There are several factors, including procedural and legal considerations as well as financial and other considerations, which influence a company's dividend policy in practice.

Dividends are generally paid twice a year. A company's Board of Directors, when it announces a cash dividend, specifies a date on which the books will close. For shares listed on a Stock Exchange, the rules of the exchange specify the number of days before the date the books close that shares are traded ex-dividend. The ex-dividend date is usually ten business days before the books close. Investors who purchase shares prior to that date are entitled to the dividend; those who purchase
shares after that date are not. Theoretically, the shares' market price should fall by an amount equal to the amount of the dividend when the shares go ex-dividend. However, as many factors influence the market price of shares, this effect it seems is generally difficult to isolate and measure.

Legally, a company's cash dividend may only be paid out of profits and is not to be paid out of capital in terms of Section 205 of the Companies Act, 1956. Profits in this context include the accumulated retained earnings as well as the current year's net profit. Capital must not be returned to shareholders unless the company follows the procedure for reducing its capital or is in the process of being wound up. Normally, a company's cash dividend is a proportion of its current year's income. If the company's proposed dividend is legal, its dividend policy then evidently becomes a matter of financial feasibility. If a company's ability to make a new issue or raise a
debt is restricted, it is likely that it will retain a higher proportion of its profit than a company which has ready access to funds from the capital markets. Companies which are likely to have difficulties in raising funds on the capital market include small companies, new companies, and companies in what may be termed venture capital fields.

If a company's operating profit is relatively stable it is better to be able to predict its future operating profit. A company in this position is therefore more likely to pay out a higher proportion of its profit in dividends than a company with a profit which fluctuates from one year to the next. This seems to be an obvious consideration when the board of directors is determining the company's dividend policy.
The effects of inflation may also have an impact on a company's dividend policy. In the absence of a current value accounting system, it is possible for management inadvertently to distribute profit in excess of what should be retained in order to maintain the company's earning power. In such circumstances a case can be made for the retention of profits so as to ensure that the company's earning power is maintained intact.

For each company there will be specific factors which influence the dividend policy decision for that company. For example, a company facing the possibility of a takeover bid may increase the proportion of its profit paid out in dividends in order to retain the support of its shareholders. The Board of Directors may adopt such a policy in order that it may retain control of the company's operations. A company's dividend policy is therefore influenced by a company's investment and financing decisions and by other
factors including legal considerations, the availability of cash, and the desire to maintain the control of the company in existing hands.

There seems to be a mistaken view to treat retained earnings as cost-free funds. This view seems to rest on the assumption that the company is separate from the equity shareholders and that it costs the company nothing to withhold the earnings from them. Retained earnings, in fact, are not without cost. The cost of reinvested profits to shareholders is the opportunity cost of such funds to them.

It is equal to the income that they would otherwise obtain by placing these funds in alternative investments.

The opportunity cost of retained earnings to the shareholders is the rate of return that
they can obtain by investing the after-tax dividends in alternative opportunities of equal quality. If earnings are paid as dividends and a simultaneous rights offer is made, shareholders would be subject to tax on the dividend and would only be able to subscribe an amount equal to $(1 - T)D$, where $T$ stands for the marginal tax rate applicable to the individual shareholder and $D$ for dividends. To be as well off as he would be under the rights offering, it is necessary that the value of his shares rises by an amount which, after making due provision for any tax on capital gains, is equal to the net dividend he would have received after tax. Thus, the cost of retained earnings can be expressed as:

\[
\frac{(1 - Ti)D}{(1 - Tc)P}
\]

where $Ti$ stands for marginal income tax and
Tc for capital gains tax. For instance, if a company is paying a dividend of Re 1 per share and its shares yield 12.50% at a market price of Rs 8, then the required rate of return for a shareholder in the 60% tax bracket subject to a capital gains tax rate of 20% is:

\[
\frac{(1-0.60) \times 1.00}{(1-0.20) \times 8.00} = 6.25\%
\]

However, for a shareholder in the 40% marginal tax bracket subject to a capital gains tax of only 20%, the required return would be:

\[
\frac{(1-0.40) \times 1.00}{(1-0.20) \times 8.00} = 9.375\%
\]

For the non-taxable shareholder, the minimum required return would be the full 12.50%.
It may thus be apparent that the cost of retained earnings to a firm is claimed to be a function of personal income tax rates of its shareholders. But the multiplicity of the shareholders' tax rates makes the application of this approach rather difficult. In a publicly held company, there are great number of shareholders of various means and incomes and, therefore, there can hardly be a single tax rate that would correctly reflect the opportunity cost of retained earnings to every shareholder. Even in a closely held family business, not all its owners are exactly alike in respect of their positions regarding incomes and taxes. The management has to exercise its judgement in selecting the marginal tax of "typical" shareholders. This is obviously not an easy task.

