

## **DIVIDEND POLICY DECISION: (THEORY 50% & EXAMPLES 50%)**

Forms of Dividend payment, Significance of Dividend Policy in Financial Decision, Variables influencing Dividend decision, Walter's Model, Gordon's Model and Modigliani - Miller's Model.

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Dividend is that part of the profits of a company which is distributed amongst its shareholders.

According to ICAI, "Dividend is a distribution to shareholders out of profits or reserves available for this purpose."

### **TYPES OF DIVIDEND**

1. **Regular Dividend.** By dividend we mean regular dividend paid annually, proposed by the board of directors and approved by the shareholders in general meeting. It is also known as final dividend because it is usually paid after the finalization of accounts. It is generally paid in cash as a percentage of paid up capital, say 10 % or 15 % of the capital. Sometimes, it is paid per share. No dividend is paid on calls in advance or calls in arrears. The company is, however, authorised to make provisions in the Articles prohibiting the payment of dividend on shares having calls in arrears.
2. **Interim Dividend.** If Articles so permit, the directors may decide to pay dividend at any time between the two Annual General Meeting before finalizing the accounts. It is generally declared and paid when company has earned heavy profits or abnormal profits during the year and directors wish to pay the profits to shareholders. Such payment of dividend in between the two Annual General meetings before finalizing the accounts is called Interim Dividend. No Interim Dividend can be declared or paid unless depreciation for the full year (not proportionately) has been provided for. It is, thus, an extra dividend paid during the year requiring no need of approval of the Annual General Meeting. It is paid in cash.
3. **Stock-Dividend.** Companies, not having good cash position, generally pay dividend in the form of shares by capitalizing the profits of current year and of past years. Such shares are issued instead of paying dividend in cash and called 'Bonus Shares'. Basically there is no change in the equity of shareholders. Certain guidelines have been used by the company Law Board in respect of Bonus Shares.
4. **Scrip Dividend.** Scrip dividends are used when earnings justify a dividend, but the cash position of the company is temporarily weak. So, shareholders are issued shares and debentures of other companies. Such payment of dividend is called Scrip Dividend. Shareholders generally do not like such dividend because the shares or debentures, so paid are worthless for the shareholders as directors would use only such investment which were not . Such dividend was allowed before passing of the Companies (Amendment) Act 1960, but thereafter this unhealthy practice was stopped.
5. **Bond Dividends.** In rare instances, dividends are paid in the form of debentures or bonds or notes for a long-term period. The effect of such dividend is the same as that of paying dividend in scrips. The shareholders become the secured creditors if the bonds have a lien on assets.
6. **Property Dividend.** Sometimes, dividend is paid in the form of asset instead of payment of dividend in cash. The distribution of dividend is made whenever the asset is no longer

required in the business such as investment or stock of finished goods.

But, it is, however, important to note that in India, distribution of dividend is permissible in the form of cash or bonus shares only. Distribution of dividend in any other form is not allowed.

### **Forms of Dividend**

1. **Cash Dividend:** The normal practice is to pay dividends in cash. The payment of dividends in cash results in cash outflow from the firm. Therefore the firm should have adequate cash resources at its disposal before declaring cash dividend.
2. **Stock Dividend:** The Company issues additional shares to the existing shareholders in proportion to their holdings of equity share capital of the company. Stock dividend is popularly termed as 'issue of bonus shares.' This is next to cash dividend in respect of its popularity.
3. **Bond Dividend:** In case the company does not have sufficient funds to pay dividends in cash it may issue bonds for the amount due to shareholders. The main purpose of bond dividend is postponement of payment of immediate dividend in cash. The bond holders get regular interest on their bonds besides payment of the bond money on the due date.  
[Bond dividend is not popular in India]
4. **Property Dividend:** This is a case when the company pays dividend in the form of assets other than cash. This may be in the form of certain assets which are not required by the company or in the form of company's products.  
[This type of dividend is not popular in India]

**Bonus Shares:** When the additional shares are allotted to the existing shareholders without receiving any additional payment from them, is known as issue of bonus shares. Bonus shares are allotted by capitalizing the reserves and surplus.

