UNIT-IV

DIVIDEND POLICY

Discuss the concept of dividend policy, with reference to factors that contribute to the shaping of a dividend policy.

DIVIDEND POLICY

In case of preference shares a fixed rate of dividend is always payable subject to availability of profits. The question of dividend policy, therefore, specifically concerns ordinary or equity shares.

A firm's dividend policy incorporates all aspects of payout, such as rate of dividend, stability, timing of payments, methods of payment, etc. formulating a dividend policy that covers each of these important areas requires careful consideration not only of the needs of the firm but of the requirements of the shareholders as well. It may also be determined y factors which are entirely economic. Factors that should be considered in formulating a dividend policy of a firm may be dividend into two groups viz.

(1) Factor affecting the welfare of the shareholders

(2) Factors affecting the welfare of the firm.

Any decision that benefits the firm should also be expected to benefit the owners. But this presumption rests upon whether the ownership needs and wishes and the firm interest are co – extensive – with each other or not. At the first glance, it may appear that such a conflict could arise only in the case of the corporate form of organization where ownership and control are separated. But such conflicts may arise in other cases also if the

shareholders, as persons, do not like to thrive at the cost of the firm. The various factors are discussed below in detail.

A. Ownership Factors

Dividend policies must be related to owners' desires. Unless a firm flows a dividend policy that is acceptable to at least one group of shareholders, its share will find weak market acceptance. This means that, even in this indirect manner, the ownership interests do come to be recognized. There are several ways in which dividend and retentions policies may be related to ownership interests.

(1) **Current income requirement of shareholders:** A business firm is supposedly run for the benefit of its owners or shareholders. It is, therefore, logical to assume that the dividend policy would be influenced by the shareholders' need for income.

It is generally assumed that the current income needs of the shareholders can be not only through cash dividends, but also by the proceeds of the liquidation of a part of their shareholdings of increased value.

(2) **Alternative uses for funds by the shareholders:** It is assumed that the earnings of a firm that are not paid out as dividend are retained in ownership interest. It is also argued that directors cannot properly shareholders could earn by alternative uses of the funds. But there is difficulty in determining the minimum expected earnings figure form the point of a view if shareholders. The average shareholders, does not know himself how he might employ the funds if paid out to him rather than retained.

The board may establish some kind of fixed rate to govern whether additional funds will be invested in the business. If the prospects are such that the minimum rate is met, the next consideration is whether to use retained earnings or outside capital. Although these problems are complex, if costs of funds are minimized in relation to risk, it can be said that indirectly shareholders interests have influenced dividend policy.

(3) **Tax considerations for the shareholders:** There may be specific efforts to make the company shares attractive from the tax point of view. This is related to the difference between the tax rate on capital gains and the tax rate on current income. Cash dividends are naturally not so attractive to investors in the higher tax brackets as are share dividends or even on dividends.

In short, a firm may follow a tax – oriented dividend policy by (i) not declaring dividends and allowing the shareholders to secure their returns through the sale of the appreciated shares; (ii) following a policy of regular share dividend in addition to or in lieu of cash dividends, or (iii) using classified equity share dividends (by a rise in their value). All of these policies would supposedly apply only to firms that had increasing needs for capital and not to a firm that was stagnant or declining in size.

B. Firm – oriented Factors

Dividend policies made in the best interest of the firm and with the primary emphasis upon firm needs, in contrast to the peculiar needs of he shareholders, do not necessarily ignore the shareholders, interest. But the difficulty of defining shareholders' interest and the fact that firm problem cam be brought – sharply into focus mean that business - oriented dividend policies are likely to prevail for the companies and that shareholders' considerations are likely to be subordinate.

(1) **Legal constraints:** This is the most paramount factor to be taken into account in shaping dividend policy of a firm. All the statutory provision relating to dividend applicable to he firm concerned should be duly considered. Such provisions may prescribe lower limit and in some cases upper limits of dividend. In India the provisions of the Companies Act, 1961 and the Companies (Temporary Restrictions on Dividend) Act, 1974 are examples on the point.