As a practical matter, if the overall rate of return on equity capital is determined by using the market value of ordinary shares the need for determining the separate rate for
The cost of equity obtained by retained earnings can be defined as the rate of return shareholders require on the firm's ordinary shares. The value of an ordinary share depends, ultimately, on the dividends paid on the shares:

\[ P_0 = \frac{D_1}{(1+K_r)^1} + \frac{D_2}{(1+K_r)^2} + \frac{D_t}{(1+K_r)^t} \]

Here \( P_0 \) is the current price of the shares; \( D_t \) is the dividend expected to be paid at the end of year \( t \), and \( K_r \) is the required rate of return. If dividends are expected to grow at a constant rate, the above equation reduces to:

\[ P_0 = \frac{D_1}{K_r - g} \]

(where 'g' is the anticipated growth rate).
In equilibrium, the expected and required rates of return being equal,

\[ Dl \]
\[ Kr = \frac{Dl}{Po} + \text{expected } g \]

Considering a firm with an expected earning of Rs 2 per share and dividend of Re 1 and overall anticipated growth of about 5 per cent a year and assuming current market price of Rs 20 a share, the required rate of return on the share in equilibrium, will be:

\[ Kr = \frac{Re 1}{Rs 20} + 5\% = 10\% \]

The expected growth rate for the price of the shares is 5 per cent, which, on the Rs 20 initial price, should lead to a Re 1 increase in the value of the share, to Rs 21. This price increase will be
attained if the firm invests Re 1 of retained earnings to yield 10 per cent.

However, if Re 1 is invested to yield only 5 per cent, then earnings will grow by only 5 paisa during the year, not by the expected 10 paisa a share. The new earnings will be Rs 2.05, a growth rate of only 2 1/2 per cent. If investors believe that the firm will earn only 5 per cent on retained earnings in the future and attain only a 2 1/2 per cent growth rate, they will reappraise the value of the share downward according to example 2 as follows:

\[
\text{Po} = \frac{D_1}{K_r-g} = \frac{\text{Re 1}}{0.10-0.025} = \frac{\text{Re 1}}{0.075} = \text{Rs 13.33}
\]

This means that the firm will suffer a decline in the value of its shares if it invests retained earnings at less than its
rate of return. Thus, if a firm earns less than \( Kr \), the share price will fall; if it earns more, the share price will rise. On the other hand, if a firm earns its required rate of return, \( Kr \), then when it retains earnings and invests them in its operations, its current stock price will not change as a result of this financing and investment.

The cost of new ordinary shares, or external equity capital, is higher than the cost of retained earnings because of floatation costs involved in selling new equity shares. What rate of return must be earned on funds raised by selling shares to make the action worthwhile can be found from the following formula:

\[
Ke = \frac{D_1}{Po (1-F)} + g = \frac{D_1}{P_n} + g = \frac{\text{Dividend yield}}{\text{Po (1-flotation percentate)}} + \text{growth}
\]
Here \( F \) is the percentage cost of selling the issue, so \( P_0 (1 - F) = P_n \) is the net price received by the firm. For example, if \( P_0 = \text{Rs} \, 20 \) and \( F = 10 \) per cent, then the firm receives \( \text{Rs} \, 18 \) for each new share sold; hence \( P_n = \text{Rs} \, 18 \). This approach is strictly applicable only if future growth is expected to be constant:

\[
\frac{\text{Re} \, 1}{\text{Rs} \, 20 \, (1 - .10)} + 5\% = 10.55\%
\]

If the firm earns 10.55 per cent on investments financed by new ordinary shares, then earnings per share will not fall below previously expected earnings; its expected dividend can be maintained; the growth rate for earnings and dividends will be maintained; and, as a result of all these, the price per share will not decline. If the firm earns less than 10.55 per cent, then earnings, dividends and growth will fall
below expectations, causing the price of the stock to decline. As the cost of capital is defined as the rate of return that must be earned to prevent the price of the stock from falling, we see that the company's cost of external equity $K_r$, is 10.55 per cent.

