

Dividend Decision

Definition: The **Dividend Decision** is one of the crucial decisions made by the finance manager relating to the pay outs to the shareholders. The pay out is the proportion of **Earning Per Share** given to the shareholders in the form of dividends.

The companies can pay either dividend to the shareholders or retain the earnings within the firm. The amount to be disbursed depends on the preference of the shareholders and the investment opportunities prevailing within the firm. The optimal dividend decision is when the wealth of shareholders increases with the increase in the value of shares of the company. Therefore, the finance department must consider all the decisions viz. Investment, Financing and Dividend while computing the payouts. If attractive investment opportunities exist within the firm, then the shareholders must be convinced to forego their share of dividend and reinvest in the firm for better future returns. At the same time, the management must ensure that the value of the stock does not get adversely affected due to less or no dividends paid out to the shareholders.

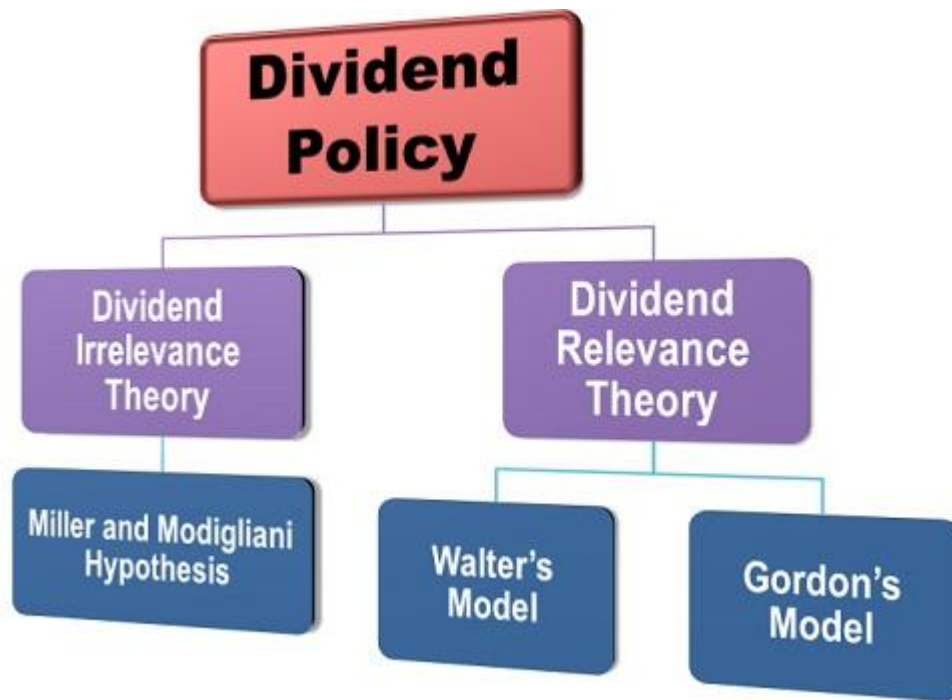
The objective of the [financial management](#) is the **Maximization of Shareholder's Wealth**. Therefore, the finance manager must ensure a win-win situation for both the shareholders and the company.

Dividend Policy

Definition: The **Dividend Policy** is a financial decision that refers to the proportion of the firm's earnings to be paid out to the shareholders. Here, a firm decides on the portion of revenue that is to be distributed to the shareholders as dividends or to be ploughed back into the firm.

The amount of earnings to be retained back within the firm depends upon the availability of investment opportunities. To evaluate the efficiency of an opportunity, the firm assesses a relationship between the rate of return on investments " r " and the cost of capital " K ."

As per the dividend models, some practitioners believe that the shareholders are not concerned with the firm's dividend policy and can realize cash by selling their shares if required. While the others believed that, dividends are relevant and have a bearing on the share prices of the firm. This gave rise to the following models:



As long as returns are more than the cost, a firm will retain the earnings to finance the projects, and the shareholders will be paid the residual dividends i.e. the earnings left after financing all the potential investments. Thus, the dividend payout fluctuates from year to year, depending on the availability of investment opportunities.

