CHAPTER IV
The term 'Capital Structure' is elastic in its interpretation. In its widest sense, it is used to denote the relative importance of the sources from which funds are obtained, irrespective of the purpose for which they are acquired. In the narrower sense, however, it represents the relationship between owner's funds and the funds borrowed on a long-term basis to finance the fixed assets of the enterprise. Owner's funds include not only the initial contributions but also the subsequent additions made from time to time either from 'retained earnings' or from fresh funds introduced by the owners for expansion and modernisation of the unit. Owner's funds indicate internal claims of the proprietor against the business. Borrowed funds, by contrast, indicate external claims of the creditors over the assets of the enterprise. They may come from institutional sources like Banks, Finance Corporations, and other specialised institutions, or they may be received from Friends and Relatives, or even from Professional Money Lenders.
In evaluating the capital structure of an enterprise only long-term funds are considered. Short-term loans, despite their importance for working capital requirements, are ignored on the plea that they would be automatically taken care of, once the long-term funds for setting up the enterprise have been secured.

The ratio of Debt to Equity (borrowed funds to owned funds) is generally taken as an index for assessing the capital structure of an enterprise. The higher this ratio the greater is the risk and the greater the burden on the business. The interest on the borrowed funds has to be paid, irrespective of the profitability of the concern. Owner's funds do not carry this burden. They share the residue after payment of external claims of the creditors. In this sense, a capital structure which is geared to high debt equity ratio is usually considered to be weak and unsafe compared to one which shows low debt in relation to owned funds.

There is no unanimity of opinion among financial experts in regard to what an optimum debt-equity ratio should be. It could be high for capital-intensive industries or for projects of a highly technical nature. It could be low for labour -
intensive industries or industries requiring relatively less sophisticated technology. Generally, for small units, the ratio has to be lower, compared to that for large units. A ratio in excess of 2:1 is considered unsafe even for big units. For small units, according to us, the ratio should be kept within 1:1 so that the liquidity of these units is not impaired and their solvency not endangered. Debt should be low so that it could be serviced without severe hurdles. Profitable small scale units can afford a higher Debt-Equity ratio, nonetheless.

Factors Determining Optimum Debt-Equity Ratio:

Determination of an optimum mix of debt and equity in the capital structure of an enterprise is a highly difficult job, requiring considerable technical skill and insight into business conditions and opportunities. The main factors which have to be considered in devising such a mix are:

1) Cost of capital, both own and borrowed,
2) Risk involved,
3) Effect on future borrowings,
4) Chances of external interference with firm's policies and
5) Prospects of profits through expended loans after meeting interest, depreciation, taxes etc.
The above factors require knowledge of the market conditions, risk-assuming attitudes and capacities of the proprietors, policies of the lending institutions, nature of the business operations and the extent of freedom required to control them, tax policies of the Government and the changes in economic and political environment generally. To assess their impact over a long period is obviously an uphill task.

**Capital Structure of the Sample Units:**

The main constituents of capital structure of the sample units have been as under:

1) proprietor's funds contributed from time to time;
2) reserves and surpluses ploughed back into business; and
3) loans from institutional agencies like banks, Karnataka State Finance Corporation (KSFPC) and others.

The relative proportion of the above components in the capital employed by the units varied considerably from industry to industry and from unit to unit in the same industry. There were also changes in this proportion over the study period indicating greater increase in the first component, compared
to that in the third. Generally, own funds have been found
to occupy a dominant position in the capital structure of
almost all the groups — agro based, non-agro based, small
and large alike. That is even more significant, this domi-
nance increased over the years covered by the study. As a
result, the importance of loans (Debt) declined. There were
various reasons for this which would be examined in a latter
section. The structural aspect is presented in Tables 4.1 and
4.2.

A careful perusal of the below tables leads to the
following conclusions.

1) The relative contribution of own funds in the agro
based units was higher compared to that in non-agro based
units. The average for the five year period for the former
works out to 64.27 per cent compared to only 61.10 per cent
for the latter group. In both the cases, however, it was high.