Thus, the basic rate of return which investors require on a firm's ordinary share is the most important quantity. This required rate of return is the cost of retained earnings, and it forms the basis for the cost of capital obtained from new share issues.

The expected rate of return is analogous to the internal rate of return on a capital project. It is the discount rate that equates the present value of the expected dividends and final share price to the present share price. It consists of two
components: an expected dividend yield and an expected capital gains yield,

\[
K_s = \frac{\text{Expected dividend}}{\text{Present price}} + \frac{\text{Expected increase in price}}{\text{Present price}} = \frac{D_1}{P_0} + g
\]

Share prices can be said to be determined as the present value of a stream of cash flows. For an individual investor, cash flow consists of dividends plus capital gains. We have to measure the rate of growth at which dividends are expected to increase. If future growth is expected to be zero, the value of the share reduces to the following formula:

\[
P_0 = \frac{D_1}{K_s} = \frac{\text{Dividend}}{\text{Capitalisation rate}}
\]

Solving for \(K_s\), we obtain

\[
K_s = \frac{D_1}{P_0}
\]
which states that the required rate of return on a share that has no growth prospects is simply the dividend yield.

A company has to employ a combination of creditors' and owners' funds. The composite cost of all capital lies between the least and the most expensive funds. This approach enables the maximisation of corporate profits and the wealth of the equity holders by investing the funds in projects earning in excess of the cost of its capital-mix.

The cost of retaining earnings is an opportunity cost i.e., the benefits that the shareholders forego by leaving the funds in the business. Such benefits differ for individuals since the funds would be taxed and used differently for consumption and for reinvestment. These benefits are difficult to measure. This problem can be resolved by
studying as closely as possible the economic status and investment practices of the present shareholding group. In large companies, having widely scattered shareholders, this task may cost more than its worth. For calculating the cost of retaining earnings, the first step is to determine the net amount of funds available for distribution, assuming that the company does not want to curtail its future operations by reducing its capital structure. If the structure of capital is to be maintained for future, internal funds have to be replaced with external which involves a cost. The second step is to adjust for the taxes that the shareholders will pay on the dividend income. These factors can be incorporated into the following formula for finding out the cost of retaining earnings.

Cost of retaining earnings:

\[
X = [D-C \times (1-BTR)] \times (1-STR) \times [1-STR] \times R
\]
where:

\[ X = \text{Rupee cost of retained earnings} \]
\[ D = \text{Gross amount of dividend} \]
\[ C = \text{Cost of replacing the funds paid out as dividends} \]
\[ BTR = \text{Business tax rate} \]
\[ STR = \text{Shareholders tax rate} \]
\[ R = \text{Rate of return that the stockholder is able to earn by investing his dividend income.} \]

It is suggested that a company should analyse the cost of retaining Rs 50,000 (D) which are otherwise available for dividend. The cost of replacing the capital paid out as dividends is assumed at 8 per cent, i.e., \( \frac{8}{100} \times 50,000 = 4,000 \) (C); the tax rate for company's income is 55% (BTR); the dividends received by the shareholders are assumed to be taxed at 25% (STR) on the average as also their income from reinvesting the dividends. The
shareholders could earn 10% (R) by investing their dividends. Then the cost of retaining earnings will be:

\[ X = [D - C (1 - BTR)] (1 - STR) x [(1 - STR) x R] \]

Against Rs 2,711 income lost to the shareholders by retaining the earnings we may balance the cost of distributing the earnings which is an opportunity cost equal to the profits that might have been earned for the shareholders by using the funds in the business. This may be considered as the rate of return earned by the business after taxes on the amount of retained earnings.