Limitation on Dividend Payments:

The firm has the following limitations in paying dividends.

The management of the firm while making decision in paying out dividends to its shareholders should also analyse these problems:

i. Cash Requirements:

Many firms are unable to pay dividends regularly. A company which is going through its gestation period or is small in nature and is trying to expand its business has the problem of paying high dividends.

If it does, it will be surrounded by inefficiency because of the insufficiency of cash. Sometimes, a firm has the problem of tying up all resources in inventories or in the commitment of purchasing long-term investments. This acts as a restraint of the firm to pay out dividends.

ii. Limitations Placed by Creditors:

Sometimes, a firm requires funds for long-term purpose and to fulfil this obligation it makes, the use of funds on long-term loans. While taking these loans the firm makes an arrangement with the creditors that it will not pay dividends to its shareholders till its debt equity ratio depicts 2:1.

Sometimes, the firm also makes contractual obligations with its creditors to maintain a certain pay-out ratio till the time that it is using the loan facilities. Under these contractual obligations, the firm cannot pay more than the dividends it can, or is allowed to pay, under the agreement.

iii. Legal Constraints:

In India, there are many legal constraints in payment of dividends. The payment of dividends is subject to government policy and tax laws. This restraint also covers bonds, debentures and equity shares.

There are regulatory authorities such as Reserve Bank of India, Securities Exchange Board of India, Insurance Regulatory Authority of India. Income Tax Act of India and Companies Act followed in India. These legal constraints should be carefully analysed before paying dividends to the shareholders.

Walter's Model

Definition: According to the **Walter's Model**, given by prof. James E. Walter, the dividends are relevant and have a bearing on the firm's share prices. Also, the investment policy cannot be separated from the dividend policy since both are interlinked.

Walter's Model shows the clear relationship between the return on investments or internal rate of return (r) and the cost of capital (K). The choice of an appropriate dividend policy affects the overall value of the firm. The efficiency of dividend policy can be shown through a relationship between returns and the cost.

- If $r > K$, (**growth firm**) the firm should retain the earnings because it possesses better investment opportunities and can gain more than what the shareholder can by re-investing. The firms with more returns than a cost are called the "Growth firms" and have a zero pay out ratio.
- If $r < K$, (**decline firm**) the firm should pay all its earnings to the shareholders in the form of dividends, because they have better investment opportunities than a firm. Here the pay out ratio is 100%.
- If $r = K$, (**normal firm**) the firm's dividend policy has no effect on the firm's value. Here the firm is indifferent towards how much is to be retained and how much is to be distributed among the shareholders. The pay out ratio can vary from zero to 100%.

Assumptions of Walter's Model

1. All the financing is done through the retained earnings; no external financing is used.
2. The rate of return (r) and the cost of capital (K) remain constant irrespective of any changes in the investments.
3. All the earnings are either retained or distributed completely among the shareholders.
4. The earnings per share (EPS) and Dividend per share (DPS) remain constant.
5. The firm has a perpetual life.

Criticism of Walter's Model

1. It is assumed that the investment opportunities of the firm are financed through the retained earnings and no external financing such as debt, or equity is used. In such a case either the investment policy or the dividend policy or both will be below the standards.
2. The Walter's Model is only applicable to all equity firms. Also, it is assumed that the rate of return (r) is constant, but, however, it decreases with more investments.
3. It is assumed that the cost of capital (K) remains constant, but, however, it is not realistic since it ignores the business risk of the firm, that has a direct impact on the firm's value.

Note: Here, the cost of capital (K) = Cost of equity (Ke), because no external source of financing is used.

Gordon's Model

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.

