CHAPTER V

Financial Strength
Ratio Analysis

Part - A

(a) Short Term Financial Strength:

1. Current Ratio
2. Quick Ratio

Part - B

(b) Long Term Financial Strength:

1. Debt Equity Ratio.
2. Total Liabilities to Net Worth Ratio.
3. Net Worth to Total Assets Ratio.
In this chapter we are going to assess the financial performance of the five cement companies selected under the present study. Also we will make an appraisal to the financial structure of these companies with a view to evaluate its capability to generate funds needed for the undertaking of desired expansion. Thus the financial analysis will determine the financial characteristics of these five cement companies from the accounting data presented in the balance sheets of the concerned companies.

FINANCIAL STRENGTH:

The term "Financial Strength" has reference to the ability of a business:

(1) To meet the claims of creditors not only under current economic and business conditions, but also under unfavourable situations that may occur in the future.

(2) To take advantage of business dealings or expansion which require presently owned resources, additional funds, obtained through the sale of long term debt obligations and capital stock, or a favourable credit rating.

(3) To continue interest and dividend payments without interruption.
While examining the financial strength of any company we have to take the help of financial ratios, as it is a powerful tool for this regard. In financial analysis, a ratio is used as an index or yardstick for evaluating the financial position and performance of a firm.  

The several financial ratios, calculated from the accounting data, can be grouped in various classes according to the financial activity or function to be evaluated. The most common and traditional classification of ratios, classified them into following four important categories: liquidity ratios, leverage ratios, activity ratios, and profitability ratios.  

There are two aspects of the financial strength:

A) Short term financial strength and
B) Long term financial strength.

A) The short-term financial strength:

The ratios are used to adjudge the ability of the firm to meet short-term obligations. Also from these type of ratios, much insight can be obtained into the present cash solvency of the firm and the firm ability to remain solvent in the event of adversities. 

So the short term financial strength will be covered by the liquidity ratios.
Two ratios here are commonly used they are:

(1) Current ratio and
(2) Quick ratio.

The basic point underlying the computation of these two ratios, is to judge the capability of the industry to meet its current obligations with margin of safety i.e., after making allowance for a possible shrinkage in the value of current assets, such as inventories and receivables. 5

(1) CURRENT RATIO:

This ratio is the most commonly used of all balance sheet ratios. It is not only a measure of solvency but it is an index of the working capital availability to the enterprises. 6 A ratio of 2:1 is considered satisfactory for industrial companies. It means that even if the value of current assets were to shrink to one and half, the creditors would receive payments in full. 7

The ratio 2:1 is a rule of the thumb. A satisfactory current ratio, however, varies with the line of business in general, the greater the liquidity of the current assets, the smaller is the margin needed above current liabilities. Some successful companies operate efficiently on current ratio of only 1:1 8
A low ratio is an indicator that the company may not be able to pay its future bills in time, a high ratio on the contrary may indicate an excessive amount of current assets and may imply a failure to utilise the resources properly. A good current ratio may mean a good umbrella for the creditors against rainy days, but due to the management it reflects a bad financial planning, presence of idle assets or over capitalisation.  

This ratio is calculated as follows: -

\[
\text{Current Ratio} = \frac{\text{Total Current Assets}}{\text{Total Current Liabilities}} \times 100
\]

The ratio is calculated in times but here for the clear understanding point of view, it is multiplied by 100.  

Now we have to study the current ratios of these cement companies:

1. Rassi:

The table no. (5.1) indicates that the current ratio of Rassi has varied from 102 percent in 1990 to 220 percent in 1992. The company had registered higher current ratios than the industry average by four years only. The coefficient of standard deviation of current assets and current liabilities come to 0.43 and 0.43 respectively. It shows the variation in both the series.
Table No. (5.1)

The Statement of Current Ratios
from 1983 to 1993

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Year</th>
<th>Rassi</th>
<th>Deccan</th>
<th>Kakatiya</th>
<th>NCL</th>
<th>Sagar</th>
<th>Industry Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1983</td>
<td>162</td>
<td>45</td>
<td>53</td>
<td>-</td>
<td>-</td>
<td>87</td>
</tr>
<tr>
<td>2.</td>
<td>1984</td>
<td>156</td>
<td>221</td>
<td>178</td>
<td>84</td>
<td>-</td>
<td>160</td>
</tr>
<tr>
<td>3.</td>
<td>1985</td>
<td>186</td>
<td>268</td>
<td>252</td>
<td>125</td>
<td>124</td>
<td>191</td>
</tr>
<tr>
<td>4.</td>
<td>1986</td>
<td>141</td>
<td>215</td>
<td>261</td>
<td>160</td>
<td>243</td>
<td>204</td>
</tr>
<tr>
<td>5.</td>
<td>1987</td>
<td>145</td>
<td>234</td>
<td>314</td>
<td>103</td>
<td>277</td>
<td>215</td>
</tr>
<tr>
<td>6.</td>
<td>1988</td>
<td>150</td>
<td>69</td>
<td>353</td>
<td>-</td>
<td>-</td>
<td>191</td>
</tr>
<tr>
<td>7.</td>
<td>1989</td>
<td>-</td>
<td>156</td>
<td>403</td>
<td>101</td>
<td>211</td>
<td>218</td>
</tr>
<tr>
<td>8.</td>
<td>1990</td>
<td>102</td>
<td>-</td>
<td>179</td>
<td>97</td>
<td>146</td>
<td>131</td>
</tr>
<tr>
<td>9.</td>
<td>1991</td>
<td>216</td>
<td>144</td>
<td>170</td>
<td>91</td>
<td>132</td>
<td>151</td>
</tr>
<tr>
<td>10.</td>
<td>1992</td>
<td>220</td>
<td>142</td>
<td>119</td>
<td>114</td>
<td>112</td>
<td>141</td>
</tr>
<tr>
<td>11.</td>
<td>1993</td>
<td>212</td>
<td>226</td>
<td>220</td>
<td>81</td>
<td>178</td>
<td>183</td>
</tr>
</tbody>
</table>

Average: 169  172  227  106  178  170

1) Standard deviation:

Current Assets: - 59446169.78 20165295.43 200882083.70 60329786.18 19979034.68
Current liabilities: 31335748.71 11525557.76 122166224.27 81124179.31 14894779.19

2) Coefficient SD

Current Assets: 0.75 0.57 0.43 0.68 0.39
Current Liabilities: 0.63 0.64 0.43 0.84 0.48

3) Coefficient of correlation:

CA/CL 0.86 0.80 0.73 0.94 0.79
The coefficient of correlation between the current assets and current liabilities was 0.73 which it was the lowest as compared to the remaining years. This lower degree of correlation indicates that the company did not follow a fairly uniform policy to finance the current assets and current liabilities.