2) 'Retained Profits' (Reserves) played a more important
role in the non-agro based units (6 per cent average), compared
to their role in the agro based units (3.48 per cent).

3) The Debt/Equity Ratio (Ratio of Borrowed Funds to Own
Funds) was much lower for the agro based units (Average 0.56)
compared to non-agro based units (Average 0.63).
BORROWED FUNDS

AGRO BASED
CAPITAL STRUCTURE OF THE SAMPLE UNITS BOTH AGRO AND NON-AGRO BASED DURING 1980-81 TO 1984-85


OWN FUNDS
BORROWED FUNDS

AGRO BASED
NON-AGRO BASED

CAPITAL STRUCTURE OF THE SAMPLE UNITS BOTH AGRO AND NON-AGRO BASED DURING 1980-81 TO 1984-85

Fig. 3
### Table 4.1

**Capital Structure of the Female Units During 1980-81 to 1984-85 (Average Percentages) (By Industry)**

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Own Funds:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) Capital</td>
<td>Agro</td>
<td>53.46</td>
<td>58.20</td>
<td>61.68</td>
<td>64.84</td>
<td>65.76</td>
<td>60.79</td>
</tr>
<tr>
<td></td>
<td>b) Reserves &amp; Surplus</td>
<td>Agro</td>
<td>2.46</td>
<td>2.99</td>
<td>3.34</td>
<td>4.20</td>
<td>4.44</td>
<td>3.48</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td>55.92</td>
<td>61.19</td>
<td>65.02</td>
<td>69.04</td>
<td>70.20</td>
<td>64.27</td>
</tr>
<tr>
<td></td>
<td>a) Capital</td>
<td>Non</td>
<td>49.84</td>
<td>52.26</td>
<td>55.18</td>
<td>58.41</td>
<td>59.75</td>
<td>55.09</td>
</tr>
<tr>
<td></td>
<td>b) Reserves &amp; Surplus</td>
<td>Non</td>
<td>4.92</td>
<td>5.55</td>
<td>6.25</td>
<td>6.62</td>
<td>6.74</td>
<td>6.01</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td>54.76</td>
<td>57.81</td>
<td>61.43</td>
<td>65.03</td>
<td>66.49</td>
<td>61.10</td>
</tr>
<tr>
<td>2.</td>
<td>Borrowed Funds</td>
<td>Agro</td>
<td>44.08</td>
<td>38.81</td>
<td>34.98</td>
<td>30.96</td>
<td>29.80</td>
<td>35.72</td>
</tr>
<tr>
<td></td>
<td>Non</td>
<td></td>
<td>45.42</td>
<td>42.19</td>
<td>38.58</td>
<td>34.97</td>
<td>33.51</td>
<td>30.93</td>
</tr>
<tr>
<td>3.</td>
<td>Ratio of 2 to 1 that is Borrowed funds to Own funds (B/S Ratio) in respective groups</td>
<td>Agro</td>
<td>0.79</td>
<td>0.63</td>
<td>0.54</td>
<td>0.45</td>
<td>0.42</td>
<td>0.56</td>
</tr>
<tr>
<td></td>
<td>Non</td>
<td></td>
<td>0.83</td>
<td>0.75</td>
<td>0.63</td>
<td>0.54</td>
<td>0.50</td>
<td>0.63</td>
</tr>
</tbody>
</table>

