

# CHAPTER-6

## DETERMINANTS OF CAPITAL STRUCTURE AT INDUSTRY LEVEL: AN EMPIRICAL ANALYSIS

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## **CHAPTER-6**

### **DETERMINANTS OF CAPITAL STRUCTURE AT INDUSTRY LEVEL: AN EMPIRICAL ANALYSIS**

In this chapter, empirical examination based on industry-wise classification of FDI Companies in India is carried out. An attempt is made to identify industry-wise Determinants of Capital Structure of FDI Companies in India and to examine the differences, if any, in the Capital Structure Determinants of FDI Companies belonging to three major industry groups - Machinery industry, Chemicals industry and Transport industry. Same technique of analysis as applied for company level analysis (Chapter-5) has been applied to examine change if any in the potential Determinants of Capital Structure for FDI Companies within each industry group. This analysis is also done company-wise but within each industry group.

#### **6.1 Results of Industry-Wise Multiple Regression Runs on Debt Ratios**

Out of the final sample set of 140 FDI companies representing 11 industries, three major industry groups having at least 15 member companies are selected for industry-wise analysis. This is necessary for having at least ten data points for conducting multiple regression analysis. This condition is satisfied for three industries as mentioned below:

<b>Sr. No</b>	<b>Industry Classification:</b>	<b>No. of Companies</b>
1	Chemicals	37
2	Machinery	38
3	Transport	18

In Chapter-5, for conducting multiple regressions, four measures of Capital Structure are selected, which includes two Short Term Debt measures, one Long Term Debt measure and one Total Debt Measure. The same measures are selected for carrying out multiple regressions in industry-wise analysis. This will help to examine differences if any in the potential Determinants of Capital Structure of companies belonging to different industry groups.

In Chapter-5, the multiple regression runs reported on each debt measure are: 6 regression runs on STD1/TA ratio, 9 regression runs on TC&E/TA ratio, 6 regression runs on LTD/TA ratio and 6 regression runs on TL/TA ratio. Each of these runs is also conducted in each industry and the best multiple regression runs in each industry are reported for further industry-wise comparison on Capital Structure Determinants. The selected list of indicators representing various determinants also remains the same. Industry-wise correlation matrix is prepared to rule out multicollinearity problem. Since all the regression runs are not reported, a summary of results of all the regression runs conducted on each industry is prepared.

Industry-wise correlation matrix, Variance inflationary factors for each reported multiple regression run of each industry and the summary of results of all the regression runs conducted on each selected measure of debt of each industry are presented at the end of the chapter.

## 6.2 Results of Multiple Regressions Runs: Chemical Industry

Table 6.1 presents the results of multiple regression runs of Chemical industry. Only significant regressions are reported in Table 6.1. The summary results of all the regression runs conducted on all the four debt ratios of Chemical industry are presented at the end of the chapter. Table 6.1.4 presents summary results of all the regression runs of Debt Ratio: STD1/TA. Table 6.1.5 presents summary results of all the regression runs of Debt Ratio: TC&E/TA ratio. Table 6.1.6 presents summary results of all the regression runs of Debt Ratio: LTD/TA. Table 6.1.7 presents summary results of all the regression runs of TL/TA ratio. Correlation matrix of explanatory variables of Debt Ratios from Chemical industry is presented at the end of the chapter in Table 6.1.2. Variance inflationary factors for each reported multiple regression run of Chemical industry are presented at the end of the chapter in Table 6.1.3.

### 6.2.1 Results of Multiple Regressions of STD1/TA Ratio for Chemical Industry:

The value of  $R^2$  in reported regression Run2<sup>b</sup> in Column-1 is 0.587 indicating that 58.7% variations in STD1/TA ratio are explained by significant indicators selected in Run2<sup>b</sup>. The two significant predictors of STD1/TA ratio in Chemical industry are

**Collateral and Liquidity.** In Run 2: Column-1, Table 6.1, it is found out that **Collateral** indicator NFA / TNA has significant negative impact on STD1/TA ratio, the 't' statistic being significant at 1% level of significance. This result affirms the overall regression results of 140 sample FDI Companies and proves that Collaterals in the form of fixed assets are not used to obtain short term finance. **Liquidity** as measured by CA/CL ratio has significant negative impact on STD1/TA ratio, the 't' statistic being significant at 1% level of significance, indicating that greater liquid assets mean that companies finance their short term working capital requirements through these liquid assets and hence do not borrow short term funds. Out of other predictors, Profitability predictor PBT/TNA in Run2<sup>a</sup>: Column-1, is significant and has negative impact on STD1/TA ratio, but is not a significant predictor in Run2<sup>b</sup>: Column-1 (Step-wise regression). Even 'DIV/SC' an indicator for Cost of Equity is significant and has positive impact on STD1/TA ratio in Run2<sup>a</sup>: Column-1, but does not enter the model in stepwise regression in Run2<sup>b</sup>: Column-1. The impact of indicators for **Size, Volatility, Growth rate, Age, Dividend Payout, Net Exports / Sales, Uniqueness, Cost of Borrowing and Cost of Equity** are found insignificant on STD1/TA ratio of companies in Chemical industry.

## 6.2.2 Results of Multiple Regressions of TC&E/TA Ratio for Chemical Industry:

Regression Run1: Column-2, Run 2: Column 3 and Run 5: Column-4 conducted on TC&E/TA in Table 6.1 reveal that the significant determinants of TC&E/TA ratio for Chemical industry are **Size, Collateral, Volatility, Liquidity, Age, and Dividend Payout**. The value of  $R^2$  is highest in Run 1<sup>b</sup>: Column-2, and indicates that a maximum of 70.6% variations in TC&E/TA ratio are explained by significant indicators selected in Regression Run 1<sup>b</sup>: Column-2.

**Size** indicator 'Log of sales' has significant positive impact on TC&E/TA ratio, the 't' statistic being significant at 1% level of significance indicating that in Chemical industry large size firms in terms of greater sales mean greater reliance on trade credits. Increase in sales means increased manufacturing activity which increases the need of short term working capital requirements and leads to greater reliance on trade credits.

**Collateral** indicator GFA/TGA has significant negative impact on TC&E/TA ratio confirming that fixed assets act as Collaterals to obtain Long Term Debt which explains the negative impact of existence of fixed assets on trade credits.

**Volatility** indicator COV of PBIT/TNA has significant positive impact on TC&E/TA ratio of Chemical industry, the 't' statistic significant at 1% level of significance, which again confirms the overall regression results of 140 sample FDI Companies and indicates that FDI Companies in Chemical industry with volatile incomes prefer Short Term Trade Credit as a source of finance.

**Liquidity** as measured by CA/CL ratio has significant negative impact on TC&E/TA ratio, indicating that greater liquid assets mean lower reliance on Trade Credits.

**Cost of Borrowing** indicator INT / DEBT has significant positive impact on TC&E/TA ratio, the 't' statistic being significant at 5% level of significance indicating that as the Cost of Borrowing increases, FDI Companies in Chemical industry resort to greater levels of Short Term Trade Credit.

**Age** factor has significant positive impact on TC&E/TA ratio again confirming ability of mature firms in Chemical industry to avail Trade Credit easily.

**Dividend Payout** indicator - Equity Div/PAT has significant positive impact on TC&E/TA ratio of Chemical industry and the 't' statistic is significant at 5% level of significance. This indicates that in Chemical industry as the Dividend Payout increases, the companies meet their financing requirements by resorting to Short Term Trade Credit. This is an important finding, unique only to Chemical industry as the determinant – Dividend Payout was not significant in overall regression results of 140 sample FDI Companies.

The impact of indicators for **Growth rate, Net Exports/Sales, Uniqueness, and Cost of Equity** is found insignificant on TC&E/TA ratio of companies in Chemical industry.

Table 6.1					
Results of Multiple Regression of Chemical Industry: 37 Companies					
Column 1			Column 2		
Dependent variable: STD1/TA Ratio			Dependent Variable :TC&E/TA Ratio		
	Run 2 <sup>a</sup>	Run 2 <sup>b</sup>		Run 1 <sup>a</sup>	Run 1 <sup>b</sup>
Intercept	0.442	0.571	Intercept	-0.087	0.071
Log of sales	0.015 (1.228) [0.231]	Excluded	Log of sales	0.022 (2.215)* [0.036]	0.030 (3.997)** [.000]
PBT/TNA	-0.822 (-2.944)** [0.007]	Excluded	PBT/TNA	-0.141 (-0.863) [0.396]	Excluded
NFA/TNA	-0.36 (-2.746)* [0.011]	-0.344 (-4.088)** [.000]	NFA/TNA	-0.064 (-0.582) [0.566]	-0.021 (-1.779) [0.085]
COV of PBIT to TNA	0.014 (0.231) [0.819]	Excluded	COV of PBIT to TNA	0.117 (2.209)* [0.037]	0.126 (3.231)** [0.003]
CAGR of TNA	0.051 (0.261) [0.796]	Excluded	CAGR of TNA	0.062 (0.375) [0.711]	Excluded
Log of age of firm	0.019 (0.454) [0.654]	Excluded	Log of age of firm	0.044 (1.258) [0.22]	Excluded
Equity Div/PAT	0.020 (0.501) [0.621]	Excluded	Equity Div/PAT	0.054 (1.637) [0.114]	Excluded
CA/CL	-0.022 (-3.245)** [0.003]	-0.026 (-5.211)** [.000]	CA/CL	-0.018 (-3.530)** [0.002]	-0.021 (-5.046)** [.000]
Net exp/Sales	0.061 (1.002) [0.326]	Excluded	Net exp/Sales	-0.046 (-0.897) [0.378]	Excluded
R&D/Sales	0.823 (0.559) [0.581]	Excluded	R&D/Sales	-0.700 (-0.584) [0.565]	Excluded
INT/DEBT	0.070 (0.415) [0.682]	Excluded	INT/DEBT	0.324 (2.245)* [0.034]	0.320 (2.367)* [0.024]
DIV/SC	0.575 (2.323)* [0.029]	Excluded	DIV/SC	---	---
PBDIT/INT	---	---	PBDIT/INT	---	---
R <sup>2</sup>	0.784	0.610	R <sup>2</sup>	0.793	0.747
Adjusted R <sup>2</sup>	0.676	0.587	Adjusted R <sup>2</sup>	0.701	0.706
F statistic	7.265** [.000]	26.631** [.000]	F statistic	8.691** [.000]	18.308** [.000]
<sup>a</sup> Multiple Regression , <sup>b</sup> Stepwise Regression, * indicates significance at 5% level, ** indicates significance at 1% level , (t-statistics) , [p-value]					