2. Deccan:

The current ratio of Deccan has varied from 45 percent in 1983 to 268 percent in 1985. The company had registered four ratios less than the industry average as they were registered in 1983, 1988, 1989, and 1991. The coefficient of standard deviation for current assets and current liabilities were 0.75 and 0.63 respectively, which shows more fluctuations in current assets and current liabilities.

The coefficient of correlation between current assets and current liabilities was 0.86. This positive correlation indicates that Deccan had observed a uniform policy to finance the current assets and current liabilities.

3. Kakatiya:

The current ratio of this company varied from 53 percent in 1983 to 403 percent in 1989 during the period study. The ratio was always higher than the industry average except the years 1983 and 1992. The ratio had registered an upward trend during the first 7 years of the study and it has reached the highest level in 1989 (403%). This indicates sound short
term financial structure of the company. During the period 1990-1992, the ratio registered a sharp downward trend as the ratio declined to 199 percent in 1992. In 1993, the ratio increased to 220 percent. The highest ratio recorded by the company in 1988 (353%) and in 1989 (403%). The current liabilities stood for just 50 percent of the average, sometimes less for the remaining years. The coefficient of standard deviation of the current assets and current liabilities come to 0.57 and 0.64 respectively. This indicates more variation in current liabilities than in the current assets. The positive correlation 0.80 shows that the company has been following uniform policy to finance current assets and current liabilities during the study period.

4. NCL :-

The ratio of this company varied from 81 percent in 1993 to 160 percent in 1986. It was always less than the industry average. This indicates a weak financial structure. The coefficient of standard deviation for current assets and current liabilities were 0.68 and 0.84 respectively. This indicates higher variation in current liabilities. The coefficient of correlation between current assets and current liabilities was 0.94. This high degree of positive correlation suggests the unit had followed a uniform policy to finance current assets and current liabilities. The current ratio was always less than 200 percent which indicates efficient utilisation of current assets from share holders point of view, but weak short term financial structure from the creditors point of view.
5. Sagar:

The current ratio of Sagar varied from 112 percent in 1992 to 277 percent in 1987, where the industry average ratio was in between 87 percent to 218 percent. During 1985-1987, the ratio was going upwards as it has reached its highest level when it was 227 percent. But during 1989-1992, the ratio declined from 211 percent to 112 percent.

In 1993, the ratio again went up to 178 percent. The coefficient standard deviation of current assets and current liabilities were 0.39 and 0.48 respectively. Here the current liabilities have registered a higher variation as compared to current assets. The company positive correlation i.e. +0.79 indicates, that the company had observed a uniform policy to finance current assets and current liabilities.

The above discussion reveals the following features:

1. The current ratio registered at the first year of commencing the commercial production was very low.

2. The highest current ratio was registered by Kakatiya (227%) and the lowest was registered by NCL (106%).

3. The coefficient of standard deviation for current assets and current liabilities shows that more variations in current liabilities than that of current assets.

4. The high degree of positive correlation coefficient shows that short term liabilities are used for the creation of current assets.
5. The high degree of positive correlation indicates that cement companies depend mainly on short term borrowings for financing their working capital needs.

(2) ACID-TEST RATIO:

This ratio is commonly known as quick, or acid-test or liquid ratio. This ratio is another widely used device for adjudging the short term debt repaying ability of the business in the near future. It is more precise measure of liquidity than the current ratio because inventories which are the least liquid of current assets are excluded from the ratio. The acid-test is so named because it shows the ability of the industry to pay its obligation without relying on the sales and collection of its inventories. ¹¹

While computing the acid-test ratio, it is necessary to arrange the current assets into two groups:

1) Cash and the quick or relatively liquid assets, such as receivables and temporary investment which can be either immediately available or will be available soon for the payment of current liabilities.

2) The less liquid assets, such as inventories and prepaid expenses which normally requires some time for their realisation into cash. Therefore, only the total of the quick assets are divided by the total current liabilities to obtain the acid test ratio. ¹²

Here, the inventories are not included in quick assets because of the time required to sell goods and to convert the raw materials into finished goods.
A quick assets ratio of 1 to 1 or 100 to 100, indicates that the company has good short term financial strength and that it can pay all its current liabilities at a short notice. This indicates that the company financial position is sound. But it should be remembered that all book debts may not be liquid, and cash may be immediately needed to pay operating expenses.

The acid test ratio is calculated as follows:

\[
\text{Acid Test Ratio} = \frac{\text{Current Assets - Inventories and prepaid expenses}}{\text{Current Liabilities}}
\]

1. Rassi:

The table No. (5.2) of acid-test ratio indicates that during the period of 11 years, the company was able to keep its quick ratio above the industry average for 4 years. In the remaining seven years the ratios were lower than the industry average. The fluctuation were between 80 % to 161 %.