**Sources:** Appendix C-1
CAPITAL STRUCTURE OF THE SAMPLE UNITS IN CONTRAST GROUPS DURING 1980-81 TO 1984-85

GROUP A
OWN FUNDS
BORROWED FUNDS

GROUP I

FIG. 4

PERCENTAGES
### Table 4.2

**Capital Structure of the Sample Units During 1980-81 to 1984-85**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Own Funds:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Capital</td>
<td>69.93</td>
<td>70.71</td>
<td>74.36</td>
<td>76.59</td>
<td>77.43</td>
<td>75.83</td>
</tr>
<tr>
<td>b) Reserves &amp; Surplus</td>
<td>2.77</td>
<td>3.37</td>
<td>4.04</td>
<td>4.56</td>
<td>4.73</td>
<td>3.99</td>
</tr>
<tr>
<td>Total</td>
<td>72.70</td>
<td>74.08</td>
<td>78.40</td>
<td>81.15</td>
<td>82.16</td>
<td>79.02</td>
</tr>
<tr>
<td>a) Capital</td>
<td>43.58</td>
<td>48.42</td>
<td>51.06</td>
<td>53.22</td>
<td>55.46</td>
<td>53.41</td>
</tr>
<tr>
<td>b) Reserves &amp; Surplus</td>
<td>5.11</td>
<td>6.04</td>
<td>6.56</td>
<td>7.06</td>
<td>7.78</td>
<td>6.33</td>
</tr>
<tr>
<td>Total</td>
<td>48.69</td>
<td>54.46</td>
<td>57.62</td>
<td>61.08</td>
<td>63.24</td>
<td>55.69</td>
</tr>
<tr>
<td>2. Borrowed Funds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>27.30</td>
<td>25.92</td>
<td>21.60</td>
<td>16.85</td>
<td>17.84</td>
<td>20.18</td>
</tr>
<tr>
<td>V</td>
<td>51.32</td>
<td>45.54</td>
<td>42.38</td>
<td>38.92</td>
<td>36.76</td>
<td>43.31</td>
</tr>
<tr>
<td>3. Ratio of 2 to 1 above that is Borrowed Funds to Own Funds (B/E Ratio) in respective groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>0.30</td>
<td>0.35</td>
<td>0.28</td>
<td>0.23</td>
<td>0.22</td>
<td>0.25</td>
</tr>
<tr>
<td>V</td>
<td>1.05</td>
<td>0.83</td>
<td>0.74</td>
<td>0.64</td>
<td>0.58</td>
<td>0.76</td>
</tr>
</tbody>
</table>

**Source:** Appendix 6-2.
4) There was a substantial step-up in the contribution of own funds during the period under review from 55.92 per cent to 70.20 per cent in agro based units and from 54.56 per cent to 66.49 per cent in non-agro based units. The contribution of Debt, consequently, has declined in both the cases. This has led to a reduction in the Debt/Equity Ratio from 0.79 to 0.42 in agro based and from 0.83 to 0.50 in non-agro based units. The increase in the contribution of Reserves was of a moderate degree from 2.46 per cent to 4.44 per cent in agro based units. On the other hand in case of non-agro based group it increased from 4.92 per cent to 6.74 per cent.

5) As between Investment Groups I and V, contribution of proprietors played a more important part in Group I (Average 75.83 per cent) than in Group V (Average 50.41 per cent), while Borrowed Funds dominated in Group V (Average 43.31 per cent), compared to Group I (Average 20.16 per cent). The contribution of Reserves was greater in Group V than in Group I (Average 6.28 per cent and 3.99 per cent respectively). As a corollary, the Debt/Equity Ratio, on an average worked out at 0.25 for Group I, compared to 0.76 for Group V.

6) What was equally important, the contribution of own funds (Capital plus Reserves) had increased from 72.70 per cent
to 62.16 per cent in the case of units falling in Group 1. In Group V, it has increased from 48.69 per cent to 63.24 per cent between 1960-61 and 1964-65. There was thus, a shift away from loans to equity in both the cases. One version was that they feared interference from institutional lenders and were scared of the formalities required to be fulfilled for such procurement. If so, their unwillingness could be understood. There was however, another version provided by the lenders (KVIC), according to which the small units lacked the requisite security (tangible and collateral) to offer against the loans and therefore were considered unworthy of the credit sought. If this version had to be relied upon, it was 'inability' rather than 'unwillingness' that kept the small units away from loans to depend on their own resources. Perhaps both the factors were responsible for the low debt-equity ratio in the capital structure of these units.

