firm = b*r

EXPLANATION

The above model indicates that the market value of the company's share is the sum total of the present values of infinite future dividends to be declared. The Gordon's model can also be used to calculate the cost of equity, if the market value is known and the future dividends can be forecasted.

Implications

- Gordon's model believes that the dividend policy impacts the company in various scenarios as follows:

Growth Firm:

- A growth firm's internal rate of return (r) > cost of capital (k). It benefits the shareholders more if the company reinvests the dividends rather than distributing it. So, the optimum payout ratio for growth firms is zero.

Normal Firm:

- A normal firm's internal rate of return (r) = cost of the capital (k). So, it does not make any difference if the company reinvested the dividends or distributed to its shareholders. So, there is no optimum dividend payout ratio for normal firms.

- However, Gordon revised this theory later and stated that the dividend policy of the firm impacts the market value even when r=k. Investors will always prefer a share where more current dividends are paid.

Declining Firm:

- The internal rate of return (r) < cost of the capital (k) in the declining firms. The shareholders are benefitted more if the dividends are distributed rather than reinvested. So, the optimum dividend payout ratio for declining firms is 100%.

CRITICISM OF GORDON'S MODEL

Gordon's theory on dividend policy is criticised mainly for the unrealistic assumptions made in the model.

- Constant Internal Rate of Return and Cost of Capital: The model is inaccurate in assuming that r and k always remain constant. A constant r means that the wealth of the shareholders is not optimized. A constant k means the business risks are not accounted for while valuing the firm.

- No External Financing: Gordon's belief of all investments being financed by retained earnings is faulty. This reflects sub-optimum investment and dividend policies.

SUMMARY

Gordon's theory of dividend policy is one of the prominent theories in the valuation of the company. Though it comes with its own limitations, it is a widely accepted model to determine the market price of the share using the forecasted dividends.

THANK YOU