<b>Table 6.1 Continued</b> <b>Results of Multiple Regression of Chemical Industry: 37 Companies</b> <b>Dependent variable: TC&amp;E / TA Ratio</b>					
Column 3			Column 4		
	Run2 <sup>a</sup>	Run 2 <sup>b</sup>		Run5 <sup>a</sup>	Run5 <sup>b</sup>
Intercept	-0.37	-0.048	Intercept	-0.025	0.429
Log of sales	0.023 (2.370)* [0.026]	Excluded	Log of GTFA	0.017 (1.814) [0.082]	Excluded
PBT / TNA	0.051 (0.249) [0.805]	Excluded	PBITDA / TGA	-0.525 (-2.902)** [0.008]	Excluded
(Nfa+Inv+AR) / TNA	0.180 (1.160) [0.257]	Excluded	GFA / TGA	-0.155 (-1.396) [0.175]	-0.275 (-3.766)** [0.001]
COV of PBIT to TNA	0.151 (2.840)** [0.009]	Excluded	SD of PBITDA / TGA	1.120 (2.481)* [0.021]	Excluded
CAGR of TNA	0.110 (0.659) [0.516]	Excluded	CAGR of sales	0.300 (1.573) [0.129]	Excluded
Log of age of firm	0.056 (1.934) [0.065]	0.088 (3.399)** [0.002]	Log of age	0.061 (1.763) [0.091]	Excluded
Equity Div / PAT	0.072 (2.501)* [0.019]	0.062 (2.131)* [0.041]	Eq Div / PAT	0.049 (1.648) [0.112]	Excluded
CA / CL	-0.017 (-3.216)** [0.004]	-0.024 (-5.458)** [.000]	CA / CL	-0.019 (-3.860)** [0.001]	-0.024 (-5.325)** [.000]
Net exp / Sales	-0.059 (-1.223) [0.233]	Excluded	Net exp / Sales	-0.052 (-1.044) [0.307]	Excluded
R&D / Sales	-0.265 (-0.235) [0.816]	Excluded	R&D / Sales	-1.402 (-1.166) [0.255]	Excluded
INT / DEBT	0.350 (2.702)* [0.012]	Excluded	INT / DEBT	0.296 (2.102)* [0.046]	Excluded
DIV / SC	---	---	DIV / SC	---	---
PBDIT / INT	---	---	PBDIT / INT	3.46E-06 (0.201) [0.842]	Excluded
R <sup>2</sup>	0.801	0.623	R <sup>2</sup>	0.811	0.596
Adjusted R <sup>2</sup>	0.713	0.589	Adjusted R <sup>2</sup>	0.717	0.572
F statistic	9.126** [.000]	18.184** [.000]	F statistic	8.598** [.000]	25.073** [.000]
<sup>a</sup> Multiple Regression , <sup>b</sup> Stepwise Regression, * indicates significance at 5% level, ** indicates significance at 1% level , (t-statistics) , [p-value]					



Table 6.1 continued								
Results of Multiple Regression of Chemical Industry: 37 Companies								
Dependent variable: LTD / TA Ratio								
Column 5			Column 6			Column 7		
	Run 1 <sup>a</sup>	Run 1 <sup>b</sup>		Run2 <sup>a</sup>	Run 2 <sup>b</sup>		Run4 <sup>a</sup>	Run4 <sup>b</sup>
Intercept	0.444	0.044	Intercept	0.548	0.747	Intercept	0.494	0.004
Log of sales	-0.012 (-1.070) [0.295]	Excluded	Log of TNA	-0.001 (-0.062) [0.951]	Excluded	Log of GTFA	-0.009 (-0.759) [0.455]	Excluded
PBT / TNA	-0.326 (-1.785) [0.086]	-0.504 (-3.229)** [0.003]	PBT / TNA	-0.295 (-1.172) [0.252]	-0.449 (-2.911)** [0.070]	PBITDA / TGA	-0.346 (-1.470) [0.155]	-0.496 (-2.119)* [0.042]
NFA / TNA	0.270 (2.187)* [0.038]	0.518 (5.719)** [0.000]	(Nfa+Inv+AR) / TNA	0.205 (1.053) [0.303]	Excluded	GFA / TGA	0.238 (1.653) [0.111]	0.500 (4.992)** [0.000]
COV of PBIT to TNA	0.005 (0.080) [0.937]	Excluded	COV of PBIT to TNA	-0.006 (-0.099) [0.922]	Excluded	SD of PBITDA / TGA	0.141 (0.240) [0.812]	Excluded
CAGR of TNA	0.204 (1.101) [0.281]	Excluded	CAGR of TNA	0.231 (1.102) [0.281]	Excluded	CAGR of sales	0.211 (0.852) [0.403]	Excluded
Log of age of firm	-0.046 (-1.171) [0.253]	Excluded	Log of age of firm	-0.103 (-3.094)** [0.005]	-0.109 (-4.008)** [0.000]	Log of age	-0.067 (-1.502) [0.146]	Excluded
Equity Div / PAT	-0.044 (-1.186) [0.247]	Excluded	Equity Div / PAT	-0.078 (-2.242)* [0.034]	-0.078 (-2.469)* [0.019]	Eq Div / PAT	-0.064 (-1.663) [0.109]	Excluded
CA / CL	-0.008 (-1.447) [0.160]	Excluded	CA / CL	-0.007 (-1.034) [0.311]	Excluded	CA / CL	-0.007 (-1.005) [0.325]	Excluded
Net exp / Sales	-0.123 (-2.138)* [0.042]	-0.138 (-3.166)** [0.003]	Net exp / Sales	-0.081 (-1.390) [0.177]	-0.130 (-3.088)** [0.004]	Net exp / Sales	-0.128 (-1.983) [0.059]	-0.143 (-2.823)** [0.008]
R&D / Sales	-3.194 (-2.381)* [0.025]	Excluded	R&D / Sales	-3.807 (-2.758)* [0.011]	-3.387 (-2.694)* [0.011]	R&D / Sales	-3.172 (-2.032) [0.053]	Excluded
INT / DEBT	-0.491 (-3.040)** [0.005]	Excluded	INT / DEBT	-0.621 (-3.919)** [0.001]	-0.571 (-3.880)** [0.001]	INT / DEBT	-0.502 (-2.741)* [0.011]	Excluded
DIV / SC	—	—	DIV / SC	—	—	DIV / SC	—	—
PBDIT / INT	—	—	PBDIT / INT	—	—	PBDIT / INT	-1.33E-06 (-0.060) [0.953]	Excluded
R <sup>2</sup>	0.820	0.705	R <sup>2</sup>	0.792	0.757	R <sup>2</sup>	0.779	0.596
Adjusted R <sup>2</sup>	0.741	0.679	Adjusted R <sup>2</sup>	0.700	0.708	Adjusted R <sup>2</sup>	0.669	0.560
F statistic	10.354** [0.000]	26.327** [0.000]	F statistic	8.635** [0.000]	15.559** [0.000]	F statistic	7.058** [0.000]	16.254** [0.000]
<sup>a</sup> Multiple Regression , <sup>b</sup> Stepwise Regression, * indicates significance at 5% level, ** indicates significance at 1% level , (t-statistics) , [p-value]								

Table 6.1 continued								
Results of Multiple Regression of Chemical Industry: 37 Companies								
Dependent variable: LTD/TA Ratio			Dependent variable: TL/TA ratio					
Column 8			Column 9			Column 10		
	Run5 <sup>a</sup>	Run5 <sup>b</sup>		Run 1 <sup>a</sup>	Run 1 <sup>b</sup>		Run 4 <sup>a</sup>	Run 4 <sup>b</sup>
Intercept	0.379	-0.120	Intercept	0.432	0.752	Intercept	0.878	0.748
Log of TNA	-0.009 (-0.720) [0.478]	Excluded	Log of sales	0.012 (0.764) [0.452]	Excluded	Log of sales	0.003 (0.206) [0.839]	Excluded
PBT/TNA	—	—	PBT/TNA	-0.37 (-1.111) [0.277]	-0.805 (-4.433)** [.000]	PBT/TNA	-1.096 (-2.870)** [0.008]	-1.352 (-4.956)** [.000]
NFA/TNA	0.327 (2.647)* [0.014]	0.627 (7.394)** [.000]	(Nfa+Inv+AR)/TNA	0.313 (1.235) [0.228]	Excluded	NFA/TNA	-0.078 (-0.435) [0.668]	Excluded
COV of PBIT to TNA	0.039 (0.706) [0.487]	0.123 (2.548)* [0.016]	COV of PBIT to TNA	0.089 (1.027) [0.314]	Excluded	COV of PBIT to TNA	0.025 (0.295) [0.771]	Excluded
CAGR of TNA	0.251 (1.274) [0.214]	Excluded	CAGR of TNA	0.351 (1.290) [0.209]	Excluded	CAGR of TNA	0.256 (0.962) [0.346]	Excluded
Log of age of firm	-0.048 (-1.210) [0.237]	Excluded	Log of age of firm	-0.021 (-0.451) [0.656]	Excluded	Log of age of firm	-0.029 (-0.513) [0.613]	Excluded
Equity Div/PAT	-0.041 (-1.094) [0.284]	Excluded	Equity Div/PAT	0.013 (0.286) [0.777]	Excluded	Equity Div/PAT	-0.022 (-0.404) [0.690]	Excluded
CA/CL	-0.011 (-1.812) [0.082]	Excluded	CA/CL	-0.034 (-3.954)** [0.001]	-0.037 (-5.963)** [.000]	CA/CL	-0.031 (-3.346)** [0.003]	-0.030 (-4.870)** [.000]
Net exp/Sales	-0.124 (-2.071)* [0.049]	-0.194 (-3.937)** [.000]	Net exp/Sales	-0.056 (-0.711) [0.484]	Excluded	Net exp/Sales	-0.063 (-0.763) [0.453]	Excluded
R&D/Sales	-3.502 (-2.454)* [0.021]	Excluded	R&D/Sales	-2.874 (-1.564) [0.130]	Excluded	R&D/Sales	-2.404 (-1.193) [0.244]	Excluded
INT/DEBT	-0.497 (-3.011)** [0.006]	Excluded	INT/DEBT	-0.433 (-2.053) [0.051]	Excluded	INT/DEBT	-0.414 (-1.788) [0.086]	Excluded
DIV/SC	-0.245 (-1.479) [0.152]	Excluded	DIV/SC	—	—	DIV/SC	0.524 (1.549) [0.134]	0.685 (2.548)* [0.016]
PBDIT/INT	—	—	PBDIT/INT	—	—	PBDIT/INT	—	—
R <sup>2</sup>	0.808	0.676	R <sup>2</sup>	0.724	0.607	R <sup>2</sup>	0.734	0.672
Adjusted R <sup>2</sup>	0.723	0.646	Adjusted R <sup>2</sup>	0.603	0.584	Adjusted R <sup>2</sup>	0.602	0.642
F statistic	9.551** [.000]	22.941** [.000]	F statistic	5.970** [.000]	26.244** [.000]	F statistic	5.530** [.000]	22.488** [.000]
<sup>a</sup> Multiple Regression, <sup>b</sup> Stepwise Regression, * indicates significance at 5% level, ** indicates significance at 1% level, (t-statistics), [p-value]								

### 6.2.3 Results of Multiple Regressions of LTD/TA Ratio for Chemical Industry:

The value of  $R^2$  is highest in Run 2<sup>b</sup>: Column-6 and indicates that a maximum of 70.8% variations in LTD/TA ratio are explained by significant indicators selected in Regression Run 2<sup>b</sup>: Column-6. The significant determinants of LTD/TA ratio in Chemical industry are **Profitability, Collateral, Volatility, Age, Dividend Payout, Net Exports/Sales, Uniqueness and Cost of Borrowings**.

Both **Profitability** indicators PBT/TNA and PBITDA/TGA have significant negative impact on LTD/TA ratio of Chemical industry and the 't' statistic is significant at 1% level of significance. This is in confirmation with the Pecking Order Theory and indicates that companies in Chemical industry prefer using internally generated reserves created out of profits to finance their assets.

**Collateral** effect as measured by indicators NFA/ TNA and GFA/ TGA has significant positive impact on LTD/TA ratio confirming that in Chemical industry Long Term Debt is used to finance fixed assets and fixed assets in turn act as Collaterals to obtain Long Term Debt. Volatility indicator COV of PBIT/TNA has significant positive impact on LTD/TA ratio which is in line with the overall regression results of 140 sample FDI Companies together. This result indicates that in spite of volatile earnings, FDI Companies in Chemical industry do not hesitate to borrow Long Term Funds. This also indicates that these companies must be highly profitable companies with large built up cash reserves to meet the costs of long term funding requirements in case of need.

**Age** is a significant predictor of LTD/TA ratio in Chemical industry and enters the model with a negative coefficient, the 't' statistic being significant at 1% level of significance. Mature age companies either have enough internally generated reserves or they do not need to borrow as they have exhausted their growth opportunities and hence Age has negative impact on LTD/TA ratio.

