

Unit 4 Dividend Policy

Dividend : Dividend is the part of profit distributed to shareholders. Dividend to preference shareholders is given at a fixed rate. Dividend of equity shareholders depends on the dividend policy of the company and the current profits of the firm.

Dividend Policy: Dividend policy is concerned with taking a decision regarding paying cash dividend in the present or paying an increased dividend at a later stage. The firm could also pay in the form

of stock dividends which unlike cash dividends do not provide liquidity to the investors, however, it ensures capital gains to the stockholders. The expectations of dividends by shareholders helps them determine the share value, therefore, dividend policy is a significant decision taken by the financial managers of any company.

Coming up with a dividend policy is challenging for the directors and financial manager of a company, because different investors have different views on present cash dividends and future capital gains. Another confusion that pops up is regarding the extent of effect of dividends on the share price. Due to this controversial nature of a dividend policy it is often called the dividend puzzle.

Various models have been developed to help firms analyze and evaluate the perfect dividend policy. There is no agreement between these schools of thought over the relationship between dividends and the value of the share or the wealth of the shareholders in other words.

One school consists of people like James E. Walter and Myron J. Gordon , who believe that current cash dividends are less risky than future capital gains. Thus, they say that investors prefer those firms which pay regular dividends and such dividends affect the market price of the share. Another school linked to Modigliani and Miller holds that investors don't really choose between future gains and cash dividends.

Factors Influencing Dividend Policy

Many factors influence a company's dividend policy, including:

1. Legal Restrictions: The legal restrictions that influence dividend policy are as follows:

Dividends can only be paid out of profit and not out of capital

Companies can declare and pay dividends using the previous year's profit

At least 10% of profit must be transferred to the company's reserves

Dividends are payable in cash, but by following legal formalities, dividends can also be paid in bonus shares or assets

2. Size of Earnings: Dividend policy is dependent on the earnings of the firm. It is not only the amount of dividend but also the nature of the earnings that bears upon dividend policy. A stable dividend policy is preferable.

3. Shareholder Preferences: Management should follow a policy that suits the interests not only of the company but also its shareholders.

4. Liquidity Position: A company's dividend policy must consider the liquidity position of the company. The payment of dividends reduces the company's cash reserves of the company. Growing companies have a pressing need for funds, and so, for these companies, the payment of dividends in cash should be avoided.

5. Management Attitude: Some companies use internal sources to finance expansion programs because issuing new shares would alter the control of the company. When debentures are issued to finance expansion, this runs the risk of causing the earnings of existing members to fluctuate.

6. Condition of Capital Market: When the capital market is comfortable, companies can follow a liberal dividend policy.

7. Stability of Earnings: When a company is making remarkable progress and has stable earnings, a liberal dividend policy can be followed.

8. Trade Cycle: When there is inflation in the country, the company will earn more profit. Therefore, the company can distribute more dividends and, when it needs funds, these can be borrowed externally at a favorable interest rate.

9. Ability to Borrow: A company that can borrow from external sources at a cheap rate can borrow from the outside. In such cases, the cost of borrowed capital and retained earnings can be compared.

10. Past Dividend Rate: While deciding on a dividend policy, managers and the board of directors should pay attention to the dividend rate in previous years.

Different Types of Dividend

1. Cash Dividend

There are two types of cash dividends:

- **Regular Dividend:** Annually paid, proposed by the board of directors, and approved by shareholders in a general meeting.
- **Interim Dividend:** If the articles of association permit, directors can decide to pay a dividend any time between two annual general meetings before finalizing the accounts. This generally happens when a company has huge profits.

2. Stock Dividend

When a company does not have sufficient cash, it may pay a dividend in bonus shares, which is referred to as a stock dividend.

3. Scrip Dividend

A scrip dividend is used when earnings justify a dividend but the company's cash position is temporarily weak.

In this case, shareholders are issued shares and debentures of another company, which are held by the company as investments.

4. Bond Dividend

In rare instances, dividends may be paid in the form of debentures/bonds or notes for a long-term period with a fixed rate of interest.

Theories of Dividend policy

1. Irrelevance Theory : According to irrelevance theory dividend policy do not affect value of firm, thus it is called irrelevance theory.

- **Modigliani & Miller Approach (MM Approach)**

2. Relevance Theory : According to relevance theory dividend policy affects value of firm, thus it is called relevance theory.

