DIVIDEND THEORIES

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Determinants of Dividend Policy

- Expectations of Shareholders
- Dividend Clientele
- D/P Ratio
- Financial Requirements of the company
- Liquidity position of the firm
- Stability of dividends
- Managements attitude towards control
- Magnitude and trend of earnings of the firm
- Age and growth prospects of the firm
- Legal constraints and contractual requirements
- Tax policy of Govt.
- Capital Market and overall economic condition.

DIVIDEND THEORIES

- There are three main categories advanced:

1. Dividend relevance theories
2. Dividend irrelevance theories
3. Dividend & uncertainty

DIVIDEND RELEVANCE THEORIES

- These are theories whose propagators argue that the dividend policy of a firm affects the value of the firm. There are two main theorists:
  - James E. Walter (Walter's model)
  - Myron Gordon (Gordon's model)

Walter's Model

- Shows relationship between a firm's rate of return *r* and its cost of capital *k*. it is based on the following assumptions:

1. Internal financing – the firm finances all its investments through retained earnings; debt or new equity is not issued.
2. Constant return and cost of capital – the firm's rate of return, *r*, and its cost of capital *k* are constant
3. 100% payout or retention – all earnings are either distributed as dividends or reinvested internally immediately.
4. Constant EPS and DPS – beginning earnings and dividends never change. The values of the EPS and DPS may be changed in the model to determine results but are assumed to remain unchanged in determining a given value.
5. Infinite time – the firm has a very long or infinite life

Walter's Model

- Walter's formula for determining MPS is as follows:

$P = (DPS/ke) + [r\,(EPS - DPS)/ke]/ke$

Where:

- P = market price per share
- DPS = dividend per share
- EPS = earnings per share
- *r* = firm's average rate of return
- *ke* = firm's cost of equity capital

Walter's Model

- the market value is determined as the present value of two sources of income:

1. PV of constant stream of dividend (DPS/*ke*)
2. PV of infinite stream of capital gains:

   r(EPS-DPS)/*ke*

Hence the formula can be rewritten as

$$P = \frac{DPS + (r/ke)\,(EPS - DPS)}{ke}$$

Walter's Model

- Given three types of firms or scenarios of firms the model can be summarized as follows:

1. **Growth firm**: there are several investment opportunities ($r > ke$) and the firm can reinvest earnings at a higher rate r than that which is expected by shareholders ke. thus they will maximize value per share if they reinvest all earnings.
2. **Normal firm**: there aren't any investments available for the firm that are yielding higher rates of return ($r = ke$) thus the dividend policy has no effect on market price.

Walter's Model

3. **Declining firm**: there aren't any profitable investments for the firm to reinvest its earnings, i.e. any investments would earn the firm a rate less than its cost of capital ($r < ke$). The firm will therefore maximize its value per share if it pays out all its earnings as dividend.

Criticisms of Walter's model

- Model assumes investment decisions of the firm are financed by retained earnings alone
- Model assumes a constant rate of return and;
- constant cost of capital, i.e. disregards the firm's risk which changes over time hence the discount rate will change over time in proportion.
- Ignores business risk.

Gordon's Model

- Assumptions:

1. The firm is an all equity firm, i.e. no debt
2. No external financing is available; consequently retained earnings would be used to finance any expansion of the firm. Similar argument as Walter's for the dividend and investment policies.
3. Constant return which ignores diminishing marginal efficiency of investment as represented in the diagram on Walter's model.
4. Constant cost of capital; model also ignores the risk-effect as did Walter's

Gordon's model

5. Perpetual stream of earnings for the firm
6. Corporate taxes do not exist
7. Constant retention ratio b, i.e. once decided upon stays as such forever. The growth rate g = br stays constant in that case.
8. Cost of equity capital greater than the growth rate (ke > br = g); otherwise it is not possible to obtain a meaningful value for the share.
9. Firm has perpetual life.

Gordon's Model

- According to Gordon's model dividend per share is expected to grow when earnings are retained. The dividend per share is equal to the payout ratio multiplied by earnings [EPS X (1-b)]. To determine the value of the firm therefore based on the dividend growth model the value of the firm will be:
- $P_o = \frac{EPS\ (1 - b)}{ke - g}$
- Where:
- *g* = the growth rate determined as *br*
- *g* is always less than *k*
- *b*= *Retention ratio.*

Gordon's Model

- The conclusions of Gordon's model are similar to Walter's model due to the fact that their sets of assumptions are similar.

1. The market value of P_0 increases with retention ratio b, for firms with growth opportunities, i.e. when $r > ke$.
2. The market value of the share P_0 increases with payout ratio $(1 - b)$, for declining firms with $r < ke$
3. The market value is not affected by the dividend policy where $r = ke$