COST OF CAPITAL

In the financial folklore it is always said that a firm should have an optimum capital structure. This gives rise to the query as to what is optimum capital structure? The optimum
capital structure is one which minimises the firm's overall cost of capital and maximises the market value of shares.

Thus the cost of capital is an important concept in formulating firm's capital structure.

In the financial literature there has been a sharp controversy between two schools of thought. The traditional belief is that cost of capital is a function of capital structure. On the other hand, Modigliani and Miller (1958) held the view that the cost of capital to a firm remains invariant with the capital structure changes. However, Alexander Harges through empirical evidence confirms the traditional view and says that cost of capital is affected by changes in financial structure and that changes in financial structure may be planned, within limits, so as to minimise or maximise cost of capital.

Thus the cost of capital is the most vital concept in the financial decision making. Cost of capital may be defined as the rate that must be paid to obtain funds for the operation of the firm or equivalently, as the return that an investor in


A corporation expects after having invested proportionately in all the securities of the corporation. To simplify the discussion, if the cost of borrowing funds is \( P \) and if the corporation is planning to invest in a project which yields a return more than \( P \), then the corporation can take up the project. Thus, the cost of capital is used as a decision criterion in capital budgeting decision. Viewed this way, the cost of capital is the minimum rate of return that must be earned on an investment in the project in order to leave the market price of the firm’s equity capital unchanged. It is also called cut off rate, or the hurdle rate.

Cost of capital plays prominent role in profit planning, evaluating capital project, and managing the capital structure. In addition, the cost of capital is significant not only as an investment criterion, but can also be used to evaluate the financial performance of top management.

Similarly, measuring cost of capital becomes imperative in the areas of financial decision making like working capital policy, dividend policy etc. The cost of capital is typically

treated as known parameter when it is used as a discounting factor or as the appropriate cut-off rate.¹

Measuring the Cost of Capital:

Generally a company procures its permanent capital in the form of long term borrowings, preference shares, equity shares and ploughed back profits popularly known as reserves and surplus. These are the individual components which put together, would constitute the company's capital structure. Each component needs servicing in a specific way as agreed between the company and the providers of finance. Thus, there is a cost associated with each type of capital. In measuring the overall cost of capital the first step is to calculate each specific cost of component which is the minimum financial obligations which a company has to incur to secure the use of such capital component.

Cost of Debt:

The cost of debt is defined as the rate of return that must be earned on debt-financed investment in order to keep the

earnings of the firm unchanged. In other words it is the rate of interest at which the firm has borrowed funds. The cost of debt capital is relatively easy to measure. This cost includes the following viz.,

1) The cost of procuring the funds and legal expenses.
2) Interest expenses, and
3) Redemption cost especially if retired prior to maturity.

The use of debt in the capital structure of a corporation does enable the firm to reduce its cost of capital since the cost of raising funds and interest payments are deductible for tax purposes, and hence the effective cost of debt will be lower than before tax cost of debt. The cost of debt is proportionately reduced to the extent of marginal rate of tax. In other words the after tax cost of debt is calculated as follows:

$$ C_d = (1 - t) $$

where 'r' stands for rate of interest, 't' for the tax rate and 'C_d' for the cost of debt. If a firm borrows Rs. 1,00,000 at 18 per cent repayable in 5 years from a financial institution, the before tax cost of debt will, no doubt be 18 per cent but, if tax factor is taken into consideration it will amount to:

1. Ibid. p. 144.
\[ C_d = 18 \left(1 - 0.5\right) = 0.9 \text{ or } 9 \text{ per cent} \]

Assuming that the firm pays income-tax at a rate of 50 per cent, the effective rate works out to be 9 per cent, as against a before tax cost of debt of 18 per cent. This is precisely why debt is considered cheaper than own funds by most of the financial experts. This is, however, based on the assumption that the firm is making profits. An unprofitable firm would not be required to pay taxes, the true cost of debt in such cases would be the before tax cost, which would be certainly on the higher side.