(2) **Liquidity, credit standing and working capital considerations:** Payment of dividend reduces the amount of working capital. Dividend policy must, therefore, consider cash availability and the effect of the dividend payment upon working capital and hence upon the liquidity of a firm. Where regular dividend policy hay has been established and the date of payment of the said dividend is arrived at with little cash in hand. The question arises as to whether the preservation of the regular dividend policy is important enough as impair liquidity or even make the firm borrow funds to cover the dividend. This conflicting objectives must be resolved by judgment as to what is in the best interest of the firm. Adequate working capital is essential to successful operation; it is, therefore, not logical to reduce working capital below the safe margin in order to maintain a given dividend rate. A firm that weakens its working capital position by paying dividends not only undermines its entire capital structure, but may very well cause creditors and investors to raise the 'price' of their funds. In such cases the interest of existing shareholders are harmed rather than helped.

(3) **Needs for expansion:** A firm which has been earning profit will look for expansion in the future. This may be due to diversification of products through an extension of existing activities. In any case, sufficient

fund is required and there may be various sources form which the required fund may be procured.

There may be a tendency to pay less dividend in order to have more and more retention. To what extent this is permissible can be judged by the management of a firm having regarded to the type of operation nature of the market, the feeling of him shareholders and other incidental factors. With reference to retention policy it may be stated that when the cost of distribution of earnings as dividends exceeds the cost of retention, a firm should retain earnings and vice versa. However, in deciding external versus retained capital the following factors will have a role to play: (1) availability to external capital at economic cost; (ii) the financial position of those in control of the firm (e.g., if the shareholders are in a high tax bracket, earnings are likely to be ploughed back into a growing concern); (iii) relative cost of different sources of capital; (iv) the ratio of debt to equity that is acceptable to a firm.

(4) **Business cycle considerations:** Many business firms are subjects to some degree of variation in profitability during the business cycle. Therefore, attempt may be made to smooth the amount paid as dividends from year to year. This means that in the boom period these firms have to go in for more retained profits so that in times of recessions the same can be utilized for the purpose of smoothing the dividend.

This smoothing of dividend over the business cycle may appear to be justified not from the point of positive dividend policy but from the point of variation in need for funds. As for instance, during the upswing in business activities working capital requirement increases. As profits grow, there is a tendency to finance those requirements out of earnings rather than increases dividends in proportion to earnings. On the other hand, during the

downswing when inventories are being liquidated and a scaling down is in process, funds are available in excess even after payment of dividend to the entire amount of the profit.

(5) **Dividend policies and shareholders' relationship:** Companies, like individuals, may become slaves to traditions. Once a given dividend pattern is established the question of whether a change is justified always arises. It is a fact that shareholders are willing to pay premium for a stable dividend. Therefore, this preference should be reflected in dividend policy. To the extent there is utility in stability, a policy of relatively favourable stable dividend would be justified.

(6) **Factors relating to future financing:** A firm that expects to secure outside funds to finance a part of its future growth will have to give proper considerations to it in all of its financial policies in future. The past dividend policy of a firm will affect the market for not only its new issues of equity shares but that of its debt capital as well. Although, there is no precise relationship between the parentage payout, dividend stability, and type of dividend and acceptability of new shares, a firm with stable dividend record usually finds a better market for its share. On the other hand, a firm that continually pays out all that it earns will and debt financing difficult, for its risk – bearing capacity will be low because of low equity base.

(7) **Inflation:** Finally, inflation may have an influence on the dividend policy of the firm. With rising prices, funds generated by providing depreciation on the basis of historical cost of the assets fall short of their replacement costs when replacement becomes due. One way to combat the problem, under conventional accounting is to increase the retention percentage at the cost of payout ratio.