**Dividend Payout** indicator 'Equity Div/PAT' has significant negative impact on LTD/TA ratio indicating that a higher Dividend Payout ratio would mean lower levels of Long Term Debt. This might be due to the fact that companies in Chemical industry might be following sticky dividend policies as suggested by Myers (1984) and might be setting out target Dividend Payout ratios. This results in lower preference for long term when there are high Dividend Payouts. **Net exports/Sales** has significant negative impact on LTD/TA ratio in all the reported regression runs and the 't' statistic is significant at 1% level of significance. This indicates that

companies from Chemical industry who are net exporters already avail lot of tax concessions and other benefits by virtue of being net exporters and hence resort to lower levels of Long Term Debt in their capital structure.

**Uniqueness** indicator R&D / sales has significant negative impact on LTD/TA ratio, the 't' statistic being significant at 1% level of significance. Although the result is consistent with the results of Titman & Wessel's (1988)<sup>1</sup> and Bhaduri (2002)<sup>2</sup>, it is in contrast to overall regression results of 140 Sample FDI Companies where Uniqueness had positive impact on Long Term Debt ratio. This might be due to the fact that these companies from Chemical industry who are engaged in research activities either believe funding their research and development activities through internally generated funds or might be facing difficulty in raising Long Term Debt funds due to unique nature of their business activity.

**Cost of Borrowing** indicator INT/DEBT has significant negative impact on LTD/TA ratio of Chemical industry, the 't' statistic being significant at 1% level of significance indicating that as the cost of borrowing increase, companies dependence on long term borrowings also reduces. Since Cost of Borrowing has positive impact on TC&E/TA ratio of Chemical industry, it means that companies from Chemical industry meet their financing requirements by availing Short Term Trade Credit when Cost of Borrowing increases.

The impact of indicators for **Size, Growth rate, Liquidity, Debt Service Capacity and Cost of Equity** is found insignificant on LTD/TA ratio of companies in Chemical industry.

#### **6.2.4 Results of Multiple Regressions of TL/TA Ratio for Chemical Industry:**

The value of  $R^2$  is highest in Run 4<sup>b</sup>: Column-10 and indicates that a maximum of 64.2% variations in TL/TA ratio is explained by significant indicators selected in Regression Run 4<sup>b</sup>: Column-10. The significant determinants of TL/TA ratio in Chemical industry are **Profitability, Liquidity and Cost of Equity**.

**Profitability** indicator PBT/TNA has significant negative impact on TL/TA ratio of Chemical industry and the 't' statistic is significant at 1% level of significance confirming the predictions of Pecking Order Theory. **Liquidity** as measured by CA/CL ratio has significant negative impact on TL/TA ratio, the 't' statistic is significant at 1% level of significance indicating that greater liquid assets mean lower reliance on debt. **Cost of Equity** indicator DIV/SC has significant positive impact on

TL/TA ratio of Chemical industry and the 't' statistic is significant at 5% level of significance. This might be due to the fact that companies from Chemical industry heavily rely on Short Term Debt like Trade Credit (Table 4.4, Ch. 4) and a major proportion of Total liabilities come from Short Term Debt Funds. Therefore, when the Cost of Equity increases, the companies meet their financing requirements by resorting to Short Term Trade Credit and hence the positive impact of Cost of Equity on TL/TA ratio.

The impact of indicators for **Size, Collateral, Volatility, Growth rate, Age, Dividend Payout, Net exports/Sales, Uniqueness and Cost of Debt** have insignificant impact on TL/TA ratio of companies in Chemical Industry.

Table 6.1.1					
Summary of Mutiple Regression Results in Chemical Industry (37 FDI Companies)					
Dependent variables- Debt Ratios		STD1/TA	TC&E/TA	LTD/TA	TL/TA
Independent Variables	Indicators				
Size	Log of sales	N.S	+VE**	N.S	N.S
	Log of TNA	N.S	N.S	N.S	---
	Log of GTFA	---	---	N.S	---
Profitability	PBT/TNA	N.S	N.S	-VE**	-VE**
	PBITDA/TGA	---	N.S	-VE**	---
Collateral	NFA/TNA	-VE**	N.S	+VE**	N.S
	GFA/TGA	---	-VE**	+VE**	---
	(Nfa+Inv+AR)/TNA	---	N.S	N.S	N.S
	INV/TNA	N.S	---	---	---
Volatility	COV of PBIT/ TNA	N.S	+VE**	N.S	N.S
	SD of PBITDA/TGA	---	N.S	N.S	---
Growth rate	CAGR of TNA	N.S	N.S	N.S	N.S
	CAGR of sales	N.S	N.S	N.S	---
NDTS	Depr/TGA	---	---	---	---
Debt Service capacity	PBDIT/INT	---	N.S	N.S	---
Age	Log of age of firm	N.S	+VE**	-VE**	N.S
Dividend payout	Equity Div/PAT	N.S	+VE*	-VE*	N.S
Liquidity	CA/CL	-VE**	-VE**	N.S	-VE**
Net Exports	Net exp/Sales	N.S	N.S	-VE**	N.S
Cost of Equity	DIV/SC	N.S	---	---	+VE*
Uniqueness	R&D/Sales	N.S	N.S	-VE**	N.S
Cost of Borrowing	INT/DEBT	N.S	N.S	-VE**	N.S
* Indicates significance at 5% level, ** indicates significance at 1% level					
Not Significant=(NS), Positive= (+VE), Negative =(-VE)					
A Dash means -- the indicator is not included in final regression runs					

Table 6.1.1 presents the results for four measures of debt in summary form together.

### 6.3 Results of Multiple Regression Runs: Machinery Industry

Table 6.2 presents the results of multiple regression runs on Debt Ratios of Chemical industry. Only significant regressions are reported in Table 6.2. The summary results of all the regression runs conducted on all the four Debt Ratios of Machinery industry are presented at the end of the chapter. Table 6.2.4 presents summary results of all the regression runs on Debt Ratio: STD1/TA. Table 6.2.5 presents summary results of all the regression runs on Debt Ratio: TC&E/TA ratio. Table 6.2.6 presents summary results of all the regression runs on Debt Ratio: LTD/TA. Table 6.2.7 presents summary results of all the regression runs on TL/TA ratio. Correlation matrix of explanatory variables of Debt Ratios from Machinery industry is presented at the end of the chapter in Table 6.2.2. Variance inflationary factors for each reported multiple regression run of Machinery industry are presented at the end of the chapter in Table 6.2.3.

#### 6.3.1 Results of Multiple Regressions on STD1/TA Ratio in Machinery Industry:

The value of  $R^2$  in reported regression Run6<sup>b</sup>: Column-1 is 0.620 indicating that 62% variations in STD1/TA ratio are explained by significant indicators selected in Run6<sup>b</sup>. The three significant predictors of STD1/TA ratio in Machinery industry are **Collateral**, **Volatility** and **Liquidity**. It is found that **Collateral** indicator NFA/TNA has significant negative impact on STD1/TA ratio, the 't' statistic being significant at 1% level of significance. This result is in confirmation of the overall regression results of 140 sample FDI Companies. **Volatility** indicator COV of PBIT/TNA has significant positive impact on STD1/TA ratio of Machinery and the 't' statistic is significant at 1% level of significance indicating preference for Short Term Debt with increase in volatility of earnings. **Liquidity** as measured by CA/CL ratio has significant negative impact on STD1/TA ratio, the 't' statistic being significant at 1% level of significance, indicating that availability of liquid assets would mean that companies will prefer lower amount of Short Term Debt funds as they can finance their short term working capital requirements through these- liquid-assets.

The impact of indicators for **Size, Growth rate, Age, Dividend Payout, Net Exports/Sales, Uniqueness, Cost of Borrowing and Cost of Equity** is found insignificant on STD1/TA ratio of companies in Machinery industry.

### **6.3.2 Results of Multiple Regressions of TC&E/TA Ratio for Machinery Industry:**

Regression Run 1: Column-2 and Run 7: Column-3 on TC&E/TA in Table 6.2 reveals that the significant determinants of TC&E/TA ratio in Machinery industry are **Profitability, Collateral, Volatility and Liquidity**. The value of  $R^2$  is highest in Run 7<sup>b</sup>: Column-3 and indicates that a maximum of 84% variations in TC&E/TA ratio are explained by significant indicators selected in Regression Run 7<sup>b</sup>: Column-3.

**Profitability** indicator PBITDA/GFA has significant negative impact on TC&E/TA ratio of Machinery industry and the 't' statistic is significant at 1% level of significance. This indicates that profitable companies in Machinery industry resort to lower levels of trade credit as they have sufficient funds to finance their short term working capital requirements.

**Collateral** indicator GFA/TGA has significant negative impact on TC&E/TA ratio confirming that tangible fixed assets act as collaterals to obtain more of Long Term Debt rather than Short Term Debt.

**Volatility** indicator COV of PBIT/TNA has significant positive impact on TC&E/TA ratio of Machinery industry, the 't' statistic significant at 1% level of significance, which again confirms the overall regression results of 140 sample FDI Companies and indicates that FDI Companies in Machinery industry with volatile incomes prefer Short Term Trade Credit as a source of finance.

**Liquidity** as measured by CA/CL ratio has significant negative impact on TC&E/TA ratio, indicating that greater liquid assets mean lower reliance on Trade Credits.

The impact of indicators for **Size, Growth rate, Age, Dividend Payout, Net Exports/Sales, Uniqueness, Cost of Debt, Debt Service capacity, Cost of Equity** and **NDTS** is found insignificant on TC&E/TA ratio of companies in Chemical industry.

Table 6.2								
Results of Multiple Regression of Machinery Industry: 38 Companies								
Dependent variable: STD1 / TA Ratio			Dependent Variable :TC & E / TA Ratio					
Column 1			Column 2			Column 3		
	Run6 <sup>a</sup>	Run6 <sup>b</sup>		Run 1 <sup>a</sup>	Run 1 <sup>b</sup>		Run7 <sup>a</sup>	Run7 <sup>b</sup>
Intercept	0.867	0.633	Intercept	0.699	0.517	Intercept	0.727	0.581
Log of TNA	0.018 (0.923) [0.365]	Excluded	Log of sales	0.014 (1.342) [0.191]	Excluded	Log of GTFA	0.022 (-2.024)* [0.055]	Excluded
PBT / TNA	-0.797 (-1.499) [0.147]	Excluded	PBT / TNA	-0.375 (-1.469) [0.154]	Excluded	PBITDA / TGA	-1.008 (-2.731)* [0.012]	-0.880 (-4.133)** [.000]
NFA / TNA	-0.869 (-4.254)** [.000]	-0.618 (-3.507)** [0.001]	NFA / TNA	-0.695 (-5.899)** [.000]	-0.513 (-4.763)** [.000]	GFA / TGA	-0.462 (-3.088)** [0.005]	-0.324 (-4.537)** [.000]
INV / TNA	0.544 (1.273) [0.215]	Excluded	INV / TNA	---	---	INV / TNA	---	---
COV of PBIT to TNA	0.052 (3.236)** [0.004]	0.065 (5.558)** [.000]	COV of PBIT to TNA	0.033 (3.545)** [0.002]	0.039 (5.506)** [.000]	SD of PBITDA / TGA	0.913 (4.561)** [.000]	0.962 (6.221)** [.000]
CAGR of sales	0.162 (0.436) [0.667]	Excluded	CAGR of TNA	-0.042 (-0.218) [0.829]	Excluded	CAGR of sales	-0.113 (-0.603) [0.553]	Excluded
Log of age of firm	-0.137 (-2.122)* [0.044]	Excluded	Log of age of firm	-0.064 (-1.930) [0.065]	Excluded	Log of age	-0.037 (-1.059) [0.300]	Excluded
Equity Div / PAT	0.183 (1.555) [0.133]	Excluded	Equity Div / PAT	0.128 (1.977) [0.059]	Excluded	Eq Div / PAT	0.043 (0.707) [0.487]	Excluded
CA / CL	-0.009 (-0.517) [0.610]	-0.03 (-2.549)* [0.015]	CA / CL	-0.035 (-4.116)** [.000]	-0.044 (-6.106)** [.000]	CA / CL	-0.032 (-3.916)** [0.001]	-0.036 (-5.625)** [.000]
Net exp / Sales	0.328 (1.760) [0.091]	Excluded	Net exp / Sales	0.188 (1.825) [0.080]	Excluded	Net exp / Sales	0.101 (0.864) [0.397]	Excluded
R&D / Sales	-4.759 (-1.118) [0.275]	Excluded	R&D / Sales	-4.631 (-1.978) [0.059]	Excluded	R&D / Sales	-3.480 (-1.413) [0.171]	Excluded
INT / DEBT	0.545 (1.111) [0.278]	Excluded	INT / DEBT	0.301 (1.171) [0.252]	Excluded	INT / DEBT	-0.007 (-0.029) [0.977]	Excluded
PBDIT / INT	---	---	PBDIT / INT	---	---	PBDIT / INT	.000 (0.949) [0.352]	Excluded
DIV / SC	0.682 (0.768) [0.450]	Excluded	DIV / SC	---	---	DIV / SC	-0.206 (-0.437) [0.666]	Excluded
Depr / TGA	---	---	Depr / TGA	---	---	Depr / TGA	-0.368 (-0.195) [0.847]	Excluded
R <sup>2</sup>	0.774	0.651	R <sup>2</sup>	0.863	0.784	R <sup>2</sup>	0.892	0.857
Adjusted R <sup>2</sup>	0.651	0.620	Adjusted R <sup>2</sup>	0.805	0.765	Adjusted R <sup>2</sup>	0.826	0.840
F statistic	6.306** [.000]	21.122** [.000]	F statistic	14.885** [.000]	41.100** [.000]	F statistic	13.516** [.000]	49.474** [.000]
<sup>a</sup> Multiple Regression , <sup>b</sup> Stepwise Regression, * indicates significance at 5% level, ** indicates significance at 1% level , (t-statistics) , [p-value]								