According to the Gordon's Model, the market value of the share is equal to the present value of future dividends. It is represented as:

$$P = [E (1-b)] / Ke-br$$

Where, P = price of a share
 E = Earnings per share
 b = retention ratio
 1-b = proportion of earnings distributed as dividends
 Ke = capitalization rate
 Br = growth rate

Assumptions of Gordon's Model

1. The firm is an all-equity firm; only the retained earnings are used to finance the investments, no external source of financing is used.
2. The rate of return (r) and cost of capital (K) are constant.
3. The life of a firm is indefinite.
4. Retention ratio once decided remains constant.

5. Growth rate is constant ($g = br$)
6. Cost of Capital is greater than br

Criticism of Gordon's Model

1. It is assumed that firm's investment opportunities are financed only through the retained earnings and no external financing viz. Debt or equity is raised. Thus, the investment policy or the dividend policy or both can be sub-optimal.
2. The Gordon's Model is only applicable to all equity firms. It is assumed that the rate of returns is constant, but, however, it decreases with more and more investments.
3. It is assumed that the cost of capital (K) remains constant but, however, it is not realistic in the real life situations, as it ignores the business risk, which has a direct impact on the firm's value.

Thus, Gordon model posits that the dividend plays an important role in determining the share price of the firm.

1. The following information is available for Avanti Corporation .

(Prasanna Chandra 535, Walters)

Earnings per share = Rs. 4/-; Rate of return on investment = 18%; Rate of return required by share holders = 15%; What will be the price per share as per the Walter model. If the payout ratio is 40%; 50% & 60%

Problems on Dividend policy

1. The following information is available for Avanti Corporation .(Prasanna Chandra 535, Walters) Earnings per share = Rs. 4/-; Rate of return on investment = 18%; Rate of return required by share holders = 15%; What will be the price per share as per the Walter model. If the payout ratio is 40%; 50% & 60%?

2. The following data is available for Parkson company

(Prasanna Chandra 537, Exercise Problem; Walters)

Earnings per share = Rs. 3/-; Internal rate of return = 15%; Cost of capital = 12%.

If Walter's valuation formula holds what will be the price per share. If dividend payout ratio is 50%; 75% & 100%?

3. The earnings per share of a company is Rs. 8/- & rate of capitalization applicable is 10%. The company has before it, An option of adopting i) 50% ii) 75% iii) 100% Dividend payout ratio. Compute market price of company's quoted shares as per Walter's model . If it can earn a return of 15%, 10% & 5% on its retained earnings

4. XYZ Ltd. has rate return of (i)16% (ii)10% (iii)8% and its D.P.O ratio is (i)40% (ii)60% (iii) 80% The EPS of the company is Rs. 10/- and the capitalization rate applicable is 12%. Calculate price of the company's share as per Walter model.

5. (Gordon Model Problems)The following information is available for Kavitha Musicals.

(Prasanna Chandra 536)

EPS=Rs. 5/- Rate of return required by share holders=16% Assuming that the Gordon valuation model holds, what rate of return should be earned on investment ensure that the market price is Rs. 50/- When the dividend payout is 40%

6. The following data are available for Rajdhani Corporation.
 EPS=Rs. 8/- Internal rate of return =16%; Cost of capital = 12% If Gordon's valuation formula holds what will be the price per share when the D.P.O is 25%; 50% & 100%.

NUMERICAL PROBLEMS

1. A company earns 12% against a required rate of return of 10%. The EPS is Rs 8 with a 50% dividend pay-out ratio. Find the value of its share using:
 1. Walter's model; and
 2. Gordon's model.
2. EPS is Rs 10. Capitalisation rate is 12.5%. IRR is 15%. Determine the pay-out ratio and the price of shares at this pay-out ratio based on Walter's theory.
3. If a share is selling for Rs 150. the company is to declare dividend for Rs 10 per share. The capitalisation rate is 10%. Find the shareholders' wealth in case of dividend/no dividend.
4. A company has Rs 50,000 shares. Its earnings and investment requirements are as follows:

Year	Earnings (Rs)	Investment (Rs)
1	50,000	60,000
2	50,000	55,000
3	50,000	30,000 ...