**Cost of Preference Capital**

Preference capital is a hybrid between debt and Equity Capital. Just like debt, the preference shares carry a fixed return by way of dividend and the company is under an obligation to pay the amount every year subject to the availability of profits. Besides, at the time of liquidation they rank next to creditors/debenture holders but take precedence over the equity share holders in making their claims. So far as the firm is concerned, it is legally bound to pay interest on borrowed funds failure to pay result in bankruptcy. However, in the
context of preference capital there is no such legal binding regarding the payment of preference dividend, yet, it is a matter of serious concern to equity shareholders because the reputation of the firm would be considerably damaged, if the dividend in respect of preference share was not paid. In addition, accumulation of preference dividend arrears affects the financial interests of Equity Shareholders. An objective thinking on the part of a Finance Manager is therefore called for, before deciding to raise preference capital. The cost of preference capital is calculated with the help of the following equation –

\[ C_p = \frac{D}{P} \]

'C' is the cost of preference capital, 'D' represents fixed dividend per preference share and 'P' is the issue price of preference share. To illustrate, suppose a firm issues 10 per cent preference shares of Rs. 100 each at Rs. 95 (at discount), the cost of preference capital would be:

\[ C_p = \frac{10}{95} = 10.53 \text{ per cent} \]

Another significant factor is that cost of preference capital is not adjusted for taxes because dividends on preference shares is payable after taxes and it is not an allowable
deduction. Needless to say that cost of preference capital will be greater than the cost of debt.

Cost of Equity:

Equity capital by and large, constitutes a substantial portion in the capital structure of a company. The calculation of cost of equity capital is the most difficult one as it poses a host of problems. Theoretically speaking cost of equity capital is the rate of return that must be earned on equity financed investments to keep the value of the existing equity unchanged. From the viewpoint of shareholders they invest in equity shares with some expectations in terms of good dividends/Bonds shares etc. Thus, the cost of equity shares is directly related to the rate of return required by the equity shareholders. But it goes very difficult to quantify their expectations and, therefore, the problem of measuring cost of equity capital. The problem of quantification arises due to the capacity to bear risk. Normally return on equity share investment consists of two elements. One, payment for use of money and secondly that for undertaking risk. Higher the risk involved in the investment in equity shares, higher will be the expectation in terms of dividends. A rational investor would not turn
to equity investment unless there is a risk premium. There seems to be a consensus of opinion that the risk premium expected these days is 5 per cent to 7 per cent over the gross equivalent of the rate of interest receivable on long-term bank deposit. For example, with a rate of 10 per cent on long-term bank deposits the earnings for equities should be between 15 per cent to 17 per cent after corporation tax. ¹

Cost of Retained Earnings:

Retained earnings constitute internal finances of a company and represent the ploughed back profits. Since it is not obliged to pay under the law of the land any interest or dividend in respect of the profits so retained, no explicit cost is involved. Some of the experts on the subject therefore express the cost of retained earnings to be zero. It is however, difficult to concur with such an opinion, since there is definitely an implicit cost associated with them.

Retained earnings signify the profits foregone by the investors, with a view to enhancing future earnings. Thus, one

could identify an opportunity cost associated with such a decision of the investor. In case the expectations of the investors under reference are not realisable, they would find it financially prudent to withdraw the profits foregone and invest the same in a more attractive venture. It is therefore essential that they obtain a return on retained earnings which is at par with that obtained in respect of their capital funds.

Suppose a company wants to raise equity funds, it may obtain them from two sources - externally by the sale of additional equity shares, and internally by retained earnings and funds generated by depreciation. Their respective costs differ to a certain extent because of the flotation costs associated with new issues and the difference in tax rates between capital gains and dividend income. The cost of external equity obtained by the sale of new equity shares is given by:

\[ C_E = \frac{C}{1 - F} \]

'F' is the percentage flotation cost. Conversely, the cost of retained earnings and depreciation is given by:

\[ C_R = C (1 - T_1) \]

where \( T_1 \) is the marginal tax rate paid on capital
gains by a typical investor. These relationships infer that new outside equity capital has higher cost than that for funds generated within the firms due to flotation costs.