This range was very wide, which may indicate that the management was not properly handling the current assets and current liabilities properly. Overall the company did show as sound liquidity position as it was 1:1, and some times it stood more than that.
Table No.(5.2)
The Statement of the Acid-Test Ratios
from 1983 to 1993

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Year</th>
<th>COMPANIES</th>
<th>Current Liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Rassi</td>
<td>Deccan</td>
</tr>
<tr>
<td>1.</td>
<td>1983</td>
<td>139</td>
<td>32</td>
</tr>
<tr>
<td>2.</td>
<td>1984</td>
<td>119</td>
<td>160</td>
</tr>
<tr>
<td>3.</td>
<td>1985</td>
<td>143</td>
<td>182</td>
</tr>
<tr>
<td>4.</td>
<td>1986</td>
<td>88</td>
<td>152</td>
</tr>
<tr>
<td>5.</td>
<td>1987</td>
<td>89</td>
<td>180</td>
</tr>
<tr>
<td>6.</td>
<td>1988</td>
<td>110</td>
<td>53</td>
</tr>
<tr>
<td>7.</td>
<td>1989</td>
<td>-</td>
<td>128</td>
</tr>
<tr>
<td>8.</td>
<td>1990</td>
<td>80</td>
<td>-</td>
</tr>
<tr>
<td>9.</td>
<td>1991</td>
<td>161</td>
<td>120</td>
</tr>
<tr>
<td>10.</td>
<td>1992</td>
<td>149</td>
<td>120</td>
</tr>
<tr>
<td>11.</td>
<td>1993</td>
<td>138</td>
<td>193</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Average : 122 132 136 76 133 120

2. Deccan:

The table No.(5.2) of acid test ratio indicates that the ratio for Deccan company was varied from 32 percent in 1983 to 193 percent in 1993. During the three years 1983 an1988 and 1989, the ratio was less than the industry average.
During the rest of the years, it was higher. The best position was in 1993 as the company ratio was 193 percent and the average of the industry stood at 120 percent. It shows that the company had reached its ideal solvency position.

3. Kakatiya:

The ratio for Kakatiya varied from 33 percent in 1983 to 249 percent in 1989. During the first three years the ratio remained less than the industry average. But during these years the ratio was 130 percent in 1984 and 110 percent in 1985, which theoretically indicates that the short term financial strength was sound. During the next four years the ratio jumped from 110 percent in 1985 to 249 percent in 1989, which was the highest recorded by the company during the study. In 1990, the ratio came down to 110 percent.

During the years 1991 and 1992 the ratio was 95 percent and 75 percent respectively. The two years' ratios were less than the industry average. Again in 1993, the ratio recorded was 113 percent, which indicates a sound short term financial position, but still it was weak because it was less than the industry average.

4. NCL:

The quick ratio for this company was varied from 46 percent to 128 percent. The ratio has been miserably low as compared to industry average. The company could not record any single ratio above the industry average. Also the company
records two ratios 48 percent and 36 percent in 1984 and 1993 respectively. These results indicate a very weak current financial position compared to other companies included in the study. The quick ratios recorded by NCL indicate the weak short term financial position of the company when it is compared to other companies. This position shows that the management could not manage the current assets properly.

5. Sagar:

During the period of 8 years under the present study, the company's quick ratio varied from 79 percent in 1991 and 225 percent in 1987. During the first 3 years the ratio was improving, as it was 92 percent in 1985 and it had reached to 225 percent in 1987. But later on it was declined to the ratio to reach 122 percent in 1993. In general the ratios recorded by the company indicates that the short term financial position was good as it was 1:1 during the period of study. Also the average recorded by the company shows that its average was the second highest average recorded during the study period which it was 133 percent and only Kakatiya records above this ratio.

The above discussion reveals the following features:

1. The quick ratio varied from 68 percent in 1983 to 155 percent in 1989.

2. The highest quick ratio registered by Kakatiya (136 %) and the lowest ratio registered by NCL (75%).
3. Quick assets constitutes about 110 percent of current liabilities which indicates the ability of the industry to meet its commitments in time which means a sound current financial position.

B) LONG TERM FINANCIAL STRENGTH:

(1) Debt equity ratio:

For analysing the long term liquidity and composition of capital structure, normally debt equity ratio is employed as a principal tool. The term debt signifies total indebtedness of the industries as consisting of its long term obligations. Equity refers to own funds as represented by net worth and dividend reserves. Net worth means total preference share capital, equity share capital, and share holders reserves. The fundamental object of this ratio is to measure the relative interest of owners and creditors in the industry. From the creditors point of view it measures the extent to which their interest is covered by own funds, the lower is the ratio and greater will be the protection to the creditors against possible losses in the event of liquidation. An ideal norm of the ratio is 100 percent, where the long term debt does not exceed the own funds of the business.

The ratio depends on the nature of business. In a capital intensive industry, as the case in cement industry,
the ratio might be 300 percent to 400 percent. The debt equity is calculated as follows:

Long Term Debts
Debt Equity Ratio = ------------------- X 100
Net Worth

1. Rassi:

The table No.(5.3) shows that the debt equity ratio of Rassi varied from 67 percent in 1984 to 698 percent in 1990, where as the industry average was in between 74 percent to 252 percent over a period of 11 years under the study. During the early six years from 1983 to 1988 the ratio was in between 67 percent to 287 percent. This ratio was a reasonable ratio for capital intensive industry. But from 1990 to 1993, it had shown a marked increase as the ratio was in between 639 percent to 698 percent. This situation indicates heavy dependence of the company on the long term borrowings.

The negative correlation between debts and equity is (-)0.30. The coefficient of standard deviation for debt was 0.53 while for equity it was 0.36. This suggests that the variation in debts has been more than in the equity. The net worth value decreased from Rs. 1608.41 lakhs in 1983 to Rs. 1180.33 lakhs in 1990. It was owing to the heavy losses suffered by the company. But on the other hand, long term liabilities increased from Rs. 1668.07 lakhs in 1983 to Rs. 8243.17 lakhs in 1990.
Table No.(5.3)
The Statement of the Debt Equity Ratios
from 1983 to 1993