Issue of bonus shares results in the conversion of the company's profits into share capital. Therefore it is termed as capitalization of company's profits. Since such shares are issued to the equity shareholders in proportion to their holdings of equity share capital of the company, a shareholder continues to retain his/ her proportionate ownership of the company.

Issue of bonus shares does not affect the total capital structure of the company. It is simply a capitalization of that portion of shareholders' equity which is represented by reserves and surpluses. It also does not affect the total earnings of the shareholders

### **FACTORS AFFECTING DIVIDEND POLICY**

1. **Stability of Earnings.** The nature of business has an important bearing on the dividend policy. Industrial units having stability of earnings may formulate a more consistent dividend policy than those having an uneven flow of incomes because they can predict easily their savings and earnings. Usually, enterprises dealing in necessities suffer less from oscillating earnings than those dealing in luxuries or fancy goods.

2. **Age of corporation.** Age of the corporation counts much in deciding the dividend policy. A newly established company may require much of its earnings for expansion and plant improvement and may adopt a rigid dividend policy while, on the other hand, an older company can formulate a clear cut and more consistent policy regarding dividend.
3. **Liquidity of Funds.** Availability of cash and sound financial position is also an important factor in dividend decisions. A dividend represents a cash outflow, the greater the funds and the liquidity of the firm the better the ability to pay dividend. The liquidity of a firm depends very much on the investment and financial decisions of the firm which in turn determines the rate of expansion and the manner of financing. If cash position is weak, stock dividend will be distributed and if cash position is good, company can distribute the cash dividend.
4. **Extent of share Distribution.** Nature of ownership also affects the dividend decisions. A closely held company is likely to get the assent of the shareholders for the suspension of dividend or for following a conservative dividend policy. On the other hand, a company having a good number of shareholders widely distributed and forming low or medium income group, would face a great difficulty in securing such assent because they will emphasise to distribute higher dividend.
5. **Needs for Additional Capital. Companies** retain a part of their profits for strengthening their financial position. The income may be conserved for meeting the increased requirements of working capital or of future expansion. Small companies usually find difficulties in raising finance for their needs of increased working capital for expansion programmes. They having no other alternative, use their ploughed back profits. Thus, such Companies distribute dividend at low rates and retain a big part of profits.
6. **Trade Cycles.** Business cycles also exercise influence upon dividend Policy. Dividend policy is adjusted according to the business oscillations. During the boom, prudent management creates food reserves for contingencies which follow the inflationary period. Higher rates of dividend can be used as a tool for marketing the securities in an otherwise depressed market. The financial solvency can be proved and maintained by the companies in dull years if the adequate reserves have been built up.
7. **Government Policies.** The earnings capacity of the enterprise is widely affected by the change in fiscal, industrial, labour, control and other government policies. Sometimes government restricts the distribution of dividend beyond a certain percentage in a particular industry or in all spheres of business activity as was done in emergency. The dividend policy has to be modified or formulated accordingly in those enterprises.
8. **Taxation Policy.** High taxation reduces the earnings of he companies and consequently the rate of dividend is lowered down. Sometimes government levies Dividend tax of distribution of dividend beyond a certain limit. It also affects the capital formation. N India, dividends beyond 10 % of paid-up capital are subject to dividend tax at 7.5 %.
9. **Legal Requirements.** In deciding on the dividend, the directors take the legal requirements too into consideration. In order to protect the interests of creditors an

outsiders, the companies Act 1956 prescribes certain guidelines in respect of the distribution and payment of dividend. Moreover, a company is required to provide for depreciation on its fixed and tangible assets before declaring dividend on shares. It proposes that Dividend should not be distributed out of capita, in any case. Likewise, contractual obligation should also be fulfilled, for example, payment of dividend on preference shares in priority over ordinary dividend.