Table 6.2 continued								
Results of Multiple Regression of Machinery Industry: 38 Companies								
Dependent variable: LTD / TA Ratio								
Column 4			Column 5			Column 6		
	Run 1 <sup>a</sup>	Run 1 <sup>b</sup>		Run4 <sup>a</sup>	Run4 <sup>b</sup>		Run5 <sup>a</sup>	Run5 <sup>b</sup>
Intercept	-0.099	0.118	Intercept	-0.112	-0.030	Intercept	-0.07	-0.057
Log of sales	-0.011 (-0.892) [0.381]	Excluded	Log of GTFA	0.004 (0.303) [0.765]	Excluded	Log of TNA	-0.005 (-0.365) [0.718]	Excluded
PBT / TNA	-0.349 (-1.157) [0.258]	-0.809 (-4.629)** [.000]	PBITDA / TGA	0.013 (0.035) [0.972]	-0.516 (-1.963)* [0.058]	PBT / TNA	---	---
NFA / TNA	0.519 (3.734)** [0.001]	0.371 (3.174)** [0.003]	GFA / TGA	0.467 (3.859)** [0.001]	0.390 (4.148)** [.000]	NFA / TNA	0.525 (3.636)** [0.001]	0.471 (4.088)** [.000]
COV of PBIT to TNA	0.015 (1.327) [0.196]	Excluded	SD of PBITDA	0.666 (2.812)** [0.009]	0.606 (2.899)** [0.007]	COV of PBIT to TNA	0.019 (1.801) [0.083]	0.03 (4.134)** [.000]
CAGR of TNA	-0.017 (-0.077) [0.939]	Excluded	CAGR of sales	-0.207 (-0.958) [0.347]	Excluded	CAGR of TNA	-0.139 (-0.585) [0.563]	Excluded
Log of age of firm	0.063 (1.620) [0.117]	Excluded	Log of age	0.038 (0.915) [0.369]	Excluded	Log of age of firm	0.048 (1.173) [0.251]	Excluded
Equity Div / PAT	-0.098 (-1.278) [0.213]	Excluded	Eq Div / PAT	-0.140 (-1.999) [0.057]	Excluded	Equity Div / PAT	-0.114 (-1.396) [0.175]	Excluded
CA / CL	-0.008 (-0.838) [0.410]	Excluded	CA / CL	-0.015 (-1.538) [0.137]	Excluded	CA / CL	-0.011 (-1.190) [0.245]	Excluded
Net exp / Sales	-0.300 (-2.467)* [0.021]	Excluded	Net exp / Sales	-0.415 (-3.276)** [0.003]	-0.332 (-3.149)** [0.003]	Net exp / Sales	-0.315 (-2.399)* [0.024]	-0.323 (-3.232)** [0.003]
R&D / Sales	0.023 (0.008) [0.993]	Excluded	R&D / Sales	3.262 (1.100) [0.282]	Excluded	R&D / Sales	0.278 (0.095) [0.925]	Excluded
INT / DEBT	-0.208 (-0.686) [0.499]	Excluded	INT / DEBT	-0.520 (-1.751) [0.092]	Excluded	INT / DEBT	-0.294 (-0.948) [0.352]	Excluded
PBDIT / INT	---	---	PBDIT / INT	.000 (-0.536) [0.597]	Excluded	PBDIT / INT	---	---
DIV / SC	---	---	DIV / SC	---	---	DIV / SC	-0.150 (-0.294) [0.771]	Excluded
Depr / TGA	---	---	Depr / TGA	---	---	Depr / TGA	---	---
R <sup>2</sup>	0.637	0.497	R <sup>2</sup>	0.666	0.530	R <sup>2</sup>	0.61	0.529
Adjusted R <sup>2</sup>	0.483	0.468	Adjusted R <sup>2</sup>	0.506	0.473	Adjusted R <sup>2</sup>	0.445	0.487
F statistic	4.142** [.001]	17.261** [.000]	F statistic	4.152** [.001]	9.293** [.000]	F statistic	3.702** [0.003]	12.732** [.000]
<sup>a</sup> Multiple Regression , <sup>b</sup> Stepwise Regression, * indicates significance at 5% level, ** indicates significance at 1% level , (t-statistics) , [p-value]								

Table 6.2 continued								
Results of Multiple Regression of Machinery Industry: 38 Companies								
Dependent variable: LTD / TA Ratio			Dependent variable: TL / TA ratio					
Column 7			Column 8			Column 9		
	Run6 <sup>a</sup>	Run6 <sup>b</sup>		Run 1 <sup>a</sup>	Run 1 <sup>b</sup>		Run 2 <sup>a</sup>	Run 2 <sup>b</sup>
Intercept	-0.089	0.07	Intercept	0.367	-0.044	Intercept	0.572	0.625
Log of GTFA	.000 (-0.013) [0.990]	Excluded	Log of sales	-0.019 (-0.814) [0.423]	Excluded	Log of sales	-0.016 (-0.721) [0.477]	Excluded
PBITDA / TGA	-0.211 (-0.512) [0.613]	-0.610 (-2.548)* [0.016]	PBT / TNA	-0.388 (-0.636) [0.530]	Excluded	PBT / TNA	-0.986 (-1.834) [0.078]	-1.187 (-2.768)** [0.009]
GFA / TGA	0.783 (4.699)** [.000]	0.716 (5.235)** [.000]	(Nfa+Inv+AR) / TNA	0.576 (1.832) [0.078]	0.64 (2.854)** [0.007]	INV / TNA	1.199 (2.396)* [0.024]	Excluded
SD of PBITDA	0.521 (2.340)* [0.028]	Excluded	COV of PBIT to TNA	0.084 (4.046)** [.000]	0.095 (6.725)** [.000]	COV of PBIT to TNA	0.075 (3.789)** [0.001]	0.068 (3.711)** [0.001]
CAGR of sales	-0.021 (-0.099) [0.922]	Excluded	CAGR of TNA	0.336 (0.790) [0.436]	Excluded	CAGR of TNA	0.863 (1.868) [0.073]	Excluded
Log of age	0.038 (0.986) [0.334]	Excluded	Log of age of firm	-0.069 (-0.880) [0.387]	Excluded	Log of age of firm	-0.096 (-1.231) [0.229]	Excluded
Eq Div / PAT	-0.121 (-1.799) [0.085]	Excluded	Equity Div / PAT	0.038 (0.280) [0.782]	Excluded	Equity Div / PAT	0.091 (0.679) [0.503]	Excluded
CA / CL	-0.013 (-1.385) [0.179]	Excluded	CA / CL	-0.027 (-1.431) [0.164]	Excluded	CA / CL	-0.018 (-0.923) [0.365]	Excluded
Net exp / Sales	-0.500 (-3.832)** [0.001]	-0.360 (-3.611)** [0.001]	Net exp / Sales	0.104 (0.436) [0.666]	Excluded	Net exp / Sales	0.048 (0.221) [0.827]	Excluded
R&D / Sales	2.886 (1.052) [0.304]	Excluded	R&D / Sales	-5.278 (-1.025) [0.315]	Excluded	R&D / Sales	-3.924 (-0.780) [0.442]	Excluded
INT / DEBT	-0.528 (-1.918) [0.068]	Excluded	INT / DEBT	0.652 (1.137) [0.266]	Excluded	INT / DEBT	0.835 (1.477) [0.152]	Excluded
DIV / SC	0.128 (0.244) [0.810]	Excluded	DIV / SC	—	—	DIV / SC	—	—
PBDIT / INT	-4.30E-05 (-0.196) [0.846]	Excluded	PBDIT / INT	—	—	PBDIT / INT	—	—
Depr / TGA	-5.551 (-2.645)** [0.014]	-6.808 (-3.736)** [0.001]	Depr / TGA	—	—	Depr / TGA	—	—
R <sup>2</sup>	0.744	0.585	R <sup>2</sup>	0.733	0.635	R <sup>2</sup>	0.753	0.631
Adjusted R <sup>2</sup>	0.589	0.535	Adjusted R <sup>2</sup>	0.620	0.614	Adjusted R <sup>2</sup>	0.649	0.610
F statistic	4.783** [.000]	11.645 [.000]	F statistic	6.492** [.000]	30.420** [.000]	F statistic	7.210** [.000]	29.884** [.000]
<sup>a</sup> Multiple Regression , <sup>b</sup> Stepwise Regression, * indicates significance at 5% level, ** indicates significance at 1% level , (t-statistics) , [p-value]								

### 6.3.3 Results of Multiple Regressions of LTD/TA Ratio for Machinery Industry

Out of the four regression runs reported in Table 6.2 on LTD/TA ratio, the value of  $R^2$  is highest in Run 6<sup>b</sup>: Column-7 and indicates that a maximum of 53.5% variance in LTD/TA ratio in Machinery industry is explained by significant indicators selected in regression Run 6<sup>b</sup>: Column-7. The significant determinants of LTD/TA ratio in Machinery industry are **Profitability, Collateral, Volatility, Net Exports/Sales and NDTs**.

Both **Profitability** indicators PBT/TNA and PBITDA/TGA have significant negative impact on LTD/TA ratio of Machinery industry and the 't' statistic is significant at 1% and 5% level of significance respectively. These results confirm to the predictions of Pecking order theory and indicate that profitable companies in Machinery industry prefer using internally generated reserves finance their investments. **Collateral** effect as measured by indicators NFA/TNA and GFA/TGA has significant positive impact on LTD/TA ratio and the 't' statistic is significant at 1% level of significance confirming that in Machinery industry tangible fixed assets act as Collaterals to obtain Long Term Debt.