Walter's Dividend Model

According to Welter, the dividend policy must be evaluated in the light of the objective of the firm, namely, to maximize the price of the share in the market. He argues that the choice of dividend policies almost always affects the value of the firm. According to him, the dividend policy should be determined solely by the profitability of investments. In opportunities, there should be no cash dividends, for the earnings will be the source of fund in this case. In the reverse case, all earnings (100 per cent) should be distributed to shareholders in the form of dividends because in this case the funds are not needed for financing. For situations between these two extremes, the dividend payout ratio will be fraction between 0 to 1.

Walter's model is based on the following assumptions:

1. All investment are financed by the firm through retained earnings; debt or share capital is not issued.
2. The firm's internal rate of return, r, and the cost of capital k, are constant so that business risk is not changed with additional investment proposals.
3. All earnings are either reinvested internally or distributed as dividends.
4. There is no change in the key factors, namely, beginning earnings per share E, and dividends per share, *D*. The value of *E* and *D* may be and *D* are assumed to remain constant in determining a given value.
5. The firm has a very long or perpetual life.

One of the formulas given by Walter is:

$$P = \cfrac{D + \cfrac{r}{k}(E - D)}{K}$$

Where, P = market price per equity share

D = dividend per share

E = earnings per share

r = return in investment

k = cost of capital or market capitalization rate.

In Walter's model, the optimal dividend pay – out ratio is determined by varying "*D*" until one gets the maximum market price per share. His views on the optimal dividend pay – out ratio may be summed up as follows:

(a) When r > k

This generally refers to the situation of growth firms which have an abundance of profitable investment opportunities so that returns from investments exceed the cost of capital. These firms should retain all earnings for investment if the value per share is to be maximized. In other words, when r > k, the dividend payout ratio should be O, i.e., P will be maximum when D = O or P increases as payout ratio decline.

(c) When r < k

This represents a situation of **declining firms** which do not have profitable investment opportunities to reinvest their earnings. Here, rate pf return, from new investments, r, is less than the cost of capital, k, so that retention is not profitable. In this situation the firm should distribute the entire earnings in the form of dividend instead of retaining them in the firm for re – investment. The may enable the shareholders to get a higher return from investment elsewhere. Thus, when r < k, market value per share increases as dividend payout ratio increases; *P* will be maximum when payout ratio is 100% i.e., *E = D,* i.e., entire earnings are distributed as dividend.

(c) When r = k

The refers to the situation of **normal firms** which generally do not have unlimited profitable investment opportunities (i.e., r > k. Therefore, once profitable investment opportunities have been exhausted, the return from investment, r, equals to the cost of capital, k. As soon as r equals k, the dividend policy of the firm does not affect the market price of share. That is, the market prices per share become insensitive to the payout ratio. Thus, if r = k, there is no one optimum dividend policy – one dividend policy is as good as the other.

It can thus be stated that, in Walter's model, the dividend policy of the firm is dependent on the availability of profitable investment opportunities and the relationship between firm's cost of capital, k, and internal rate of return, r. The firm should retain all earnings if r > k, should distribute them entirely if r < k and would remain indifferent if r = k.

Criticisms

Walter's model is based on certain assumptions. Some of his assumptions do not hold well in the real world situations. We elaborate on them.

In the **first,** place, it is assumed that all investments are financed by the firm through retained earnings. Thus, it ignores the benefits of optimum capital structure by assuming financing by retained earnings only. Because even if a firm has attained an optimum capital structure, the said structure should also be maintained in future financing to get the advantages of optimum capital structure. Thus, viewed from this particular assumption, it can be said that Walter's model would have limited application. That is, it is application to firms either financed by equity only or to firms which do not want to retain a given debt – equity norm.

Secondly, Walter states that the shares of the firm, where r > k, would have the highest market value if no dividends are declared. Similarly, where r < k,

declaration of the highest possible dividends will result in the maximum possible price of its shares. Both of these situations are abnormal and impracticable. Actual share prices in such situations are likely to be much different from those determined by the formula.

Thirdly, It is assumed in the Walter's model that internal rate of return, r, would remain constant. This stands against real world situations are r generally declines when more and more investment proposals are taken up by the firm. The internal productivity of retained earnings, r, in not also precisely quantifiable. This is because the fortunes of different industries keep on shifting and depending upon their market position the rate of return on investment, r, increases or decreases.