**Weighted Average Cost of Capital:**

Having made an attempt as to how the cost of each component in the capital structure of a firm is to be measured we now turn to know the extent to which these specific costs hold good in real situation. The traditional view is that in order to accept or reject an investment project, its rate of return should be compared with the cost of the specific sources of funds used to finance the particular project. Suppose a financial analyst estimates that the rate of return from a project is 14 per cent and the concerned company desires to finance the same through debt capital with an effective cost \( C_d \) of 9 per cent, then it appears that the financial decision is favourable. On the other hand, if the same project is to be financed by retained earnings \( C_R \) which has a cost of 16 per cent, the investment does not appear to be a prudent one. The above illustration though simple is fallacious because the firm cannot continue using a given type of funds indefinitely.
Continual use of debt financing will push the firm into a more risky zone affecting the interest of shareholders and increase in the cost of equity. Alternatively, if the firm decides to finance the project with equity, it would enhance the capacity of firm to raise debt capital in future. Because of this connection between the methods of financing and their costs, the term cost of capital should be used in the composite sense. The composite or overall cost of capital is the weighted average of the costs of various sources of funds, weights being the proportion of each source of funds in the capital structure. Thus, the phrase cost of capital implies weighted average cost of capital and not the simple average cost of capital which shall be considered while accepting or rejecting a project proposal.

While calculating the weighted average cost of capital, the cost of each component of the existing capital mix is calculated and weighted according to either book value or market value to determine the composite cost. Most of the financial experts recommend market value because of the following reasons:

1) A potential investor while committing funds would look for market rate of return, for his book value is least significant.

2) Book Value represents the past financial performance based on past financial decisions on various aspects of retentions, depreciation policies, and so on. Therefore the book value seldom represents true economic value of the enterprise.

3) Book values most of the times reflect historical cost and fail to take note of price level changes. Besides, companies are sometimes reluctant to incorporate such changes.

Because of these problems the market value is considered to be a suitable one in the context of weighting capital mix. However, an element of bias is likely to creep in while estimating market value because market values are subject to high fluctuations. This method also suffers from its backward looking orientation in its assumption that the company can raise future capital at past or present finance costs. In spite of these dangers, market value is widely used to measure the cost of capital.

A better estimate of the true weighted average cost of capital is obtained by taking the incremental after tax costs of individual components weighted according to the company's long term target capital structure. Thus the overall cost of capital so determined provides the key to the inter dependent relationship between future investment and finance programmes.

The Problem of Cost of Capital in Small Units:

The capital structure of a typical small firm comprises of contributions from proprietors, retained profits and borrowings from financial institutions like Banks, State Financial Corporations, and private borrowings. As in the case of large firms each component of capital has a cost, but it goes difficult to ascertain the cost of capital as small firms are subject to many problems. Firstly, small firms suffer from inadequate finance and credit facilities largely.

Secondly, they do not have easy access to the capital market as they are mostly organised either on proprietorship or partnership basis. Thirdly, loans to smaller firms are typically smaller than loans to larger firms, and since there are certain fixed costs for servicing loan smaller firms must necessarily pay higher rates to cover such fixed costs.
Fourthly, they enjoy less amounts of tax relief, explained elsewhere in the chapter in detail.

Lastly, as small firms are highly personal in nature, it is difficult to ascertain the market value of the firm. Moreover, they are subject to higher rate of risk.

Cost of Equity in Small Firms:

Formally speaking, the cost of equity in a small firm is equivalent to the opportunity cost which the owners/managers have foregone. But, the argument is that the rate of earnings should be higher for smaller firms not only because they are more risky but also because owner/managers of these firms have less liquidity. This argument stems from the fact that it is difficult to liquidate one's investment in small firms. Small firms are highly personal in nature and as such, the rate of return is co-extensive with the expectations of owners/managers which once again depends upon capacity to bear risk, etc. Quite likely, at times the manager may be satisfied with even smaller return since he has satisfaction of control of operations and the advantage of working for himself. Thus, a rational investor would prefer lower return, less risk and moderate liquidity.
It is therefore probable that the cost of equity capital is lower for smaller firms. In other words, the capital contributed by the owners of smaller firms may have relatively low cost.