**Volatility** indicator COV of PBIT/TNA has significant positive impact on LTD/TA ratio of Machinery industry which is in line with the overall regression results of 140 sample FDI Companies together. This result indicates that inspite of volatile earnings; FDI Companies in Machinery industry continue to borrow Long Term funds. **Net exports/Sales** has significant negative impact on LTD/TA ratio of Machinery industry in all the reported regression runs and the 't' statistic is significant at 1% level of significance. These results indicate that companies from Machinery industry which are net exporters resort to lower levels of Long Term Debt in their Capital Structure due to tax concessions and other benefits available to them. **NDTS** indicator Depr/TGA has significant negative impact on LTD/TA ratio of Machinery industry and is significant at 1% level of significance indicating that existence of Non Debt Tax Shields would mean lower Long Term Debt ratios in Machinery industry. This result is consistent with findings of Kakani (1999)<sup>3</sup>, and Song (2005)<sup>4</sup>.

The impact of indicators for **Size, Growth rate, Age, Dividend Payout, Liquidity, Uniqueness, Cost of Debt, Debt Service Capacity and Cost of Equity** is found insignificant on LTD/TA ratio of companies in Machinery industry.

#### **6.3.4 Results of Multiple Regressions of TL/TA Ratio for Machinery industry**

The value of  $R^2$  is highest in Run 1<sup>b</sup>:Column-8 and indicates that a maximum of 61.4% variance in TL/TA ratio of Machinery industry is explained by significant indicators selected in Regression Run <sup>b</sup>: Column-8. The significant determinants of TL/TA ratio in Machinery industry are **Profitability, Collateral and Volatility**.

**Profitability** indicator PBT/TNA has significant negative impact on TL/TA ratio of Machinery industry and the 't' statistic is significant at 1% level of significance confirming the predictions of Pecking Order Theory.

The **Collateral** indicator  $(Nfa+Inv+AR)/TNA$  has significant positive impact on TL/TA ratio of machinery industry. Since Total Liabilities include a substantial proportion of Short Term Debt, it may be possible that Inventories and Accounts receivables act as Collaterals to obtain Short Term Debt while tangible fixed assets are used as Collaterals to obtain Long Term Debt and hence  $(Nfa+Inv+AR)/TNA$  is a significant determinant of TL/TA ratio of Machinery industry.

**Volatility** indicator COV of PBIT/TNA has significant positive impact on TL/TA ratio of Machinery industry and the findings are consistent with the overall regression results of 140 sample FDI Companies together.

The impact of indicators for **Size, Growth rate, Age, Dividend Payout, Liquidity, Net exports/Sales, Uniqueness and Cost of Debt** is found insignificant on TL/TA ratio of companies in Machinery industry.

Table No.6.2.1					
Summary of Mutiple Regressions Result in Machinery Industry (38 FDI Companies)					
Dependent variables- Debt Ratios		STD1/TA	TC&E/TA	LTD/TA	TL/TA
Independent Variables	Indicators				
Size	Log of sales	N.S	N.S	N.S	N.S
	Log of TNA	N.S	---	N.S	---
	Log of GTFA	---	N.S	N.S	---
Profitability	PBT/TNA	N.S	N.S	-VE*	-VE*
	PBITDA/TGA	---	-VE**	-VE**	---
Collateral	NFA/TNA	-VE**	-VE**	+VE**	---
	GFA/TGA	---	-VE**	+VE**	---
	(Nfa+Inv+AR)/TA	---	N.S	N.S	+VE**
	INV/TNA	N.S	N.S	---	N.S
Volatility	COV of PBIT/ TNA	+VE**	+VE**	+VE**	+VE**
	SD of PBITDA/TGA	---	+VE**	+VE**	---
Growth rate	CAGR of TNA	N.S	N.S	N.S	N.S
	CAGR of sales	N.S	N.S	N.S	---
NDTS	Depr/TGA	---	N.S	-VE**	---
Debt Service capacity	PBDIT/INT	---	N.S	N.S	---
Age	Log of age of firm	N.S	N.S	N.S	N.S
Dividend payout	Equity Div/PAT	N.S	N.S	N.S	N.S
Liquidity	CA/CL	-VE**	-VE**	N.S	N.S
Net Exports	Net exp/Sales	N.S	N.S	-VE**	N.S
Cost of Equity	DIV/SC	N.S	N.S	N.S	---
Uniqueness	R&D/Sales	N.S	N.S	N.S	N.S
Cost of Borrowing	INT/DEBT	N.S	N.S	N.S	N.S
* Indicates significance at 5% level, ** indicates significance at 1% level					
Not Significant=(NS), Positive=(+VE), Negative =(-VE)					
A Dash means -- the indicator is not included in final regression runs					

## 6.4 Results of Multiple Regression Runs: Transport Industry

Table 6.3 presents the results of multiple regression runs on Debt Ratios of Transport industry. Only significant regressions are reported in Table 6.3. The summary results of all the regression runs conducted on all the four Debt Ratios of Transport industry are presented at the end of the chapter. Table 6.3.4 presents summary results of all the regression runs on Debt Ratio: STD1/TA. Table 6.3.5 presents summary results of all the regression runs on Debt Ratio: TC&E/TA ratio. Table 6.3.6 presents summary results of all the regression runs on Debt Ratio: LTD/TA. Table 6.3.7 presents summary results of

all the regression runs on TL/TA ratio. Correlation matrix of explanatory variables of Debt Ratios from Transport industry is presented at the end of the chapter in Table 6.3.2. Variance inflationary factors for each reported multiple regression run of Transport industry are presented at the end of the chapter in Table 6.3.3.

#### 6.4.1 Results of Multiple Regressions of STD1/TA Ratio for Transport industry

Stepwise multiple regression results conducted on STD1/TA ratio of Transport industry did not indicate any significant determinants for the ratio as none of the selected indicators in regressions conducted on STD1/TA ratio entered the final stepwise regression models. Hence the results are not reported in Table 6.3.

#### 6.4.2 Results of Multiple Regressions on TC&E/TA Ratio in Transport industry

Regression Run 1: Column-1, Run 3: Column 2 and Run 9: Column 3 are conducted on TC&E/TA ratio of Transport industry in Table 6.3 reveal that the significant determinants of TC&E/TA ratio in Transport industry are **Collateral, Volatility, Dividend payout and Liquidity**. The value of  $R^2$  is highest in Run 9<sup>b</sup>: Column 3 and indicates that almost 95.3% variance in TC&E/TA ratio is explained by significant indicators selected in Regression Run 9<sup>b</sup>: Column 3. All the regression runs reported for TC&E/TA ratio of Transport industry reveal high explanatory power of the regression model as  $R^2$  ranges from .852 in Run1<sup>b</sup>: Column-1 to .953 in Run9<sup>b</sup>: Column 3.

**Collateral** indicator NFA/TNA has significant negative impact on TC&E/TA ratio whereas INV/TNA has significant positive impact on TC&E/TA ratio of Transport industry confirming that fixed assets act as collaterals to obtain Long Term Debt and non fixed assets like Inventories act as Collaterals to obtain Short Term Trade Credits. Surprisingly, **Volatility** indicator COV of PBIT/TNA has significant negative impact on TC&E/TA ratio of Transport industry, the 't' statistic being significant at 5% level of significance. Although this result is consistent with predictions of both Pecking Order Theory and the Trade-off Theory, it contradicts the overall regression results of 140 sample FDI Companies. It indicates that FDI Companies in Transport industry with volatile incomes prefer to lower their reliance on short term trade credits. This seems to be a unique feature of Transport industry and this might be due to the fact that companies from Transport industry either must be having sufficient liquidity to meet their short term financing requirements or might be using their built in internally generated funds to meet their working capital requirements.

Table 6.3								
Results of Multiple Regression of Transport Industry: 18 Companies								
Dependent Variable :TC&E/TA Ratio								
Column 1			Column 2			Column 3		
	Run 1 <sup>a</sup>	Run 1 <sup>b</sup>		Run3 <sup>a</sup>	Run3 <sup>b</sup>		Run9 <sup>a</sup>	Run 9 <sup>b</sup>
Intercept	0.561	0.492	Intercept	0.243	0.329	Intercept	0.498	0.443
Log of sales	0.005 (1.089) [0.318]	Excluded	Log of sales	-0.003 (-0.438) [0.677]	Excluded	Log of sales	0.003 (0.803) [0.467]	Excluded
PBT/TNA	-0.261 (-1.670) [0.146]	Excluded	PBT/TNA	0.318 (1.651) [0.150]	Excluded	PBT/TNA	0.000 (-0.001) [1.000]	Excluded
NFA/TNA	-0.271 (-4.666)** [0.003]	-0.182 (-3.201)** [0.006]	NFA/TNA	—	—	NFA/TNA	-0.222 (-3.643)** [.000]	-0.174 (-5.408)** [.000]
INV/TNA	—	—	INV/TNA	0.554 (2.490)* [0.047]	0.393 (3.531)** [0.003]	INV/TNA	0.289 (1.984) [0.118]	0.403 (5.630)** [.000]
COV of PBIT to TNA	-0.049 (-1.772) [0.127]	Excluded	COV of PBIT to TNA	-0.022 (-0.538) [0.610]	Excluded	COV of PBIT to TNA	-0.057 (-1.826) [0.142]	-0.036 (-2.235)* [.000]
CAGR of TNA	-0.010 (-0.045) [0.966]	Excluded	CAGR of TNA	0.050 [0.147] [0.888]	Excluded	CAGR of sales	-0.035 (-0.192) [0.857]	Excluded
Log of age of firm	0.023 (2.031) [0.089]	Excluded	Log of age of firm	-0.002 (-0.086) [0.935]	Excluded	Log of age of firm	0.015 1.509 0.206	Excluded
Equity Div/PAT	-0.051 (-2.114) [0.079]	-0.062 (-2.645)** [0.019]	Equity Div/PAT	0.004 (0.110) [0.916]	Excluded	Equity Div/PAT	-0.017 (-0.630) [0.563]	-0.033 (-2.320)* [0.039]
CA/CL	-0.073 (-9.180) [.000]	-0.067 (-9.663)** [.000]	CA/CL	-0.065 (-5.753)** [0.001]	-0.063 (-9.874)** [.000]	CA/CL	-0.076 (-10.407)** [.000]	-0.074 (-17.568)** [.000]
Net exp/Sales	(0.220) (2.935)* [0.026]	Excluded	Net exp/Sales	-0.113 (-0.780) [0.465]	Excluded	Net exp/Sales	0.121 (1.293) [0.266]	Excluded
R&D/Sales	(-3.200) (-3.480)** [0.013]	Excluded	R&D/Sales	-0.249 (-0.146) [0.888]	Excluded	R&D/Sales	-2.847 (-1.923) [0.127]	Excluded
INT/DEBT	-0.447 (-1.504) [0.183]	Excluded	INT/DEBT	0.317 (0.701) [0.510]	Excluded	INT/DEBT	-0.408 (-1.151) [0.314]	Excluded
DIV/SC	—	—	DIV/SC	—	—	DIV/SC	-0.304 (-0.955) [0.394]	Excluded
R <sup>2</sup>	0.969	0.878	R <sup>2</sup>	0.928	0.869	R <sup>2</sup>	0.987	0.967
Adjusted R <sup>2</sup>	0.911	0.852	Adjusted R <sup>2</sup>	0.797	0.852	Adjusted R <sup>2</sup>	0.946	0.953
F statistic	16.792** [.001]	33.588** [.000]	F statistic	7.072* [0.013]	49.923** [.000]	F statistic	23.859** [0.004]	69.383** [.000]
<sup>a</sup> Multiple Regression , <sup>b</sup> Stepwise Regression, * indicates significance at 5% level, ** indicates significance at 1% level , (t-statistics) , [p-value]								