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Year</th>
<th>Companies</th>
<th>Industry Average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Rassi Deccan Kakatiya NCL Sagar</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>1983</td>
<td>104 172   175 - -</td>
<td>150</td>
</tr>
<tr>
<td>2.</td>
<td>1984</td>
<td>67  97    69  227 -</td>
<td>115</td>
</tr>
<tr>
<td>3.</td>
<td>1985</td>
<td>153 49   26  115 154</td>
<td>99</td>
</tr>
<tr>
<td>4.</td>
<td>1986</td>
<td>152 34   3  76 107</td>
<td>74</td>
</tr>
<tr>
<td>5.</td>
<td>1987</td>
<td>152 60   0  64 102</td>
<td>76</td>
</tr>
<tr>
<td>6.</td>
<td>1988</td>
<td>287 38   0 - -</td>
<td>108</td>
</tr>
<tr>
<td>7.</td>
<td>1989</td>
<td>- 98    0  134 122</td>
<td>89</td>
</tr>
<tr>
<td>8.</td>
<td>1990</td>
<td>698 -    29  184 98</td>
<td>252</td>
</tr>
<tr>
<td>9.</td>
<td>1991</td>
<td>672 121  141 219 63</td>
<td>243</td>
</tr>
<tr>
<td>10.</td>
<td>1992</td>
<td>639 103  141 265 41</td>
<td>238</td>
</tr>
<tr>
<td>11.</td>
<td>1993</td>
<td>683 177  86 179 65</td>
<td>238</td>
</tr>
</tbody>
</table>

A) Coefficient of standard deviation:

<table>
<thead>
<tr>
<th></th>
<th>Long Term Debts</th>
<th>Net Worth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.72 1.19 0.53 0.92</td>
<td>0.39 0.45 0.36 0.68</td>
</tr>
</tbody>
</table>

B) Coefficient Correlation:

<table>
<thead>
<tr>
<th></th>
<th>Debt/ Equity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.71 0.67 -0.30</td>
<td>0.95 0.78</td>
</tr>
</tbody>
</table>
The long term position has, therefore, deteriorated and further. The negative correlation between debts and equity, decreasing net worth shows that the factory relied more on borrowed funds for financing its manufacturing activities. The relative equity position further is aggravated by the accumulated losses in 1988 and 1990. It is observed from the above discussion that the company long term financial structure was weak.

2. Deccan:

The debt equity ratio of this company varied from 34 percent in (1986) to 177 percent in (1993). See Table No.(5.3). This clearly indicates that the unit has used long term loan to the minimum if compared to the industry average. In the year 1983 the ratio was quite good i.e.172 percent. It was close to the standard norm i.e.200:100. But later on it had registered a declining trend and reached to a level of 34 percent in 1986. This indicates weak long term financial position of the company. After 1990 the company had tried to improve the position and in the year 1993 it reached to 177 percent. The positive correlation 0.71 suggests that the company had followed a uniform policy for raising funds through long term borrowings. The coefficient of standard deviation for debts was 0.72 and for equity 0.33, which indicates more variation in long term borrowings. During the period studied (1983-1993), the net worth value has been going up from Rs.223.44 lakhs to Rs.955.29 lakhs. But in
the year 1993 there was substantial increase in the borrowed funds as it has increased from Rs. 891.28 lakhs in (1992) to Rs.1687.41 lakhs in (1993).

3. Kakatiya :

During the early four years the ratio showed a declining trend as it was 175 percent in 1983 and declined to 3 percent in 1986. During the next three years the company did not use any long term debts. But during the year 1990, 1991 and 1992 the ratio showed increasing trend as it has reached to 141 percent. This high ratio was registered as the company used the long term debts for the modernization and expansion projects during that period. This indicates that Kakatiya has used long term loan to minimum as any company used in the study.

The positive correlation between debts and equity using 0.67 suggest that the company has followed a uniform policy for raising funds through long term borrowings. The coefficient of standard deviation for debt was 1.19 and for equity it was 0.45. It indicates a very high variation in long term borrowings.

The long term financial strength of this company has been very sound throughout the period of study.

4. NCL :

The debt equity ratio of this company varied from 64 percent in 1987 to 265 percent in 1992. The ratio registered a downward trend during the early four years as
the ratio was 227 percent in 1983 to 64 percent in 1987. But during the next 5 years the ratio showed downward trend as it had reached to 265 percent in 1992. This indicates more dependence on long term borrowed funds. However, it has decreased in 1993 to 179 percent and it was less than the industry average. This shows substantial increase in the net worth value.

The high degrees of positive correlation, being 0.95 suggests that the company had followed a uniform policy of raising the long term borrowings. The variation in debt was more as compared to equity, as the coefficient of standard deviation for debt and equity have been 0.92 and 0.68 respectively. It shows more reliance on long term borrowed funds.

5. Sagar:

The company showed declining trend during the period of study. As the debt equity ratio was 154 percent in 1985 and declined to 41 percent in 1992. During the period of 9 years, from 1985 to 1993, the ratio was less than the standard norm of 2.5:1, which indicates a sound long term financial structure of the company.

The high degree of positive correlation, being 0.78 suggest, that sagar had followed a well managed and uniform policy for raising funds through long term borrowings. The Coefficient of standard deviation for debt was 0.39 and for equity was 0.57. This suggests that the net worth has varied
more than long term debts. During the period (1985-1992), the net worth value has been going up from Rs.374.75 lakhs to Rs.753.60 lakhs. But in the year 1993, there was a sudden increase in the both series, as the net worth increased to Rs. 1834.04 lakhs. The reason for this sudden rise has been an increase in the share capital. In the case long term debts the sudden increase was registered as there was substantial increase in borrowed funds. It increased from Rs. 306.80 in (1992) to Rs. 1200.07 lakhs in (1993).

Generally the long term financial strength of this company has been sound throughout the period of study.

The above discussion indicates the following characteristics of the Companies included in the study:

1. Positive Correlation between debts and equity implies a sound financing policy, where Company finances its increasing capital need not only from borrowed funds, but also from its own matching contribution. NCL Company has the highest positive Coefficient correlation followed by Sagar, Deccan and Kakatiya.

2. The negative coefficient Correlation between debts and equity in case of Rassi Company shows that the company had relied more on borrowed funds for financing its increasing capital needs.

3. It was noticed that the debt equity ratio during the initial stages for all companies except Rassi was unsound.
4. The best results were registered by Kakatiya as its debt constituted a maximum of 175 percent and a minimum of 3 percent. On the other hand Rassi registered the worst as its debt constituted a maximum of 698 percent and its minimum 67 percent.