Fourthly, the assumption that cost of capital also remains constant may not hold well in practice. If practice. If the risk complexion of the cost of capital would remain constant, Walter's model ignores the effect of risk on the value of the firm.

Finally, Walter's ignores the fact that the market prices of shares are dependent on many factors and the present value of the future expected dividend is only one of them. For example, the share markets also move because of their own momentum – upward in bull phase and downward in a bear phase. Similarly, a large number of other factors affect share market. Not all of these are rational factors – a fact which has not been taken into account by Walter.

It may therefore be concluded that whereas Walter's model shows the basic relationship which partially affect the market value of share, its precision is largely doubtful.

The Gordon's Model of dividend policies

Gordon contends that dividends are relevant and that dividend policy affects the firm. Gordon's model is based on the following **assumptions**:

1. The firm is an all-equity firm. Only retained earnings are used for financing acceptable investment opportunities; no external financing is available.

2. The internal rate of return, *r,* and cost of capital, or the capitalization rate, *k,* are constant.

3. The firm has an infinite or perpetual life.

4. Corporate tax does not exist.

5. The retention ratio, *b,* once decided upon is constant. Thus, the growth rate, $g = br$, is also constant.

6. Cost of Capital, *k,* greater than the growth rate, *br,* = *g* e.g., *k* > *br* = *g.*

According to Gordon, the market value of a share is equal to the present value of an infinite future stream of dividends. Thus-

$$P = \frac{D1}{(1+k)} + \frac{D_2}{(1+k)^2} + \ldots + \frac{D_a^{\;a}}{(1+k)^a} = \sum_{t=1}^{a} \frac{D_t}{(1+k)^t}$$

A simplified version of Gordon's model is expressed as follows:

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

Where *P* = Price of share

    E = Earnings per share

    b = Retention ratio i.e, percentage of earnings retained

    k = Cost of capital or capitalization rate

$br = g$ = Growth rate in r.

r = Rate of return of investment.

In the Gordon's model also, the dividend policy of the firm is dependent on the availability of profitable investment opportunities and the relationship between firm's cost of capital, k and the internal rate of return, r. the position may be summed up as follows:

(a) Growth Firms, r > k

The value per share, P increases in the retention ratio, b., That is, P increases with decrease in dividend payout ratio (D/E). In other words, when r > k, the firm should distribute lesser dividend and retain higher amount from earnings.

(b) Normal Firms, r = k

The market value per share is not affected by the dividend policy of the firm. It may be stated that under competitive conditions, k must be equal to the rate of return, $k,$ available to investors in comparable shares so that any funds distributed as dividend may be invested in the market at the rate equal to the firm's internal rate of return. Consequently, shareholders can neither gain nor lose by any change in the firm's dividend policy and the market value of share must remain unchanged. Accordingly, one dividend policy is as good as the other.

(c) Declining Firms, r < k

The value per share $P,$ decreases with the increase in retention ratio, $b.$ That is, P increases with increase in payout ratio. Thus, when r < k, retention of profit becomes undesirable form the shareholders points of view. Each additional rupee retained reduces the amount of funds that shareholders could invest at a higher rate elsewhere and thus further depresses the value of the share of the firm.

Some of the assumptions of this model are identical with those made in Walter's model. Accordingly, the conclusions are more or less similar to those made in case of Walter's model. In other words, when r =k, dividend policy has no relevance to the value of the share; when r < k, the firm firm should distribute all earnings as dividend. When r > k, the firm should retain earnings so long as the value of b does not exceed k/r, for any value of b exceeding k/r but less than, 1, (k- br) becomes negative thus giving negative value for *P*. These absurd values are obtained because of some of the unrealistic assumptions of the model, such as k and r are constant.