Determination of cost of equity is thus a difficult problem. In the survey conducted by this researcher, it was found that a majority of owners/managers did not know the concept of cost of capital. However, a crude idea of cost in terms of interest rate on bank deposits with an addition of 10 to 12 per cent towards risk premium was expected by these owners/managers. Therefore, ascertaining cost of equity is itself a problem in small units.

Cost of Debt:

Debt capital or borrowed capital constitutes another important component in the capital structure of a small firm. In large corporate sector units, this capital comes from issue of debenture bonds, public deposits and also from financial institutions. Almost all financial experts advocate that funds raised through debt are cheaper than equity because of tax shield. In other words, since interest paid on debt is a
deductible expenditure, the payment thereof ultimately goes to reduce the tax burden. Thus, in large firms one can improve the rate of return on equity by inducting a certain amount of debt which in financial terminology is called 'leverage'. The position would be clear from the following illustration.

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Firm 'A'</th>
<th>Firm 'B'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
<td>10,00,000</td>
<td>20,00,000</td>
</tr>
<tr>
<td>Borrowed Funds (18%)</td>
<td>10,00,000</td>
<td>—</td>
</tr>
<tr>
<td>Total Funds</td>
<td>20,00,000</td>
<td>20,00,000</td>
</tr>
<tr>
<td>Profit Before Interest and Tax</td>
<td>8,00,000</td>
<td>8,00,000</td>
</tr>
<tr>
<td>(-) Interest</td>
<td>1,80,000</td>
<td>—</td>
</tr>
<tr>
<td>Profit before tax</td>
<td>6,20,000</td>
<td>8,00,000</td>
</tr>
<tr>
<td>(-) Tax at 50%</td>
<td>3,10,000</td>
<td>4,00,000</td>
</tr>
<tr>
<td>Return on Equity</td>
<td>31%</td>
<td>20%</td>
</tr>
</tbody>
</table>

The illustration explains that the tax liability of Firm 'A' (with borrowed funds) is less than the tax obligation of Firm 'B' (without borrowed funds). It is so because of the operation of tax shield. Tax shield benefit in monetary
terms goes in direct proportion to the marginal rate of tax in which the tax payer has been placed. In addition, the illustration echoes that other things remaining the same, a firm depending on borrowings can always manage to improve the return on equity.

However, in the context of smaller firm this truth does not hold good. Leverage helps only those firms which pay income-tax. An entrepreneur engaged in small industry placed outside the tax net will not be in a position to enjoy the tax shield and consequently the borrowed funds will certainly prove costlier to him than his own funds. Even assuming that tax is paid the tax shield will depend on the marginal rate of tax in which the tax payer is placed.

The illustration below makes it abundantly explicit that borrowed funds are the costliest for firm 'B' and cheapest for Firm 'C' which happens to be a joint stock company. This is because of the differential marginal rates of income-tax applicable to the three units in our sample. Thus the tax shield moves in direct proportion to marginal rate of tax and consequently makes the borrowed funds cheaper. In other words

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Firma 'A' Proprietary</th>
<th>Firma 'B' Partnership (Registered)</th>
<th>Firma 'C' Company (Widely held)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity Funds</td>
<td>5,00,000</td>
<td>5,00,000</td>
<td>5,00,000</td>
</tr>
<tr>
<td>Borrowed Funds Long term at 18%</td>
<td>1,00,000</td>
<td>1,00,000</td>
<td>1,00,000</td>
</tr>
<tr>
<td>Total Funds</td>
<td>6,00,000</td>
<td>6,00,000</td>
<td>6,00,000</td>
</tr>
<tr>
<td>Profit Before Interest and Tax</td>
<td>1,18,000</td>
<td>1,18,000</td>
<td>1,18,000</td>
</tr>
<tr>
<td>(-) Interest on Borrowed Funds</td>
<td>18,000</td>
<td>18,000</td>
<td>18,000</td>
</tr>
<tr>
<td>Profit Before Tax</td>
<td>1,00,000</td>
<td>1,00,000</td>
<td>1,00,000</td>
</tr>
<tr>
<td>Tax Rate</td>
<td>40%</td>
<td>15%</td>
<td>55%</td>
</tr>
<tr>
<td>Effective Cost of Borrowed Funds</td>
<td>10.8%</td>
<td>15.3%</td>
<td>8.1%</td>
</tr>
</tbody>
</table>