5. Net worth for the companies with exception to Rassi is continuously increasing.

(2) Net Worth to Total Assets Ratio:

The ratio of net worth to total assets shows the percentage of the total investment in assets that has been financed by the shareholders. This ratio often called as proprietary ratio or share holders equity ratio. 17 This ratio is calculated as the net worth divided by total assets.

\[
\text{Net Worth to Total Assets} = \frac{\text{Net Worth}}{\text{Total Assets}}
\]

This ratio measures the importance of share holders equity in relation to borrowed funds and indicates the margin of safety for creditors. The higher ratio and closer it is to 100 percent indicates a strong financial position of the firm. It is also an indication of more satisfactory & sound financial structure of the company from the creditors point of view. On the other hand, low ratio signifies a decrease in the amount of share holders funds in relation to the amount of debt, including greater dependence on creditors for working funds 18.
Therefore, the ratio is a test of credit strength. The ratio reflects the balance between internal and external equities and it is important test of capitalisation. Higher the ratio, lower is the earnings per share and vice versa.

From the creditors point of view, the larger the percentage of assets that is supplied by share holders, the better and satisfactory is the financial structure of the business, since owners equity represents a margin of safety for creditors. In other words, owners equity is a 'cushion' that first absorbs losses. Periods of business in activity which are accompanied by financial stress and greatly reduced earnings should prove less burdensome to a business that has good proprietary ratio. This is to be considered against a company that has stable profit. The less "conservative" the financial structure is likely to be, especially in period of poor business, because of fixed interest obligations and the necessity of paying maturing debts. In periods of low business activity the business may not earn its fixed interest charges or may not be able to meet maturing obligations. When the stock holders equity is quite small in comparison with creditors claim a substantial decline in sales, accompanied by large operating loss, might reduce owners equity to a dangerously low level and require a financial reorganisation. Owners equity may be eliminated altogether and heavy losses are inflicted upon the creditors.
The average of net worth to total assets ratio of the five companies varied from 29 percent in 1983 to 53 percent in 1986. This may indicate that share holders equity in relation to borrowed funds was low throughout the study period. In fact the ratio should be higher and it must be closed to 100 percent, but almost it was less than 50 percent, which shows that all the cement companies which are included in the study were more dependent on borrowed funds. The low equity not only represents an unsafe position for creditors but also indicates a weak financial structure of the company.

1. Rassi:

The net worth to total assets ratio of this company varied from 8 percent in (1990) to 41 percent in (1984). The ratios registered by the company throughout the years was less than the industry average except in the first two years 1983 and 1984. This indicates greater dependence on external equities. It is un-satisfactory situation from the creditors point of view. The share capital was not changed during the first five years (1983-1987) as it was Rs.559.00 lakhs.

During (1988-1990) the ratio declined to 19 percent and 8 percent respectively as the reserves and surplus went down from Rs.2087.43 lakhs in 1988 and company has incurred high losses during 1990. The total average of 10 years of the company was 23 percent. This indicates that the long term financial structure of the company was very weak compared to other companies financial structure.
Table No.(5.4)
The Statement of Net worth to total Assets
from 1983 to 1993

<table>
<thead>
<tr>
<th>Sr. Year No.</th>
<th>COMPANIES</th>
<th>Net worth X 100</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rassl Deccan Kakatiya NCL Sagar</td>
<td>Total Assets</td>
</tr>
<tr>
<td>1. 1983</td>
<td>33 24 30 - -</td>
<td>29</td>
</tr>
<tr>
<td>2. 1984</td>
<td>41 42 52 24 -</td>
<td>40</td>
</tr>
<tr>
<td>3. 1985</td>
<td>31 56 70 36 32</td>
<td>45</td>
</tr>
<tr>
<td>4. 1986</td>
<td>31 60 84 46 42</td>
<td>53</td>
</tr>
<tr>
<td>5. 1987</td>
<td>33 52 87 41 43</td>
<td>51</td>
</tr>
<tr>
<td>6. 1988</td>
<td>19 46 88 - -</td>
<td>51</td>
</tr>
<tr>
<td>7. 1989</td>
<td>- 33 89 29 39</td>
<td>48</td>
</tr>
<tr>
<td>8. 1990</td>
<td>8 - 62 19 40</td>
<td>32</td>
</tr>
<tr>
<td>9. 1991</td>
<td>10 31 37 25 48</td>
<td>30</td>
</tr>
<tr>
<td>10. 1992</td>
<td>11 33 35 23 46</td>
<td>50</td>
</tr>
<tr>
<td>11. 1993</td>
<td>10 27 47 24 51</td>
<td>32</td>
</tr>
</tbody>
</table>

Average: 23 40 62 30 43 40

2. Deccan:

The table No.(5.4) reveals that the net worth to total assets ratio of the company varied from 24 percent in (1983) to 60 percent in (1986). It is observed that during early 4 years i.e. from 1983 to 1986 Deccan had registered increasing trend in the net worth to total assets ratio that was from 24 percent to 60 percent but later on during the
next 6 years it had registered a continuous declining trend. And in 1993 it reached to bare 27 percent. This indicates more dependence on borrowed funds for its working capital. If we compare the company's average with the industry average it is observed that the company had registered 4 ratios less than the industry average during the ten years studied.

3. Kakatiya:

During the period studied the ratio of Kakatiya varied from 30 percent in (1983) to 89 percent in (1989). The ratio here was always higher than the industry average. The trend has been upward during the first seven years. It means more self reliance on its working capital. During (1990-1992) the company has registered a downward trend, as the ratio declined to 35 percent in 1992, this was due to the declining of profit. In 1993, the ratio increased to 47 percent as the share capital increased from Rs. 179.70 lakhs in 1992 to Rs. 274.39 lakhs in 1993. Kakatiya registered the best results in the study as its average for eleven years was the highest in the study and it was 62 percent.