Table 6.3 continued								
Results of Multiple Regression of Transport Industry: 18 Companies								
Dependent variable: LTD/TA Ratio								
Column 4			Column 5			Column 6		
	Run 1 <sup>a</sup>	Run 1 <sup>b</sup>		Run 2 <sup>a</sup>	Run 2 <sup>b</sup>		Run 4 <sup>a</sup>	Run 4 <sup>b</sup>
Intercept	0.194	0.015	Intercept	0.343	-0.230	Intercept	-0.305	-0.008
Log of sales	-0.001 (-0.046) [0.964]	Excluded	Log of TNA	0.005 (0.248) [0.813]	Excluded	Log of GTFA	0.008 (0.442) [0.677]	Excluded
PBT/TNA	-0.907 (-1.844) [0.115]	Excluded	PBT/TNA	-1.235 (-1.319) [0.235]	Excluded	PBITDA/TGA	-0.522 (-0.576) [0.589]	Excluded
NFA/TNA	0.459 (2.512)* [0.046]	0.560 (4.697)** [.000]	(Nfa+Inv+AR)/TNA	0.179 (0.563) [0.594]	0.495 (3.990)** [0.001]	GFA/TGA	0.640 [2.396]** [0.062]	0.448 (3.540)** [0.003]
COV of PBIT to TNA	0.016 (0.189) [0.857]	Excluded	COV of PBIT to TNA	-0.003 (-0.024) [0.981]	Excluded	SD of PBITDA	-2.043 (-1.160) [0.298]	Excluded
CAGR of TNA	0.614 (0.872) [0.417]	Excluded	CAGR of TNA	0.603 (0.558) [0.597]	Excluded	CAGR of sales	0.181 (0.292) [0.782]	Excluded
Log of age of firm	-0.035 (-0.974) [0.368]	Excluded	Log of age of firm	-0.037 (-0.631) [0.551]	Excluded	Log of age	-0.003 (-0.068) [0.949]	Excluded
Equity Div/PAT	-0.031 (-0.412) [0.695]	Excluded	Equity Div/PAT	-0.066 (-0.611) [0.564]	Excluded	Eq Div/PAT	0.232 (1.432) [0.212]	Excluded
CA/CL	0.023 (0.920) [0.393]	Excluded	CA/CL	0.001 (0.034) [0.974]	Excluded	CA/CL	0.010 (0.356) [0.736]	Excluded
Net exp/Sales	0.523 (2.225) [0.068]	0.470 (3.315)** [0.005]	Net exp/Sales	0.498 (1.087) [0.319]	Excluded	Net exp/Sales	0.594 (2.311) [0.069]	0.512 (3.078)** [0.008]
R&D/Sales	0.680 (0.235) [0.822]	Excluded	R&D/Sales	1.111 (0.230) [0.826]	Excluded	R&D/Sales	-9.024 (-1.533) [0.186]	Excluded
INT/DEBT	-0.324 (-0.346) [0.741]	Excluded	INT/DEBT	-0.689 (-0.470) [0.655]	Excluded	INT/DEBT	2.240 (1.369) [0.229]	Excluded
PBDIT/INT	—	—	PBDIT/INT	—	—	PBDIT/INT	0.001 (2.058) [0.095]	Excluded
R <sup>2</sup>	0.865	0.670	R <sup>2</sup>	0.737	0.499	R <sup>2</sup>	0.843	0.556
Adjusted R <sup>2</sup>	0.617	0.627	Adjusted R <sup>2</sup>	0.256	0.467	Adjusted R <sup>2</sup>	0.465	0.497
F statistic	3.495 [0.068]	15.258 [.000]	F statistic	1.532 [0.312]	15.922** [0.001]	F statistic	2.23 [0.193]	9.404** [0.002]
<sup>a</sup> Multiple Regression , <sup>b</sup> Stepwise Regression, * indicates significance at 5% level, ** indicates significance at 1% level , (t-statistics) , [p-value]								



Table 6.3 continued								
Results of Multiple Regression of Transport Industry: 18 Companies								
Dependent variable: TL/TA ratio								
Column 7			Column 8			Column 9		
	Run 1 <sup>a</sup>	Run 1 <sup>b</sup>		Run 2 <sup>a</sup>	Run 2 <sup>b</sup>		Run4 <sup>a</sup>	Run4 <sup>b</sup>
Intercept	0.954	0.099	Intercept	1.017	0.331	Intercept	1.299	0.804
Log of sales	-0.021 (-0.829) [0.439]	Excluded	Log of sales	-0.033 (-1.429) [0.203]	Excluded	Log of sales	-0.024 (-0.870) [0.424]	Excluded
PBT/TNA	-1.132 (-0.938) [0.385]	Excluded	PBT/TNA	-1.413 (-2.219) [0.068]	Excluded	PBT/TNA	-2.228 (-1.968) [0.106]	-1.154 (-2.524)* [0.023]
(Nfa+Inv+AR)/TNA	0.225 (0.548) [0.604]	0.573 (3.383)** [0.004]	INV/TNA	1.107 (1.505) [0.183]	1.281 (2.780)* [0.013]	NFA/TNA	-0.111 (-0.304) [0.774]	Excluded
COV of PBIT to TNA	-0.024 (-0.143) [0.891]	Excluded	COV of PBIT to TNA	-0.056 (-0.415) [0.693]	Excluded	COV of PBIT to TNA	-0.043 (-0.241) [0.819]	Excluded
CAGR of TNA	0.690 (0.530) [0.615]	Excluded	CAGR of TNA	1.182 (1.045) [0.336]	Excluded	CAGR of TNA	0.876 (0.637) [0.552]	Excluded
Log of age of firm	-0.050 (-0.657) [0.536]	Excluded	Log of age of firm	-0.060 (-0.992) [0.359]	Excluded	Log of age of firm	-0.028 (-0.395) [0.709]	Excluded
Equity Div/PAT	-0.141 (-1.011) [0.351]	Excluded	Equity Div/PAT	-0.105 (-0.851) [0.427]	Excluded	Equity Div/PAT	-0.239 (-1.234) [0.272]	-0.198 (-2.278)* [0.038]
CA/CL	-0.041 (-0.981) [0.364]	Excluded	CA/CL	-0.062 (-1.653) [0.149]	Excluded	CA/CL	-0.051 (-1.018) [0.355]	Excluded
Net exp/Sales	0.416 (0.697) [0.512]	Excluded	Net exp/Sales	0.174 (0.363) [0.729]	Excluded	Net exp/Sales	0.570 (1.077) [0.331]	Excluded
R&D/Sales	1.330 (0.215) [0.837]	Excluded	R&D/Sales	4.473 (0.795) [0.457]	Excluded	R&D/Sales	2.291 (0.279) [0.792]	Excluded
INT/DEBT	-0.173 (-0.092) [0.929]	Excluded	INT/DEBT	0.040 (0.027) [0.980]	Excluded	INT/DEBT	-0.415 (-0.201) [0.849]	Excluded
DIV/SC	—	—	DIV/SC	—	—	DIV/SC	1.038 (0.510) [0.632]	Excluded
R <sup>2</sup>	0.722	0.417	R <sup>2</sup>	0.788	0.326	R <sup>2</sup>	0.731	0.458
Adjusted R <sup>2</sup>	0.211	0.381	Adjusted R <sup>2</sup>	0.399	0.284	Adjusted R <sup>2</sup>	0.087	0.386
F statistic	1.414 [0.349]	11.447** [0.004]	F statistic	2.025 [0.200]	7.729 [0.013]	F statistic	1.134 [0.478]	6.338** [0.010]
<sup>a</sup> Multiple Regression, <sup>b</sup> Stepwise Regression, * indicates significance at 5% level, ** indicates significance at 1% level, (t-statistics), [p-value]								

**Liquidity** as measured by CA/CL ratio in Transport industry has significant negative impact on TC&E/TA ratio indicating that greater liquid assets mean lower reliance on Trade Credits.

**Dividend Payout** indicator- Equity Div / PAT has significant negative impact on TC&E/TA ratio of Transport industry and the 't' statistic is significant at 1% level of significance. This result is different from the results obtained in Chemical industry where a positive impact of Dividend Payout is observed in TC&E/TA ratio. This indicates that in Transport industry as the Dividend Payout increases, the companies lower their preference for Short Term Trade Credit. This is an important finding, unique only to Transport industry but this confirms the fact that Transport FDI Companies do have built in cash reserves which they use when there are volatile profits or high Dividend Payouts and do not resort to Short Term Trade Credit under these circumstances.

The impact of indicators for **Size, Profitability, and Growth rate, Age, Net Exports/Sales, Uniqueness, Cost of Debt and Cost of Equity** is found insignificant on TC&E/TA ratio of companies in Transport industry.

#### **6.4.3 Results of Multiple Regressions of LTD/TA Ratio for Transport industry**

Out of the three regression runs reported in Table 6.3 on LTD/TA ratio of Transport industry, the value of  $R^2$  is highest in Run 1<sup>b</sup>: Column 4 and indicates that a maximum of 62.7% variations in LTD/TA ratio of Transport industry are explained by significant indicators selected in regression Run 1<sup>b</sup>: Column 4. The significant determinants of LTD/TA ratio in Transport industry are **Collateral effect and Net Exports/ Sales**.

All the three indicators of **Collateral effect** – NFA/TNA, GFA/TGA and  $(Nfa+Inv+AR) / TNA$  have significant positive impact on LTD/TA ratio; the 't' statistic is significant at 1% level of significance confirming that in Transport industry existence of collaterals like fixed assets support more long term debt. Net Exports/Sales has significant positive impact on LTD/TA ratio for Transport industry and the 't' statistic is significant at 1% level of significance. This result contradicts the overall regression results of 140 sample FDI Companies where Net Exports/Sales had a significant negative impact on LTD/TA ratio of 140 Sample companies. The correlation matrix presented in Table 6.3.2 of selected explanatory variables for Debt Ratios indicate that

Net Exports/Sales ratio is highly correlated with Profitability indicators and the association is positive. This means that net exporter companies from Transport industry are also profitable companies who do not hesitate to borrow long term even though they have created enough reserves in the form of retained profits. At the same time, it is important to note that although Profitability indicator PBT/TNA and PBITDA/TGA do not enter the stepwise regression model as significant predictor of LTD/TA, the coefficient has negative sign in all regression runs. This indicates that Transport FDI Companies borrow more from long term sources when they are engaged in exports and although they must be getting tax concessions and other benefits, to meet export requirement, these companies must be requiring funds which are borrowed from long term sources.

The impact of indicators for **Size, Profitability, Growth rate, Age, Dividend Payout, Liquidity, Uniqueness, Cost of Debt and Debt Service Capacity** is found insignificant on LTD/TA ratio of companies in Transport industry.

#### **6.4.4 Results of Multiple Regressions on TL/TA Ratio of Transport industry**

The multiple regression runs conducted on TL/TA ratio resulted in lower  $R^2$  as compared to regression runs on TC&E/TA and LTD/TA. The maximum value of  $R^2$  is obtained in highest in Run 4<sup>b</sup>: Column-9 and indicates that a maximum of 38.6% variations in TL/TA ratio are explained by significant indicators selected in Regression Run 4<sup>b</sup>: Column 9. The significant determinants of TL/TA ratio in Transport industry are **Profitability, Collateral effect, and Dividend Payout**.

**Profitability** indicator PBT / TNA has significant negative impact on TL/TA ratio of Transport industry and the 't' statistic is significant at 5% level of significance. **Collateral indicator** (Nfa+Inv+AR)/TNA and INV/TNA have significant positive impact on TL/TA ratio. Since Total Liabilities include a substantial proportion of Short Term Debt, Inventories and Accounts Receivables act as Collaterals to obtain Short Term Debt in Transport Industry while tangible fixed assets might be being used to obtain long term finance and hence the positive association. **Dividend Payout** indicator Equity Div/PAT has significant negative impact on TL/TA ratio of Transport industry which means that FDI Companies from Transport industry generally lower their preference for debt when Dividend Payout increases. The impact of indicators for

Size, Volatility, Growth rate, Age, Liquidity, Net exports/Sales, Uniqueness and Cost of Debt is found insignificant on TL/TA ratio of companies in Transport industry.