\[ C_d = r (1-t) \]

- **\( C_d \)** = Cost of Debt
- **\( r \)** = Rate of Borrowed Funds
- **\( t \)** = Tax Rate.

**Notes:**
1. Individuals in the income bracket of Rs. 50,000 to 1,00,000 pay income tax at the marginal rate of 40%.
2. Assumed there are 5 partners in the registered firm 'B' which pays income tax at the marginal rate of 15%.
3. These rates are applicable for the assessment year 1985-86.
a person paying tax at the highest rate will be able to borrow funds at cheapest effective rates.

In our study, it was found that proprietary and partnership firms have raised loans from commercial banks and state financial corporations. The interest rates however varied from 13 per cent to 15 per cent in both the institutions. Thus in the light of marginal rate of tax the cost of debt capital is invariably high to small units, as a result they frequently suffer from cash flow problems. Unless this aspect is taken note of we are afraid the small units are bound to suffer financially pushing themselves into the arena of sickness.
The study of capital structure of any firm, big or small is of utmost importance, because it determines future profitability and to some extent liquidity also. So it is in this direction that a Finance Manager strives hard to have an effective blend of equity and debt in the capital structure. A best financing mix is technically known as optimum capital structure which minimises the overall cost of capital and maximises the market value of the firm. However, a study of capital structure in the context of small scale firms revealed the following:

A comparative study of agro based and non-agro based groups in respect of capital structure showed that of the total capital employed, equity constituted 64 per cent, including reserves of 32 per cent and long term borrowings about 36 per cent in case of agro based units. On the other hand the average equity contribution accounted for 61 per cent including reserves 6 per cent and long term borrowings accounted to 39 per cent of the total capital employed in non-agro based groups.

An interesting revelation under inter-industry comparison in respective groups is that capital in Oil Mills and Saw
Mills among agro based group to the extent of 90 per cent and in plastic units among non-agro based to the extent of 70 per cent has come from proprietary funds.

A size wise analysis showed that on an average 80 per cent of total capital has come from equity and 20 per cent from long term borrowings in Group I whereas in high investment groups, namely, Group V the respective contributions are 57 per cent and 43 per cent of total capital employed. Thus smallest among small units have depended more on self re finance for additional capital requirements rather than other groups.

Term loan component has shown a declining trend in the capital structure. In agro based units the percentage of term loans to total capital employed declined from 44.08 per cent in 1980-81 to 29.80 per cent in 1984-85 and from 45.42 per cent in 1980-81 to 33.51 per cent in 1984-85 in non-agro based groups.

Due to poor financial base, units in Groups I and II have borrowed less funds. Besides, fear of control by lending institutions, lack of collateral security to offer, a plethora of documents required to be produced to obtain loan etc. are some of the reasons which have disheartened small units in raising term finance.
All the units under both agro based groups and non-agro based groups have traded on very thick equity. The debt equity ratio of all units were nowhere near the accepted norm of 4:1. The average ratio remained as low as 0.56:1 in agro based group and 0.42:1 in non-agro based group. Saw Mills have recorded a negligible ratio of 0.06:1 among all the industry groups.

The average debt equity ratio in respect of groups classified on investment basis revealed that the ratio recorded a progressive trend. In other words, as investment increased the ratio of debt to equity also showed an increase. No group touched the ratio of even 1:1. Hence there is a large scope for infusion of external funds in the financial structure of the units under study provided debt is made cheaper through reduced interest rates.