We may assume three internal rates of return - 8%, 6%, and 4% - to illustrate this point. The cost of distributing earnings under these assumed rates of return is as follows:
After - tax 8% 50,000 x \[ \frac{8}{100} \] = 4000

6% 50,000 x \[ \frac{6}{100} \] = 3000

4% 50,000 x \[ \frac{4}{100} \] = 2000

Ratio of cost of retaining earnings to:

\[
\frac{\text{Rupee cost of retaining earnings}}{\text{Rupee cost of distributing earnings}} \quad \text{Rupee cost of retaining earnings}
\]

\[
\frac{\text{Rupee cost of retaining earnings}}{\text{Rupee cost of distributing earnings}} \quad \text{Rupee cost of distributing earnings}
\]

\[
\frac{2711}{4000} = 0.678 \quad \frac{2711}{3000} = 0.904 \quad \frac{2711}{2000} = 1.356
\]

The value of this ratio gives a meaningful indication that in situations (a) and (b) the cost to the shareholders of leaving the funds in the business is less than 1.
the cost of having them distributed. In other words, it may be considered to be more profitable to the shareholders to leave this particular sum in the business. As the ratio rises, it may become less profitable to retain the funds. For example, ratio is 0.904 under situation (b) as compared to 0.678 in (a) due to reduction in internal rate of return from 8% to 6%. With the rate of return falling to 4% (situation c), the ratio increases to 1.356 and it is not advisable to encourage retention of earnings under such a situation. As a general policy rule, it is suggested that the Company may retain earnings as long as the ratio of cost of retaining earnings is less than 1.

The dividend policy, in practice, is framed after weighing carefully the delicate considerations rather than by adoption of precise mathematical formulations. After formation of a company, it takes sometime before the company breaks even whereafter it starts making small profits. The initial profits may go towards gradual wiping out of accumulated losses of the first few years of operation. After this stage, profits start becoming available for distribution. However, profit at the
initial stage does not usually become high enough to be distributed as reasonably handsome dividend. The trend is to retain the initial earnings so that a minimum reserve can be built up. As the business grows and more profits are generated, it becomes important that profit be distributed to the shareholders as dividend. The company has three options at this stage:

(a) to retain the entire profit in the business;
(b) to distribute the entire profit to the shareholders as dividend; and
(c) to retain part of the profit in business and distribute the balance as dividend.

Though the companies may distribute the entire profit to the shareholders as dividend as a matter of exception, with the growth of business it is the usual practice to distribute part of the profit as dividend and retain the balance to meet the future business needs. This can be shown by means of the following graph:

![Graph showing the distribution of profits over years with lines for Retained Earnings and Dividend against Amount and Year axes.]
The above graph shows the growth of distributable profit with the passage of time and payment of dividend during these years, which also grows but at a much slower rate, thus generating more retained earnings as time passes by. A part of these retained earnings is utilised in business and part is capitalised by issue of bonus shares to the shareholders from time to time. This way the cycle continues.

While the company should follow the 'golden mean' path of part retention and part distribution, it is a matter of judgement as to how much of the profit should be retained and how much should be distributed. Judgement depends on the external and internal factors which influences the company's dividend policy. These have been discussed in detail in Chapter III. While many factors are general in nature and influence dividend policy of the corporate sector as a whole, there are several factors which are specific in nature and influence the policy of only the concerned company. Mathematical formulations have been used in this Chapter to find out the cost of retained earnings, anticipated rate of return for maintaining accepted dividend yield and the point up to which retention of earnings can be encouraged.
Theoretically, one may argue that a company should retain earnings as long as their use can bring a return which is above the company's cost of capital. It may continue to the point at which the incremental return is just above the cost of capital. Retention policy may be directed towards maximising the market value of the ordinary share over the long run. Funds may be retained to the point that the incremental rate of return for the company just exceeds the average rate of return for the industry.

However, in practice a company is recommended to make a balanced judgement between the needs of the company for additional funds and the requirements of shareholders for regular income and capital appreciation. As stated above, the factors that will influence the dividend policy will vary from company to company and industry to industry depending on its own peculiarities. In the following Chapter a study has been made of the sterling tea companies including factors which influence their dividend and retention policies.
### BIBLIOGRAPHY

#### CHAPTER V

<table>
<thead>
<tr>
<th>Authors</th>
<th>Publications</th>
</tr>
</thead>
<tbody>
<tr>
<td>JE Walter</td>
<td>Dividend Policy and Enterprise Valuation (Wadsworth Publishing Co, California)</td>
</tr>
<tr>
<td>JA Brittain</td>
<td>Corporate Dividend Policy (The Brookings Institute, Washington DC)</td>
</tr>
<tr>
<td>MJ Macdormack</td>
<td>Financial Management</td>
</tr>
</tbody>
</table>

150