- Walter's Model
- Gordon's Model

Modigliani and Miller Approach

☐ Modigliani-Miller have argued that firm's dividend policy is irrelevant to the value of the firm.

- According to this approach, the market price of a share is dependent on the earnings of the firm on its investment and not on the dividend paid by it. Earnings of the firm which affect its value, further depends upon the investment opportunities available to it.

Assumption

- Perfect Capital Markets - This theory believes in the existence of 'perfect capital markets'. It assumes that all the investors are rational, they have access to free information, there are no flotation or transaction costs and no large investor to influence the market price of the share.
- No Taxes - There is no existence of taxes. Alternatively, both dividends and capital gains are taxed at the same rate.
- Fixed Investment Policy - The company does not change its existing investment policy. It means whatever may be the dividend payment, the company will make investment as it has already decided upon. If the company is going to pay more amount of dividend, then it will more equity shares and vice versa.
- No Risk of Uncertainty - All the investors are certain about the future market prices and the dividends. This means that the same discount rate is applicable for all types of stocks in all time periods.
- Investor is indifferent between dividend income and capital gain income - It is assumed that investor is indifferent between dividend income and capital gain income. It means if he requires total return of Rs. 500, he may get Rs. 200 dividend income and Rs. 300 as capital gain income or reverse, in either of the case he gets equal satisfaction.

Relevance of dividend policy

Dividends paid by the firms are viewed positively both by the investors and the firms. The firms which do not pay dividends are rated in oppositely by investors thus affecting the share price. The people who support relevance of dividends clearly state that regular

dividends reduce uncertainty of the shareholders i.e. the earnings of the firm is discounted at a lower rate, k_e thereby increasing the market value. However, its exactly opposite in the case of increased uncertainty due to non-payment of dividends.

Two important models supporting dividend relevance are given by Walter and Gordon

Walter's Model

According to Walter's Model, value of the firm depends upon firm's earning level, dividend payout, constant reinvestment rate and the shareholder's expected rate of return.

- The model suggests that dividend policy of the company depends upon the fact that whether firm has got good investment opportunities or not. If the firm does not have enough investment opportunities then it will pay the dividend otherwise it will retain the money.
- If the firm pays dividend then shareholder's invest the dividend income to get further return. The expected return on reinvestment of dividend income by shareholders is called the opportunity cost to the firm or the cost of capital (k_e) of the firm. On the other hand, if dividend is not paid then the firm will reinvest the retained earning for its future growth. The expected rate of return on reinvestment of retained earning is called rate of return (r).

Formula of Walter's Model

$$P = \frac{D}{k_e} + \frac{\left(\frac{r}{k_e}\right)(E - D)}{k_e} \quad \text{or} \quad \frac{D + \left(\frac{r}{k_e}\right)(E - D)}{k_e}$$

- P = Market price of equity share.
- D = Dividend per share.
- E = Earning per share.
- r = Rate of return on investment of the firm.
- k_e = Cost of equity share capital.
- Hence, Value of firm = $N \times P$
- Where, N = No. of outstanding equity shares.

Illustration

- Following are the details of three companies X Ltd., Y Ltd. and Z Ltd.

X Ltd.	Y Ltd.	Z Ltd.
$r = 20\%$ $k_e = 15\%$ $E = \text{Rs } 8$	$r = 15\%$ $k_e = 15\%$ $E = \text{Rs } 8$	$r = 10\%$ $k_e = 15\%$ $E = \text{Rs } 8$

- Calculate the value of an equity share of each of these companies applying Walter's Model when D/P ratio is (a) 40% (b) 70% (c) 90%.

- Solution: Value of an Equity Share as per Walter's Model**

$$P = \frac{D}{k_e} + \frac{\left(\frac{r}{k_e}\right)(E - D)}{k_e} \quad \text{or} \quad \frac{D + \left(\frac{r}{k_e}\right)(E - D)}{k_e}$$