Table 6.3.1				
Results of Mutiple Regressions in Transport Industry (18 FDI Companies)				
Dependent variables- Debt Ratios		TC&E/TA	LTD/TA	TL/TA
Independent Variables	Indicators			
Size	Log of sales	N.S	N.S	N.S
	Log of TNA	---	---	---
	Log of GTFA	---	---	---
Profitability	PBT/TNA	N.S	N.S	-VE**
	PBITDA/TGA	---	---	---
Collateral	NFA/TNA	-VE**	+VE**	N.S
	GFA/TGA	---	+VE**	---
	(Nfa+Inv+AR)/TA	---	+VE**	+VE**
	INV/TNA	+VE**	---	+VE**
Volatility	COV of PBIT/ TNA	-VE*	N.S	N.S
	SD of PBITDA/TGA	---	---	---
Growth rate	CAGR of TNA	N.S	N.S	N.S
	CAGR of sales	N.S	N.S	---
NDTS	Depr/TGA	---	---	---
Debt Service capacity	PBDIT/INT	---	N.S	---
Age	Log of age of firm	N.S	N.S	N.S
Dividend payout	Equity Div/PAT	-VE**	N.S	
Liquidity	CA/CL	-VE**	N.S	-VE*
Net Exports	Net exp/Sales	N.S	+VE**	N.S
Cost of Equity	DIV/SC	N.S	---	N.S
Uniqueness	R&D/Sales	N.S	N.S	N.S
Cost of Borrowing	INT/DEBT	N.S	N.S	N.S
* Indicates significance at 5% level, ** indicates significance at 1% level				
Not Significant=(NS), Positive= (+VE), Negative =(-VE)				
A Dash means -- the indicator is not included in final regression runs				

## 6.5 Conclusion: Industry-Wise Multiple Regressions

Frank & Goyal (2004)<sup>5</sup> had divided their sample firms into several classes – dividend paying verses non-dividend paying, mature firms verses young firms, small firms verses large firms and so on as they had put forth the apprehension that fitting a single model to companies in different situations would generate unstable results due to aggregation process. Keeping this viewpoint and to take care of this concern, in this study the

sample of 140 FDI companies in India is divided into various industry groups and three major industry groups – Chemicals, Machinery and Transport industry are selected to examine whether there exists any variation in Determinants of Capital Structure, if sample FDI Companies are divided on the basis of their affiliation to a particular industry.

Industry-Wise Multiple Regression Results, Industry-Wise Correlation Matrix, Variance Inflationary Factors for each reported multiple regression run of each industry and the summary of results of all the regression runs conducted on each selected measure of debt of each industry are presented in the chapter. The main conclusions derived from the results of multiple regressions conducted between various independent variables with each Debt Ratio (dependent variable) of the selected industry groups are as follows:

1. At Industry-wise analysis of Determinants of Capital Structure, the study rejects the null hypotheses that there is no significant impact of Size of a company, Profitability of a company, Collateral value of assets, Volatility of companies' earnings, existence of Non Debt Tax Shields, Age of a company, Dividend Payout, Liquidity, Net Exports, Cost of Borrowings, Cost of Equity and Uniqueness of a company on a company's Debt Ratios. The study accepts the alternative hypotheses that all the above mentioned determinants have significant impact on Debt Ratios of FDI Companies from three major industry groups – Chemical, Machinery and Transport industry.
2. At Industry-wise analysis of Determinants of Capital Structure, the study accepts the null hypotheses that there is no significant impact of Growth rate of a company and Debt Service Capacity of a company on Debt Ratios as these determinants were not a significant predictor in multiple regressions conducted on various Debt Ratios of the selected industry groups.
3. It is observed that although most of the Determinants of Capital Structure have consistently the same impact on the Debt Ratios even in industry wise classification as they had on the overall sample, some determinants which did not seem to have impact on overall sample become significant when companies are categorized into various industries.

4. In Chemical industry, the highest  $R^2$  of .708 is found in multiple regressions on LTD/TA ratio indicating that **70.8% variations in LTD/TA ratio** are explained by significant indicators selected in Run 2: Column-6, Table 6.1. In case of Machinery industry, the highest  $R^2$  of .840 is found in multiple regressions on TC&E/TA ratio indicating that **84% variations in TC&E/TA ratio** are explained by significant indicators selected in Run 7: Column-3, Table 6.2. In case of Transport industry, highest  $R^2$  of .953 is found in multiple regressions on TC&E/TA ratio indicating that **95.3% variations in TC&E/TA ratio** are explained by significant indicators selected in Run 9: Column-3.
5. **Size** as measured by Log of sales has positive impact on TC&E/TA ratio of Chemical industry only. The results indicate that in Chemical industry large Size firms in terms of greater sales mean greater reliance on Trade Credits. Increase in sales means increased manufacturing activity which increases the need of short term working capital requirements and leads to greater reliance on Trade Credits. For other two industries, it is not a significant predictor.
6. **Profitability** indicator has consistently the same negative sign in all the regression runs of all the three industries confirming that even industry-wise classification proves that FDI Companies do follow Pecking Order Theory.
7. **Collateral** indicators measured in terms of fixed assets like NFA/TNA and GFA/TGA has significant negative impact on Short Term Debt Ratios in all the three industries and at the same time these indicators have positive impact on Long Term Debt Ratios in all the three industries. **Collateral** indicator INV/TNA has significant positive impact on Transport industry only and Collateral indicator Nfa+Inv+AR/TNA has significant positive impact on LTD/TA ratio of Transport industry and on TL/TA ratio of Machinery and Transport industry. These results are in confirmation with the results obtained with respect to overall sample of 140 FDI Companies. The results indicate that Collaterals in the form of tangible fixed assets support Long Term Debt in all the industries. Inventories and Accounts receivables support more of Short Term Debt.
8. **Volatility** of earnings has significant positive impact on the debt ratios except in case of Transport industry where the indicator of **Volatility** has negative

impact on TC&E/TA ratio. This shows that FDI Companies from Transport industry adopt a conservative approach when there are volatile earnings.

9. **Growth rate** has no significant impact on any Debt Ratios, in any of the industries.
10. **Non Debt Tax Shields** have significant negative impact on Long Term Debt ratio of Machinery industry only indicating that in case of Machinery industry, greater tax shields would mean lower debt levels in the industry.
11. **Debt Service Capacity** has no significant impact on any Debt Ratio in any of the industries.
12. **Age** has significant positive impact on TC&E/TA ratio of Chemical industry and significant negative impact LTD/TA ratio of Chemical industry only although its coefficient entered in all regression models in other industries with same sign as indicated in overall regression results. The results indicate that in case of chemical industry mature FDI Companies tend to borrow more from trade credits and equivalents and prefer to keep their Long Term Debt levels low.
13. Even when the **Dividend Payout** is high, Transport industry and Chemical industry provide variations in results. In Transport industry Dividend Payout has significant negative impact on TC&E/TA ratio whereas in Chemical industry, Dividend payout has significant positive impact on TC&E/TA ratio. This indicates that Chemical industry FDI Companies borrow more of Short Term Trade Credit when Dividend Payout is high.
14. **Liquidity** has consistently the same negative impact on Short Term Debt ratios in all the three industries. Liquidity has no significant impact on Long Term Debt ratios. The results indicate that greater the liquidity, lower will be the Short Term Debt ratios in each industry.
15. **Net Exports** have significant negative impact on Long Term Debt Ratio of Chemical and Machinery industry but has a significant positive impact on Transport industry. Generally net exporters avail lot of tax concessions and other benefits from the government, hence the incentive to obtain Long Term

Debt for its benefit of tax deductibility is not there. Hence, net exporters in Chemical and Machinery industry have a significant negative impact on Long Term Debt Ratio. At the same time, Net Exports has significant positive impact on LTD/TA ratio of Transport industry which indicates that it is a unique feature peculiar to this particular industry. It might be possible that those companies who are net exporters in Transport industry require huge investments in assets and hence need more funds to finance these assets, which they borrow from long term sources.

16. **Cost of Borrowing** has significant negative impact on Long Term Debt Ratio of Chemical industry only, indicating that in Chemical industry, as the Cost of Borrowings rise, companies prefer to borrow less from Long Term Debt funds. Cost of Borrowing has insignificant impact on Short Term and Total Debt ratios of all the three industries.
17. **Uniqueness** have significant negative impact on Long Term Debt ratio of Chemical industry only indicating that unique FDI Companies in Chemical industry would borrow less from Long Term Debt sources. It might also be possible that these unique firms might be facing difficulty in borrowing from Long Term Debt sources.

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Table 6.1.2 (page 1)												
Pearsons Correlations Matrix of Explanatory Variables for Debt ratios (Chemicals Industry:37 Companies)												
Variables	Log of sales	Log of GTFA	Log of TNA	PBITDA/TGA	PBIT/TNA	NFA/TNA	GFA/TGA	(Nfa+Inv+AR)/TNA	INV/TNA	SD of PBITDA/TGA	COV of PBIT/TNA	
Log of sales	1											
Log of GTFA	.865(**)	1										
Log of TNA	.969(**)	.928(**)	1									
PBITDA/TGA	.413(*)	.183	.341(*)	1								
PBIT/TNA	.446(**)	.0207	.377(*)	.979(**)	1							
NFA/TNA	-.384(*)	.0068	-.0269	-.399(*)	-.464(**)	1						
GFA/TGA	-.385(*)	.0072	-.0287	-.442(**)	-.496(**)	.967(**)	1					
(Nfa+Inv+AR)/TNA	-.379(*)	-.024	-.391(*)	-.662(**)	-.712(**)	.413(*)	.427(**)	1				
INV/TNA	.333(*)	-.0024	.0241	.0301	.0323	-.666(**)	-.712(**)	-.0078	1			
SD of PBITDA/TGA	-.0148	-.0307	-.0206	.0236	.028	-.0152	-.0186	-.432(**)	-.006	1		
COV of PBIT/TNA	-.459(**)	-.376(*)	-.439(**)	-.594(**)	-.541(**)	.0207	.0217	.0202	-.0208	.539(**)	1	
CAGR of TNA	.0128	.0181	.0253	.0155	.0144	-.0088	-.0191	-.0232	.0214	-.0243	-.333(*)	
CAGR of sales	-.0006	.0086	.0051	-.0045	-.0113	.0133	.0047	.0185	.0094	-.423(**)	-.0315	
Depr/TGA	-.0178	.0102	-.0152	-.0077	-.0157	.596(**)	.689(**)	.003	-.591(**)	-.0112	-.011	
PBDIT/INT	.0123	.0014	.0109	.327(*)	.339(*)	-.0161	-.0165	-.332(*)	.0075	.0204	-.0135	
Log of age	.571(**)	.370(*)	.517(**)	.0165	.027	-.521(**)	-.485(**)	-.0263	.418(**)	.0033	-.0117	
Eq Div/PAT	.387(*)	.0196	.0316	.394(*)	.405(*)	-.462(**)	-.419(**)	-.431(**)	.0176	.0052	-.331(*)	
CA/CL	-.366(*)	-.0213	-.0269	-.0134	-.0055	.018	.0158	-.0162	-.0191	.0207	.335(*)	
Net exp/Sales	-.334(*)	-.0173	-.0272	-.0119	-.0059	.0236	.024	-.0118	-.0217	.0268	.414(*)	
DIV/SC	.561(**)	.388(*)	.496(**)	.758(**)	.765(**)	-.031	-.353(*)	-.558(**)	.0184	.0205	-.426(**)	
R&D/Sales	.0046	.0004	.0081	.0125	.0168	-.02	-.0191	-.0184	-.0045	-.0099	-.0275	
INT/DEBT	.0021	-.0179	-.0023	.0227	.0231	-.428(**)	-.442(**)	-.0064	.506(**)	-.0074	-.0211	
*Correlation is significant at the 0.05 level (2-tailed).												
**Correlation is significant at the 0.01 level (2-tailed).												