4. NCL:

The ratio of this company varied from 19 percent in (1990) to 45 percent in (1986). It was less than the industry average throughout the period of study. This indicates heavily dependence on external equities. It is unsatisfactory situation from the creditors point of view. The ratio was going up during the first three years as it was 24 percent in 1984 and it has reached to 46 percent in 1986.
This was because the share capital increased from Rs. 168.84 lakhs in 1984 to Rs. 184.28 lakhs in 1986. Also the reserves and surplus increased during this period from Rs. 32.71 lakhs in 1984 to Rs. 304.98 lakhs in 1986. For the next four years the ratio registered a downward trend as it has reached to the lowest in 1990 (19%). This was due to the low net profit transferred to Balance sheet as it was Rs 0.50 lakh only. During the first three years the ratio reflects comparatively better financial strength and better position in working capital management. But during the remaining years the ratio shows more dependence on borrowed funds, for financing the working capital.

5. Sagar:

The present ratio of this company varied from 32 percent in (1985) to 51 percent in (1993). This situation was due to the increase in share capital as the company has started with capital of Rs. 284.89 lakhs in 1985 and it has reached Rs. 779.03 lakhs in 1993, with an increase in Reserves and Surplus of Rs. 89.87 lakhs in 1985 against Rs. 105.50 lakhs in 1993. The earlier three ratios registered by the company were less than the industry average. But the remaining five ratios were higher than the industry average. The average of the company for nine years was 43 percent. This average was high as the company had started its commercial production later in 1985. This indicates that the financial position of the company was going better and continued to grow up. And it shows a less dependence on borrowed funds for working capital.
The above discussion reveals the following features:

1. Kakatiya registered the highest average (62%), which indicates an improvement in the long term financial position.

2. Rassi registered the lowest ratio (23%) which indicates that the company dependence on long term debts more and that it is observed in 1990, when the company suffered a high accumulated losses.

(3) **Total liabilities to Net Worth Ratio:**

A part of the assets of a business is contributed by shareholders, the remaining part being contributed by others who are the creditors of the company. This ratio contrasts external with internal equities, reflecting the relative interest of the shareholders. The smaller the ratio, the higher is the interest of the shareholders as compared to that of the creditors and sounder is the financial structure. But that is not always business policies of the concern.

When the ratio exceeds 100, it would mean that creditors have much bigger stake in the business than the shareholders. In that event, the handicap of interest charges may become a critical burden. When liabilities are in excess of tangible net worth, the management is proportionately handicapped. When this heavy burden of interest can be improved by increasing the share capital or by retaining profits in the business. A declining ratio of total liabilities to net worth is, therefore, assign of increasing stability.
The ratio is calculated as follows:

\[
\text{Total Liabilities to Net Worth Ratio} = \frac{\text{Total Liabilities}}{\text{Net Worth}} \times 100
\]

1. Rassi:

The table no. (5.5) indicates that the total liabilities to net worth ratio of this company varied from 145 percent in 1984 to 1173 percent in 1990. The ratio of this company was always higher than the industry average except the years 1983 and 1984. It has also registered a fluctuating trend during the study period. This indicates that there has been no uniform policy in raising borrowed funds and heavy dependence on external equities.

The unduly high ratio reflects a weak financial structure, which keep the creditors to feel unsafe. The company suffered a heavy losses in 1988 and 1990. It has reached to Rs. 1816.00 lakhs which resulted the increase in total liabilities from Rs. 3251.19 lakhs in 1983 to Rs. 14386.00 lakhs in 1993, at the same time the net worth of the company declined from Rs. 1608.41 lakhs in 1983 to Rs. 1180.30 lakhs in 1990. This shows the increasing burden of interest payment during the period of study. The average of the company for 10 years was the highest in the study as it is compared with other companies and with the industry average. (See table (5.5)).
2. Deccan:

The total liabilities to net worth ratio of the company varied from 67 percent in 1986 to 310 percent in 1983. The ratio was less than the industry average, except in the years 1989 and 1993.

Table No.(5.5)
The Statement of Total Liabilities to Net Worth Ratios from 1983 to 1993

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Year</th>
<th>Rassi</th>
<th>Deccan</th>
<th>Kakatiya</th>
<th>NCL</th>
<th>Sagar</th>
<th>Industry Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1983</td>
<td>202</td>
<td>310</td>
<td>231</td>
<td>-</td>
<td>-</td>
<td>248</td>
</tr>
<tr>
<td>2.</td>
<td>1984</td>
<td>145</td>
<td>137</td>
<td>93</td>
<td>310</td>
<td>-</td>
<td>171</td>
</tr>
<tr>
<td>3.</td>
<td>1985</td>
<td>223</td>
<td>80</td>
<td>42</td>
<td>178</td>
<td>209</td>
<td>146</td>
</tr>
<tr>
<td>4.</td>
<td>1986</td>
<td>218</td>
<td>67</td>
<td>19</td>
<td>118</td>
<td>135</td>
<td>111</td>
</tr>
<tr>
<td>5.</td>
<td>1987</td>
<td>203</td>
<td>91</td>
<td>15</td>
<td>146</td>
<td>134</td>
<td>118</td>
</tr>
<tr>
<td>6.</td>
<td>1988</td>
<td>416</td>
<td>117</td>
<td>14</td>
<td>-</td>
<td>-</td>
<td>182</td>
</tr>
<tr>
<td>7.</td>
<td>1989</td>
<td>-</td>
<td>202</td>
<td>13</td>
<td>250</td>
<td>159</td>
<td>156</td>
</tr>
<tr>
<td>8.</td>
<td>1990</td>
<td>1173</td>
<td>-</td>
<td>62</td>
<td>430</td>
<td>148</td>
<td>453</td>
</tr>
<tr>
<td>9.</td>
<td>1991</td>
<td>868</td>
<td>222</td>
<td>170</td>
<td>303</td>
<td>111</td>
<td>335</td>
</tr>
<tr>
<td>10.</td>
<td>1992</td>
<td>840</td>
<td>204</td>
<td>182</td>
<td>339</td>
<td>115</td>
<td>336</td>
</tr>
<tr>
<td>11.</td>
<td>1993</td>
<td>914</td>
<td>276</td>
<td>112</td>
<td>313</td>
<td>95</td>
<td>342</td>
</tr>
</tbody>
</table>

Average: 521 171 87 262 138 236
This shows less dependence on borrowed funds. During the first five years the company has registered a downward trend, which explains a policy of repaying the debts. During the remaining years, it has registered an upward trend and reached to 176 percent in 1993. During these years, the company undertook modernisation and expansion project which enhanced the capacity of the company from 66000 MT in 1986 to 197800 MT in 1993. The total liabilities during this period were sharply increased from Rs. 396.85 lakhs in 1986 to Rs. 2635.69 lakhs in 1993. But in the case of net worth the increasing on its value was low as it was 595.71 lakhs in 1986 and it has increased to 955.29 lakhs in 1993 only.