Value of Equity Share as per Walter's Model

	X Ltd.	Y Ltd.	Z Ltd.
	$r = 20\%$ $k_e = 15\%$ $E = \text{Rs } 8$	$r = 15\%$ $k_e = 15\%$ $E = \text{Rs } 8$	$r = 10\%$ $k_e = 15\%$ $E = \text{Rs } 8$
D/P Ratio	Market Price of the Share (P)		
40%, D = Rs 3.20	$P = \frac{3.20 + \left(\frac{0.20}{0.15}\right)(8 - 3.20)}{0.15}$ P = 64.00	$P = \frac{3.20 + \left(\frac{0.15}{0.15}\right)(8 - 3.20)}{0.15}$ P = 53.33	$P = \frac{3.20 + \left(\frac{0.10}{0.15}\right)(8 - 3.20)}{0.15}$ P = 42.67
70%, D = Rs 5.60	$P = \frac{5.60 + \left(\frac{0.20}{0.15}\right)(8 - 5.60)}{0.15}$ P = 58.67	$P = \frac{5.60 + \left(\frac{0.15}{0.15}\right)(8 - 5.60)}{0.15}$ P = 53.33	$P = \frac{5.60 + \left(\frac{0.10}{0.15}\right)(8 - 5.60)}{0.15}$ P = 48.00
90%, D = Rs 7.20	$P = \frac{7.20 + \left(\frac{0.20}{0.15}\right)(8 - 7.20)}{0.15}$ P = 55.11	$P = \frac{7.20 + \left(\frac{0.15}{0.15}\right)(8 - 7.20)}{0.15}$ P = 53.33	$P = \frac{7.20 + \left(\frac{0.10}{0.15}\right)(8 - 7.20)}{0.15}$ P = 51.55

X Ltd. is a "growth firm", Where $r > k_e$. Therefore, to maximize the market price, the company needs to retain all its earnings, otherwise its price will decline.

Y Ltd. is a "normal firm", where $r = k_e$. In this case D/P ratio does not have any impact on the value of the firm and its share price.

Z Ltd. is a "declining firm". The rate of return is less than the cost of capital i.e., $r < k_e$. Therefore, to maximize the market price of the share, the company should distribute all its earnings as dividend. The value of the share is increasing when we increase the payout ratio from 40% to 90%.

Gordon's Model

- According to Gordon's Model, Dividend policy of a firm is relevant and can affect the value of a firm. Like Walter's Model value of the firm under this method also depends upon reinvestment rate (r) and shareholder's expectations ().

- This is based on the premise that the investors are generally riskaversers and prefer to have current income i.e. dividend. Hence there is a direct relationship between dividend policy and the value of a firm.

Assumption

- No Debt: The model assumes that the company is an all equity company, with no proportion of debt in the capital structure.
- No External Financing: The model assumes that all investment of the company is financed by retained earnings and no external financing is required.
- Constant IRR: The model assumes a constant Internal Rate of Return (r), ignoring the diminishing marginal efficiency of the investment.
- Constant Cost of Capital: 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.
- Perpetual Earnings: Gordon's model believes in the theory of perpetual earnings for the company.
- Corporate taxes: Corporate taxes are not accounted for in this model.
- Constant Retention Ratio: The model assumes a constant retention ratio (b) once it is decided by the company. Since the growth rate (g) = $b \cdot r$, the growth rate is also constant by this logic.
- $K > g$: 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.

Formula of Gordon's Model

$$P = \frac{E (1 - b)}{k_e - br}$$

- P = Market price of equity share.
- E = Earnings per share.
- b = Retention ratio.(1 – payout ratio)
- r = Rate of return on investment.
- k_e = Cost of equity capital.
- br = Growth rate of the firm.
- Hence, value of firm = N × P
- Where, N = No. of outstanding equity shares.

Illustration

- Assuming that cost of equity is 11%; rate of return on investment is 12%; and earning per share is Rs 15. Calculate price per share by 'Gordon Model' if dividend payout ratio is 10% and 30%.

- **Solution:** According to Gordon's Model : $P = \frac{E (1 - b)}{k_e - br}$

- P = Market price of equity share. E = Earnings per share.
- b = Retention ratio.(1 – payout ratio) r = Rate of return on investment.
- k_e = Cost of equity capital. br = Growth rate of the firm.

- When D/P Ratio is 10% $P = \frac{15 (1 - 0.90)}{0.11 - (0.90 \times 0.12)} = \frac{1.5}{0.002} = \text{Rs } 750$

- When D/P Ratio is 30% $P = \frac{15 (1 - 0.70)}{0.11 - (0.70 \times 0.12)} = \frac{4.5}{0.026} = \text{Rs } 173.08$