Dividends and Uncertainty

Gordon modifies some of his simplifying assumptions to conform them more closely to reality and also holds that the value of the firm is not independent of its dividend policy even when r = k. this is, dividend policy of the firm also affects the value of the share **under condition of uncertainty** when r = k> His arguments under this situation are based on two assumptions:

(i)   that the investors are risk averse, and

(ii)   that they put a premium on certain returns than uncertain returns.

The investors would prefer near dividend to future dividends because uncertainty invertors, would tend to discount distant dividends at a higher rate than the rate used for discounting near dividends. Viewed in the context of uncertainty, the appropriate discount rate of the cost of capital, k, cannot, therefore, be assumed to remain constant; it rather increases with uncertainty. The discount rate would very with the level of retained earnings.

Gordon's model reflects the sentiments of the shareholders whose main motive is to earn dividends. Viewed against this background it is a more realistic model. But it is not free from certain **criticisms.** We know

that shareholders will have a preference for current dividend to future dividends. This may not be true. Because of low capital gains tax, shareholders belonging to high tax – brackets may have a preference for capital gains (caused by high retention and profitable investment) than current dividends.

Modigliani's – Miller irrelevance

According to M – M theory, the dividend policy of the firm is irrelevant it does not affect the wealth of shareholders. They contend that the **value of the firm is determined solely by the earning power on the firm's assets or its investment policy and that the manner in which the earnings stream is split between dividends and retained earnings does not affect the value of the firm.** M – M's theory of irrelevance of dividend is based on the following **assumptions:**

1. **The firm operates in perfect capital markets** – This implies: (a) availability of information of all without cost; (b) absence of all kinds of transaction cost and (c) inability on the part of an individual investor to affect the market price of a share.

2. **All investors are rational** – This means that shareholders would like to maximize their wealth and are, indifferent between 'dividends' and 'share price appreciation' to maximize their wealth.

3. **Taxes do not exist** or there is no tax different between dividends and retained earnings or between dividends and capital gains.

4. The investment policy of the firm is fixed.

5. All investors are perfectly certain about the future investment programmes and future profits of all firms. M – M drop this assumption later.

M – M's argument is that the effect of dividends on wealth of the shareholders is offset exactly by the effect of other means of financing. Thus, the shareholders would be indifferent between dividend and retention of earnings.

It may be stated that given its investment decision, a firm has two alternatives: (a) it may retain earnings to finance the investment programme, or (b) distribute earnings as dividends and raise an equal amount by issuing new share to finance the investment. When dividends are paid to the shareholders, the market price of the shares increases. But the issue of an additional number of shares causes a decline in the terminal value of the shares. Thus, the market price before and after terminal value of the shares. Thus, the market price before and after payment of dividends would be the same. The effect of dividend payment on shareholders' wealth is exactly offset by the effect of raising additional share capital. The shareholders would then be indifferent between dividends and retention of earnings.

There would be no difference to the M – M hypothesis if debt capital is used for financing investment instead of new block of equity as about. This is because of their indifference thesis in respect of leverage – the cost of capital is independent of leverage and the real cost of debt is the same as the real cost of equity financing. Therefore, according to M – M, the means of external financing used to offset the payment of dividend does not affect their hypothesis that dividends are irrelevant. If dividends are irrelevant, a firm's cost of capital would be independent of its dividend

payout ratio. If both leverage and dividends are irrelevant, the firm would be indifferent as to whether investment opportunities were financed with debt, retained earnings, or equity issue. One method of financing would be as satisfactory as the other.

When the assumption of complete certainty is replaced by **uncertainty, M – M** argue that dividend policy continues to be irrelevant. This is based upon the familiar **arbitrage process.** When two firms are identical in respect of business risk, prospective future earnings and investment policies, the market prices of their shares must be fine same. This occurs when all investors behave rationally in preferring more wealth to less wealth. According to M – M, differences in current and future dividend policies cannot affect the market value of the two firms, for the current value of prospective dividends plus terminal value are the same. **So, even under continue to uncertainty, M – M continues to maintain that, given the investment policy of the firm, the dividend policy is irrelevant.**

Proof of M – M Hypothesis (Irrelevance of dividends)

According to M – M, the market price of a share at the beginning of a period is defined as equal to the present value of the dividend paid at the end of the period plus the market price at the end of the period. Thus,

$$P_0 = \frac{1}{(1 + k)} (D_1 + P_1) \qquad \dots (1)$$

Where, P_0 = market price per share at time 0;

k = cost of capital or capitalization rate (= r);

D_1 = dividend per share at time 1;

P_1 = market price per share at time 1.