This situation clearly shows the increasing burden of interest payment during the period of study.

3. Kakatiya :-

The ratio of this company has been always less than the industry average. The ratio shows downward trend during the first seven years. During the next three years the ratio showed a steady upward trend as it has increased from 13 percent in 1989 to 182 percent in 1992. This sharp rise was registered as the company enhanced its capacity from 66000 tonnes in 1989 to 198000 tonnes in 1992. It is observed that the management has successfully managed to raise its own reserves from Rs. 239.69 lakhs in 1983 to Rs. 1305.18 lakhs in 1993. It is also observed that during the study period the total liabilities were increased by 394 percent whereas the
net worth figure increased by 711 percent. The net worth was Rs. 419.46 lakhs in 1983 and increased to Rs. 1579.57 lakhs in 1993. The average registered by the company was 87 percent, this indicates that the management has been able to create more confidence, among the share holders as well as the creditors.

4. NCL:

The total liabilities to net worth ratio of this company varied from 148 percent in 1987 to 430 percent in 1990. The company had registered 6 ratios out of 9 more than the industry average. During the early three years the ratio showed declining trend as it was 310 percent in 1984 and declined to 118 percent in 1988. But, later on the company showed increasing trend during the next four years as the ratio reached to its highest level in 1990 as the ratio was 430 percent.

This was the result of the expansion scheme introduced by the company which enhanced the capacity from 66000 tonnes in 1986 to 107250 tonnes in 1990. By the end of 1990 the total liabilities were increased by 513 percent, and again increased by 996 percent 1993. At the same time, the increase in net worth was 370 percent in 1990, and increase in 1993 to 985 percent. This situation shows the increasing burden of interest payment of the company during the study period.
5. Sagar :-

The total liabilities to net worth ratio of this company varied from 95 percent in 1983 to 209 in 1985, whereas the industry average was in between 111 percent to 453 percent. The ratios registered by the company during the first five years from 1985 to 1989 were more than the industry average and during the next four years they were less than the industry average.

This shows that the position was improving as the ratio declined to its lowest level in 1993 to 95 percent. The management has successfully managed to raise its own share capital by 273 percent during this period and simultaneously they have raised their reserves by 1174 percent. It is also observed that during the period studied the total liabilities increased during the same period by 223 percent, whereas the net worth figure was increased by 532 percent. In 1985, it stood at Rs. 374.75 lakhs and increased by the end of 1993 to Rs. 1834.04 lakhs.

If the average of Sagar (136%) is compared with other companies and with the industry average, considering that the company started its commercial production in 1985, this indicates that the company has been able to create more confidence among the share holders and creditors.
(4) Net Fixed Assets to Net Worth Ratio:

Every solvent company has a certain amount of capital or net worth, the owners' equity in the business. This capital must be used to effective use to enable the concern to conduct its business and assure its survival and prosperity in the long run. This ratio measures the extent to which a company's invested capital or net worth is tied up in non-liquid, permanent, depreciable assets and indirectly it measures the amount of capital that remains for investment in other more fluid assets. A disproportionately high investment in fixed assets, increases the debt places a burden on the factory because it limits current assets and productive miscellaneous assets, increases the debt position, and may depress profit through heavy fixed costs. The ratio cannot be used to detect fixed assets over expansion because a high ratio may not mean relatively large fixed assets at all but only a small net worth relative to debt.

The investment in fixed assets involves Commitments of funds for longer periods into the future and usually are difficulty and costly to reverse, often they are in large investments.

Therefore, the management should be very cautious in deciding about the investment in fixed assets. This ratio indicates the percentage of fixed assets to the tangible
net worth. The ratio is calculated as follows: -

\[
\text{Net Fixed Assets} \\
\text{Fixed Assets to Net Worth Ratio} = \frac{\text{Net Fixed Assets}}{\text{Net Worth}} \times 100
\]

This ratio is an important tool for judging the margin of safety for long term creditors. It enables one to examine the uses of long term borrowed funds and the sources of financing the working capital. If this ratio stands 100 percent, this indicates that all the long term borrowed fund are being used as working capital in the business. If the ratio exceeds 100 percent the indication is that a part of the borrowed funds has been used for financing fixed assets and the remaining part is being used for financing the working capital. In case the ratio is less than 100 percent the indication is that, the working capital is financed by all long term borrowed funds plus the amount of own funds to the extent to which the percentage is less than 100.28

1. Rassi: -

The table no. (5.6) indicates that the ratio of this company verified from 123 percent in 1984 to 788 percent in 1990. The ratio was always higher than the industry average, except in 1983 and 1984.

The company could not achieve any single ratio less than 100, which indicates weak long term financial structure of the company. Because of this situation the company suffered heavy losses during the years 1988, 1990, and 1993.
Due to this losses the value of net worth decreased from Rs. 1608.41 lakhs in 1983 to Rs. 1180.33 lakhs in 1990. The increase in share capital during the period of study was Rs. 178.00 lakhs only whereas the long term liabilities increased from Rs. 1668.07 lakhs in 1983 to Rs. 8243.17 lakhs in 1990. This shows that the long term borrowing funds increasing and the own funds of the company decreasing, which may lead to the bankrupts at any time.