10. **Past dividend Rates.** While formulating the Dividend Policy, the directors must keep in mind the dividend paid in past years. The current rate should be around the average past rate. If it has been abnormally increased the shares will be subjected to speculation. In a new concern, the company should consider the dividend policy of the rival organisation.
11. **Ability to Borrow.** Well established and large firms have better access to the capital market than the new Companies and may borrow funds from the external sources if there arises any need. Such Companies may have a better dividend pay-out ratio. Whereas smaller firms have to depend on their internal sources and therefore they will have to built up good reserves by reducing the dividend pay out ratio for meeting any obligation requiring heavy funds.
12. **Policy of Control.** Policy of control is another determining factor is so far as dividends are concerned. If the directors want to have control on company, they would not like to add new shareholders and therefore, declare a dividend at low rate. Because by adding new shareholders they fear dilution of control and diversion of policies and programmes of the existing management. So they prefer to meet the needs through retained earning. If the directors do not bother about the control of affairs they will follow a liberal dividend policy. Thus control is an influencing factor in framing the dividend policy.
13. **Repayments of Loan.** A company having loan indebtedness are vowed to a high rate of retention earnings, unless one other arrangements are made for the redemption of debt on maturity. It will naturally lower down the rate of dividend. Sometimes, the lenders (mostly institutional lenders) put restrictions on the dividend distribution still such time their loan is outstanding. Formal loan contracts generally provide a certain standard of liquidity and solvency to be maintained. Management is bound to honour such restrictions and to limit the rate of dividend payout.
14. **Time for Payment of Dividend.** When should the dividend be paid is another consideration. Payment of dividend means outflow of cash. It is, therefore, desirable to distribute dividend at a time when is least needed by the company because there are peak times as well as lean periods of expenditure. Wise management should plan the payment of dividend in such a manner that there is no cash outflow at a time when the undertaking is already in need of urgent finances.
15. **Regularity and stability in Dividend Payment.** Dividends should be paid regularly because each investor is interested in the regular payment of dividend. The management should, inspite of regular payment of dividend, consider that the rate of dividend should be all the most constant. For this purpose sometimes companies maintain dividend equalization Fund.

## PROF. JAMES E WALTER MODEL

Walter argues that the choice of dividend policies always affect the value of the enterprise. The model clearly shows the importance of the relationships between the firm's IRR i.e.,  $r$  and its COC i.e.,  $K$  in determining the dividend policy that will maximise the wealth of the shareholders.

### Assumptions

1. **Internal Financing:** RE represents the only source of financing the firm, i.e., debt or new equity is not issued.
2. **Constant Return and Cost of Capital:** IRR ( $r$ ) & COC ( $k$ ) of the firm will remain constant.
3. **100% Payout or Retention:** All earnings are either distributed as dividend or reinvested internally.
4. **Constant EPS and DIV:** Beginning earnings and dividend never change. The value of the EPS and DPS may be changed in the model to determine results, but any given value of EPS or dividend are assumed to remain constant forever in determining the given value.
5. **Infinite Time :** A firm has perpetuality or a very long life.

**Valuation Formula:** Market price per share is the sum of the present value of the infinite stream of constant dividends and present value of the infinite stream of capital gains.

$$P = \frac{D + \frac{r}{K_e} (E - D)}{K_e}$$

Where,

$P$  = Market price per share,

$D$  = DPS,  $E$  = EPS,  $r$  = IRR = Actual Cap. Rate

$K_e$  = COC = Cap rate = Normal Cap rate

**Growth Firm ( $r > k$ ) :** Growth firms are those which expand rapidly because of ample investment opportunities yielding higher returns than the opportunity COC. These firms are able to reinvest earnings at a rate which is higher than the rate expected by the SHs. They will maximise the value of the shares if they follow a policy of retaining all earnings for investment. **The market value per share for the growth firm is maximum, if it retains 100% earning. ( 100% RR )**