When there is no external financing, the value of the firm (V) would simply be the number of share (n) times the price of each share (P_0).

Thus,

$$V = nP_0 = \frac{n\,(D_1 + P_1)}{(1 + k)} \qquad \ldots (2)$$

If new shares (m) are to be issued to finance investment programme at the 1 at a price of P_1 the value of the firm at time 0 will be:

$$V = nP_0 = \frac{n\,(D_1 + P_1) + mP_1 - mP_1}{(1 + k)}$$

$$= \frac{n\,D_1 + {}_nP_1 + mP_1 - mP_1}{(1 + k)}$$

$$= \frac{nD_1 + (m + m)P_1 - mP_1}{(1 + k)}$$

The above equation (3) implies that the total value of the firm at time 0 is the present value of total dividends paid at time 1 on all its shares plus the total value of all shares outstanding at time 1, less the total value of the new shares issued. (in effect Equation 3 is equivalent to Equation 2). The total amount of new shapes issued is:

$$_mP_1 = I - (E - {}_nD_1) \qquad \ldots.(4)$$

Where,

I = total new investment during period 1

E = earnings of the firm for the period.

The total amount of financing by new shares is determined by the amount of investments in period 1 not financed by retained earnings. By substituting Equation (4) into Equation (3) M – M find that the $_nD_1$ term cancels out as follows:

$$nP_0 = \frac{nD_1 + cn + m)\ P_1 - mP_1}{(1 + k)}$$

$$= \frac{nD_1 + (n + m)\ P_1 - (I - E + nD_1}{(1 + k)}$$

$$= \frac{(n + m)\ P_1 - I + E}{(1 + k)}$$

Equation (5) above shows that the value of the firm is independent of its dividend policy. This is because D_1 does not appear directly in the expression and because $(n + m)\ P_1,\ I,\ E$ and k are assumed to be independent of D_1.

Criticisms of M – M Hypothesis

Modigliani and Miller have developed a logically consistent theory on dividend policy. Whether the M – M hypothesis provides a satisfactory framework depends, in the ultimate analysis, on whether external and internal assumptions. The validity of the assumptions, however, can question.

M – M assumed a **perfect capital market.** But this assumption does not usually hold well in many countries. This is more so in developing countries like India. Similarly, transaction costs like commission, brokerage, stamp duty, etc., can be quite substantial for small transactions. The market imperfections imply that investors would like the firm to retain carvings to finance investments rather than raise the amount externally.

The assumption with regard to **taxation** is also unrealistic. In fact taxes do exist and there is a tax differential between dividends and retained earnings or between dividends and capital gain. Thus, the presence of a tax differential which has a favourable bias on capital gains vis-à-vis dividend vitiates the validity of the M – M hypothesis.

The validity of M – M hypothesis is also questionable under conditions of **uncertainty.** It may be recalled that, according to M – M dividend policy is as irrelevant under conditions of uncertainty as it is when perfect certainty is assumed. According to M – M, when two firms are identical in respect of business risk, prospective future earnings and investment policies, the market prices of their shares must be the same. But a contrary view is held by many. According to them dividends are relevant under conditions of uncertainly as payment of the same resolves uncertainty in the minds of the investors. Therefore, they prefer dividend to capital gains. An example on the point is the argument given by Gordon. According to him, investors are risk – averse and they prefer near dividends to future dividends. So future dividends are discounted with a higher rate than near dividends. This means that the discount rate increases with uncertainty. This effect the value of the firm. So contention of M – M is this respect too does not appear to be tenable.