Table No. (5.6)

The Statement of the Net Fixed Assets to Net Worth Ratios

from 1983 to 1993

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Year</th>
<th>Rassi</th>
<th>Deccan</th>
<th>Kakatiya</th>
<th>NCL</th>
<th>Sagar</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1983</td>
<td>143</td>
<td>349</td>
<td>301</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2.</td>
<td>1984</td>
<td>123</td>
<td>148</td>
<td>150</td>
<td>337</td>
<td>-</td>
</tr>
<tr>
<td>3.</td>
<td>1985</td>
<td>193</td>
<td>98</td>
<td>100</td>
<td>198</td>
<td>238</td>
</tr>
<tr>
<td>4.</td>
<td>1986</td>
<td>225</td>
<td>97</td>
<td>78</td>
<td>150</td>
<td>165</td>
</tr>
<tr>
<td>5.</td>
<td>1987</td>
<td>229</td>
<td>117</td>
<td>69</td>
<td>160</td>
<td>145</td>
</tr>
<tr>
<td>6.</td>
<td>1988</td>
<td>324</td>
<td>103</td>
<td>65</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7.</td>
<td>1989</td>
<td>-</td>
<td>140</td>
<td>61</td>
<td>229</td>
<td>178</td>
</tr>
<tr>
<td>8.</td>
<td>1990</td>
<td>788</td>
<td>-</td>
<td>102</td>
<td>288</td>
<td>174</td>
</tr>
<tr>
<td>9.</td>
<td>1991</td>
<td>545</td>
<td>177</td>
<td>220</td>
<td>301</td>
<td>146</td>
</tr>
<tr>
<td>10.</td>
<td>1992</td>
<td>497</td>
<td>160</td>
<td>233</td>
<td>331</td>
<td>131</td>
</tr>
<tr>
<td>11.</td>
<td>1993</td>
<td>524</td>
<td>148</td>
<td>155</td>
<td>308</td>
<td>140</td>
</tr>
</tbody>
</table>

Net Fixed Assets

\[ \frac{\text{Net Fixed Assets}}{\text{Net Worth}} \times 100 \]

<table>
<thead>
<tr>
<th>Industry Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>264</td>
</tr>
<tr>
<td>190</td>
</tr>
<tr>
<td>165</td>
</tr>
<tr>
<td>143</td>
</tr>
<tr>
<td>144</td>
</tr>
<tr>
<td>164</td>
</tr>
<tr>
<td>152</td>
</tr>
<tr>
<td>338</td>
</tr>
<tr>
<td>278</td>
</tr>
<tr>
<td>270</td>
</tr>
<tr>
<td>255</td>
</tr>
</tbody>
</table>

Average: 359 154 139 256 165 215
2. Deccan :-

It is observed that the net fixed assets to net worth ratio of Deccan had registered a fluctuating trend throughout the period of study. It has registered a lowest average ratio after Kakatiya among all the companies. It is seen that the company had registered two ratios only less than 100 percent i.e 1985 and 1986. But later on it was always more than 100 percent.

This indicates that no working capital was financed through borrowed funds, except during that two years. This indicates unsafe financial management policy of the company which may lead to the bankrupts situation at any point of time.

3. Kakatiya :-

During the period under study, the ratio of this company varied from 61 percent in 1989 to 301 percent in 1983. It was always less than the industry average, except the year 1983 the first year of starting the commercial production. During the first seven years the ratio showed downward trend which reflects the policy of repaying the debts followed the company. The ratio has shown upward trend in later years because the company capacity was increased from (66000) tonnes in 1989 to (198000) tonnes in 1993. This investment came through long term borrowings. It is also observed that over a period of eleven years the company had
financed the net fixed assets out of the borrowed funds and remaining balance was used as working capital. This shows that the company has sound long term financial strength, and the results registered by Kakatiya was the finest in the study.

4. NCL :-

The net fixed assets to net worth ratio of this unit varied between 150 percent in 1986 to 337 percent in 1983, while the industry average was in between 143 percent to 338 percent during the period of study. The ratio was always higher than the industry average except in 1990. During first four years the ratio showed downward trend which indicates that the company followed the policy of repaying the debts. The ratio has shown upward trend in later years, because the plant capacity was increased from 66000 tonnes in 1987 to 1320 tonnes in 1993. The company failed to register any ratio less than 100 percent. If the average of NCL is compared with the other companies, it is observed that the company had registered a highest average ratio of 9 years after Rassi. As the ratio of the company were always more than 100 percent, this indicates that no working capital was financed through borrowed funds. During 1992 and 1993, the company had set up the rehabilitation scheme for ceramic production. On account of it, the ratio jumped upto 331 percent. But during these last three years the share capital went up by Rs.1392.68 lakhs only. There was a substantial
increase in the deferred liabilities (from Rs. 808.32 lakh in 1989 to Rs. 4362.08 lakh in 1992 and Rs. 3551.26 lakh in 1993.

5. Sagar :-

The ratio of this unit varied from 131 percent in 1992 to 238 percent in 1983, during the period of study. Sagar registered four ratios higher than the industry average and they were registered during the early four years. The remaining four years ratio were less than the industry average. During the period the ratio showed declining trend. This reflects the policy of repaying debts followed by the company. Also it suggests that long term borrowings were increasingly used to finance the working capital. In 1989 higher ratio was registered as the company installed DG sets and increased its capacity from 300 TPD to 400 TPD.

The company could not registered any ratio less than 100 percent. But tried to keep its ratio's during the last 4 years as low as possible. If the average of Sagar is compared with Rassi and NCL, it is observed that the company had better long term financial structure as its average was 256 percent. (See Table (5.6)).

The analysis of net fixed assets to Net worth ratio shows following important findings:

1. One of the notable features of the industry was that during the whole period the industry average was higher than 100 percent.
2. It was noticed that the highest ratio registered at the initial stages and during the first year of starting the companies its own commercial production.

3. The fixed assets were financed by borrowed capital by the different companies as huge funds are required to utilise it for the expansion purposes.

4. The industry was following the policy of repaying debt to diminish the ratios registered by the Companies.

5. As the cement industry an capital intensive industry, so the financing of fixed assets by borrowed funds cannot be taken as a sign of weak financial position.

6. The best results were registered here by Kakatiya and the worst results were registered by Rassi as the company incurred losses during (1988-1990) and has heavy loan liabilities.

7. The unfavourable net fixed assets to net worth ratio is occurring on account of the net worth of the company is significantly affected by expansion programmes, financed mainly from borrowings and some times affected by the heavy operating losses.
REFERENCES:


5. Ibid., p. 376.


19. Ibid p. 29.