**Normal Firm ( $r = k$ ) :** Most of the firms do not have surplus generating investment opportunities, i.e., generating returns higher than the opportunity COC. After having exhausted such profitable opportunities, these firms earn on their investment, a rate of return equal to the COC, i.e.,  $r = k$ . **Thus, for the normal firm, the dividend policy has no effect on the market value per share. There is no unique optimum payout ratio for the normal firm.**

**Declining Firm ( $r < k$ ) :** Some of the firm do not have any profitable investment opportunities to invest the earnings, because they earn less rate of return on their investment than the minimum rate required by the investors. **The Market value of the share of a declining firm may be more when it does not retain earnings at all, i.e., 100% payout.**

### Limitations

1. The firm investments are financed exclusively by retained earnings, i.e., no external financing is used. Thus, the model would be only applicable to an all equity firm.
2. Model assumes that  $r$  is constant. This is not realistic assumption, because when investment increases,  $r$  also changes.
3. The assumption of constant  $k_e$  is also not correct, because the risk complexion of a firm has a direct bearing on it. By assuming  $k_e$  to be constant, Walter ignores the effect of risk on the value of the firm.

### MYRON GORDON'S MODEL

#### Assumptions

1. The firm is an all equity firm .
2. No External Financing is available. Consequently, retained earnings would be used to finance any expansion.
3. IRR ( $r$ ) of the firm is constant.
4. Appropriate discount rate  $k$  for the firm remains constant, i.e., it ignores the effect of a change in the firm's risk class and its effect on  $k$ .
5. The firm and its stream of earnings are perpetual.
6. Corporate taxes do not exist.
7. The retention rate  $b$  once decided is constant. Thus the growth rate, i.e.,  $g = br$  is constant forever.
8. Discount rate is greater than Growth Rate, i.e.,  $k > g$ .

**Valuation Formula (Dividend Capitalisation Model) :** Market value of a share is equal to the present value of an infinite stream of dividends to be received by shareholders.

$$P_0 = Y_0 (1-b) / K - br \quad \text{OR} \quad \text{EPS} (1-b) / K - br$$

Where,

$P_0$  = Price per share at the beginning of Year 0.

$Y_0$  = EPS = EPS at the end of the year.

$1-b$  = Fraction of earnings the firm distributes by the way of dividend. i.e., D/P ratio.

$b$  = Fraction of earnings the firm ploughs back. (Retention rate)

$k$  = RRR by SHs or Cap. Rate or COC

$r$  = ROR earned on investment made by the firm.

$br = g$  ( growth rate of earnings and dividend ) i.e., growth rate in the  $r$  or ROR on investment of an all equity firm.

### MODIGLIANI AND MILLER APPROACH

According to M-M, under a perfect market situation, the dividend policy of a firm is irrelevant as it does not affect the value of the firm and wealth of the SHs. They argue that the value of the firm depends on firm's earnings which results from its investment policy. Thus when investment decision of the firm is given, dividend decision – the split of earnings between dividend & REs – is of no significance in determining the value of the firm.

**MM hypothesis of irrelevance of dividend is based on the following assumptions :**

1. The firm operates in perfect CM where investors behave rationally, information is available freely to all & transactions & floatation costs do not exist.
2. Taxes do not exist or there is no differences in tax rates applicable to capital gains & dividend.
3. The firm has a fixed investment policy. The financing of new investment out of REs will not change the business risk complexion of a firm, & therefore, no change in the RRR.
4. Risk of uncertainty does not exist, i.e., investors are able to forecast future prices & dividend with certainty & one discount rate is appropriate for all securities for all time periods.

### **The irrelevance of dividend**

MM states that dividend policy has no effect on the share prices of a firm. They say that it is the investment policy of the firm through which firm can increase its earnings & ultimately the value of the firm. Under conditions of perfect CM, rationale investors, absence of tax discrimination between dividend income & capital appreciation given the firm's investment policy, its dividend policy may have no influence on the market price of shares.

The MM arguments of irrelevance of dividend are based on the arbitrage process. It refers to entering simultaneously into 2 transactions which exactly balance or completely off-set each other. In the dividend policy decision, the 2 transactions are:

- Paying dividend, &
- Raising external funds either through the sale of new share (public issue) or raising additional loans to finance investment programme.

Thus, given the investment decision, the firm has 2 alternatives :

1. It can retain its earnings to finance the investment,
2. Distribute the earnings to the SHs as dividend & raise an equal amount externally through the sale of new shares.

If the firm selects the 2nd alternative, arbitrage process is involved, because payment of dividend is associated with raising funds through other means of financing (specially issue of shares). The effect of dividend payment on SHs' wealth will exactly be offset by the effect of raising additional share capital.

When the dividends are paid, the market price of the share will increase & with the issue of additional shares, it will fall. Thus, what gained by the investors as a result of increased dividend will be neutralized completely by the reduction in the terminal value of the shares, i.e., the market price before & after the dividend payment would be identical. Due to this, the SHs are indifferent with regards to dividend decision of a firm.

## PROOF OF MM HYPOTHESIS

**Step – 1:** The MP of the share in the beginning of the period is equal to the PV of the dividend payment at the end of the period plus the MP of the share at end of the period.

$$P_o = \frac{1}{(1 + K_e)} (D_1 + P_1) \quad (1)$$

$$= \frac{D_1 + P_1}{1 + K_e}$$

Where,  $P_o$  = Present MP of the share,  $K_e$  = Cost of equity capital,  
 $D_1$  = Dividend at the end of the year 1,  $P_1$  = MP of the share at the end of the year.

**Step – 2:** Assuming no external financing, the total capitalised value of the firm would be simply the number of shares times the price of each share :

$$nP_o = \frac{1}{(1 + K_e)} (nD_1 + nP_1) \quad (2)$$

Where,  $n$  = number of shares  $P_o$  = price of the share

**Step – 3:** If the firm's internal sources of financing its investment opportunities fall short of the funds required and  $\Delta n$  or  $m$  is the number of new shares issued at the end of one year at the price of  $P_1$ , the equation 2 can be :

$$nP_o = \frac{1}{1 + K_e} [nD_1 + (n + \Delta n) P_1 - nP_1] \quad (3)$$

Where,

$n$  = number of outstanding shares at the beginning of the year &  
 $\Delta n = m$  = change in the number of shares outstanding during the period

Above equation implies that the value of the firm is a capitalised value of the dividend to be received during the period plus the value of the number of shares outstanding at the end of the period considering any newly issued shares less the value of the newly issued shares.

**Step – 4:** If the firm is to finance all investment proposals, the total amount of new shares issued would be:

$$\Delta n P_1 = I - [E - nD_1] \quad (4)$$

Where,

$\Delta n P_1$  = amount obtained from the sale of new shares to finance capital budget,

$I$  = total amount requirement of capital budget,

$E$  = earnings of the firm during the period,

$nD_1$  = total dividend paid &

$E - nD_1$  = retained earnings

Equation 4 states that whatever investment are not financed by retained earnings must be financed through the sale of additional equity shares.



**Step – 5** : If we substitute equation 4 into equation 3, we derive :

$$nP_0 = \frac{1}{1+K_e} [ nD_1 + (n+\Delta n)P_1 - (I-E-nD_1) ]$$

Solving the equation, we get :

$$nP_0 = \frac{nD_1 + (n+\Delta n) P_1 - I + E - nD_1}{1 + K_e}$$

$$nP_0 = \frac{(n+ \Delta n) P_1 - I + E}{1 + K_e} \quad \text{----- (5)}$$

Since dividend are not found in equation 5, MM concludes that dividend do not count and that dividend policy has no effect on the share price.