Table 6.1.2 Continued: ( page 2)

Pearsons Correlations Matrix of Explanatory Variables for Debt ratios (Chemicals Industry:37 Companies)											
Variables	CAGR of TNA	CAGR of sales	Depr/TGA	PBDIT/INT	Log of age	Eq Div/PAT	CA/CL	Net exp/Sales	DIV/SC	R&D/Sales	INT/DEBT
Log of sales											
Log of GTFA											
Log of TNA											
PBITDA/TGA											
PBT/TNA											
NFA/TNA											
GFA/TGA											
(Nfa+Inv+AR)/TNA											
Inv/TNA											
SD of PBITDA/TGA											
COV of PBIT/TNA											
CAGR of TNA	1										
CAGR of sales	.723(**)	1									
Depr/TGA	-0.117	0.022	1								
PBDIT/INT	0.107	-0.149	-0.023	1							
Log of age	-0.028	-0.272	-.353(*)	0.111	1						
Eq Div/PAT	0.179	0.07	-0.023	0.144	0.075	1					
CA/CL	0.069	-0.117	-0.027	-0.055	-0.055	-0.175	1				
Net exp/Sales	0.009	0.006	0.043	-0.041	-0.019	-0.123	.651(**)	1			
DIV/SC	0.059	0.006	-0.149	0.186	0.257	.439(**)	-0.299	-0.137	1		
R&D/Sales	0.272	0.085	-0.118	.382(*)	0.042	0.064	-0.025	0.02	-0.073	1	
INT/DEBT	0.11	-0.009	-.336(*)	0.085	0.079	0.113	-0.216	-0.268	0.126	-0.052	1
*Correlation is significant at the 0.05 level (2-tailed).											
**Correlation is significant at the 0.01 level (2-tailed).											

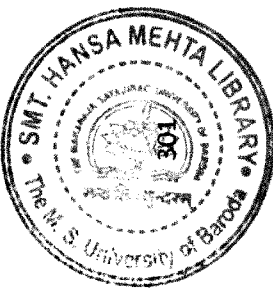


Table 6.1.3													
Variance Inflationary Factors of Stepwise Multiple Regressions of Chemical Industry (37 FDI Companies )													
STD1/TA ratio		TC&E/TA ratio			LTD/TA ratio			TL/TA ratio					
Variables	Run2 <sup>b</sup>	Variables	Run 1 <sup>b</sup>	Run 2 <sup>b</sup>	Run5 <sup>b</sup>	Variables	Run 1 <sup>b</sup>	Run2 <sup>b</sup>	Run4 <sup>b</sup>	Run5 <sup>b</sup>	Variables	Run 1 <sup>b</sup>	Run 4 <sup>b</sup>
Log of sales	-----	Log of sales	1.642	-----	-----	Log of sales	-----	-----	-----	-----	Log of sales	-----	-----
Log of GTFA	-----	Log of GTFA	-----	-----	-----	Log of GTFA	-----	-----	-----	-----	Log of GTFA	-----	-----
Log of TNA	-----	Log of TNA	-----	-----	-----	Log of TNA	-----	-----	-----	-----	Log of TNA	-----	-----
PBITDA/TGA	-----	PBITDA/TGA	-----	-----	-----	PBITDA/TGA	-----	-----	1.243	-----	PBITDA/TGA	-----	-----
PBT/TNA	-----	PBT/TNA	-----	-----	-----	PBT/TNA	1.279	1.375	-----	-----	PBT/TNA	1.003	2.627
NFA/TNA	1.033	NFA/TNA	1.491	-----	-----	NFA/TNA	1.350	-----	-----	1.076	NFA/TNA	-----	-----
GFA/TGA	-----	GFA/TGA	-----	-----	1.026	GFA/TGA	-----	-----	1.3	-----	GFA/TGA	-----	-----
(Nfa+Inv+AR)/TNA	-----	(Nfa+Inv+AR)/TNA	-----	-----	-----	(Nfa+Inv+AR)/TNA	-----	-----	-----	-----	(Nfa+Inv+AR)/TNA	-----	-----
INV/TNA	-----	INV/TNA	-----	-----	-----	INV/TNA	-----	-----	-----	-----	INV/TNA	-----	-----
SD of PBITDA	-----	SD of PBITDA	-----	-----	-----	SD of PBITDA	-----	-----	-----	-----	SD of PBITDA	-----	-----
COV of PBIT/TNA	-----	COV of PBIT/TNA	1.377	-----	-----	COV of PBIT/TNA	-----	-----	-----	1.225	COV of PBIT/TNA	-----	-----
CAGR of TNA	-----	CAGR of TNA	-----	-----	-----	CAGR of TNA	-----	-----	-----	-----	CAGR of TNA	-----	-----
CAGR of sales	-----	CAGR of sales	-----	-----	-----	CAGR of sales	-----	-----	-----	-----	CAGR of sales	-----	-----
Depr/TGA	-----	Depr/TGA	-----	-----	-----	Depr/TGA	-----	-----	-----	-----	Depr/TGA	-----	-----
PBDIT/INT	-----	PBDIT/INT	-----	-----	-----	PBDIT/INT	-----	-----	-----	-----	PBDIT/INT	-----	-----
Log of age	-----	Log of age	1.008	-----	-----	Log of age	-----	1.080	-----	-----	Log of age	-----	-----
Eq Div/PAT	-----	Eq Div/PAT	1.036	-----	-----	Eq Div/PAT	-----	1.213	-----	-----	Eq Div/PAT	-----	-----
CA/CL	1.033	CA/CL	1.251	1.033	1.026	CA/CL	-----	-----	-----	-----	CA/CL	1.003	1.194
Net exp/Sales	-----	Net exp/Sales	-----	-----	-----	Net exp/Sales	1.063	1.09	1.061	1.242	Net exp/Sales	-----	-----
DIV/SC	-----	DIV/SC	-----	-----	-----	DIV/SC	-----	-----	-----	-----	DIV/SC	-----	2.876
R&D/Sales	-----	R&D/Sales	-----	-----	-----	R&D/Sales	-----	1.038	-----	-----	R&D/Sales	-----	-----
INT/DEBT	-----	INT/DEBT	1.385	-----	-----	INT/DEBT	-----	-----	-----	-----	INT/DEBT	-----	-----

Table 6.1.4					
Final Regression runs on Debt ratio:STD1/TA of Chemicals Industry [Stepwise Regression results]					
Run1	Run2	Run3	Run4	Run5	Run6
Log of sales	Log of sales	Log of sales	Log of sales	Log of TNA	Log of TNA
-----	PBT/TNA	-----	PBT/TNA	PBT/TNA	PBT/TNA
NFA/TNA(-)	NFA/TNA(-)	NFA/TNA(-)	NFA/TNA(-)	NFA/TNA(-)	NFA/TNA(-)
-----	-----	INV/TNA	-----	INV/TNA	INV/TNA
COV PBIT/TNA	COV PBIT/TNA	COV PBIT/TNA	COV PBIT/TNA	COV PBIT/TNA	COV PBIT/TNA
CAGR of TNA	CAGR of TNA	CAGR of sales	CAGR of TNA	CAGR of TNA	CAGR of sales
Log of age	Log of age	Log of age	Log of age	Log of age	Log of age
Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT
CA/CL(-)	CA/CL(-)	CA/CL(-)	CA/CL(-)	CA/CL(-)	CA/CL(-)
Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales
R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales
INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT
DIV/SC	-----	DIV/SC	DIV/SC	DIV/SC	DIV/SC
R sq =.610	R sq =.610	R sq =.610	R sq =.610	R sq =.610	R sq =.610
Adj R sq=.587	Adj R sq=.587	Adj R sq=.587	Adj R sq=.587	Adj R sq=.587	Adj R sq=.587

Table 6.1.5								
Final Regression runs on Debt ratio:TC&E/TA of Chemicals Industry [Stepwise Regression results]								
Run1	Run2	Run3	Run4	Run5	Run6	Run7	Run8	Run9
Log of sales(+)	Log of sales	Log of sales	Log of TNA	Log of GTFA	Log of sales(+)	Log of GTFA	Log of sales(+)	Log of sales(+)
PBT/TNA	PBT/TNA	PBT/TNA	PBT/TNA	PBITDA/TGA	-----	PBITDA/TGA	PBT/TNA	PBT/TNA
NFA/TNA(-)	(Nfa+Inv+AR)/TNA	-----	NFA/TNA(-)	GFA/TGA(+)	NFA/TNA(-)	GFA/TGA(-)	NFA/TNA(-)	NFA/TNA(-)
COV PBIT/TNA(+)	COV PBIT/TNA	COV PBIT/TNA	COV PBIT/TNA	SD of PBITDA/TGA	COV PBIT/TNA(+)	SD of PBITDA/TGA	COV PBIT/TNA(+)	COV PBIT/TNA(+)
CAGR of TNA	CAGR of TNA	CAGR of TNA	CAGR of TNA	CAGR of sales	CAGR of TNA	CAGR of sales	CAGR of TNA	CAGR of sales
Log of age	Log of age(+)	Log of age(+)	Log of age	Log of age	Log of age	Log of age	Log of age	Log of age
Eq Div/PAT	Eq Div/PAT(+)	Eq Div/PAT(+)	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT
CA/CL(-)	CA/CL(-)	CA/CL(-)	CA/CL(-)	CA/CL(-)	CA/CL(-)	CA/CL(-)	CA/CL(-)	CA/CL(-)
Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales
R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales
INT/DEBT(+)	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT(+)	INT/DEBT	INT/DEBT(+)	INT/DEBT(+)
-----	-----	-----	-----	-----	DIV/SC	DIV/SC	DIV/SC	DIV/SC
-----	-----	-----	-----	-----	-----	Depr/TGA	-----	-----
-----	-----	-----	-----	PBDIT/INT	-----	PBDIT/INT	-----	-----
-----	-----	INV/TNA	-----	-----	-----	-----	-----	INV/TNA
R sq= .747	R sq =.623	R sq =.623	R sq= .580	R sq =.596	R sq= .747	R sq =.596	R sq= .747	R sq= .747
Adj R sq= .706	Adj R sq= .589	Adj R sq= .589	Adj R sq= .556	Adj R sq=.572	Adj R sq= .706	Adj R sq=.572	Adj R sq= .706	Adj R sq= .706



Table 6.1.6					
Final Regression runs on Debt ratio: LTD/TA of Chemical Industry [Stepwise Regression results]					
Run1	Run2	Run3	Run4	Run5	Run6
Log of sales	Log of TNA	Log of TNA	Log of GTFA	Log of TNA	Log of GTFA
PBT/TNA(-)	PBT/TNA(-)	PBT/TNA(-)	PBITDA/TGA(-)	-----	PBITDA/TGA(-)
NFA/TNA(+)	(Nfa+Inv+AR)/TNA	NFA/TNA(+)	GFA/TGA(+)	NFA/TNA(+)	GFA/TGA(+)
COV PBIT/TNA	COV PBIT/TNA	COV PBIT/TNA	SD of PBITDA/TGA	COV PBIT/TNA(+)	SD of PBITDA/TGA
CAGR of TNA	CAGR of TNA	CAGR of sales	CAGR of sales	CAGR of TNA	CAGR of sales
Log of age	Log of age (-)	Log of age	Log of age	Log of age	Log of age
Eq Div/PAT	Eq Div/PAT(-)	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT
CA/CL	CA/CL	CA/CL	CA/CL	CA/CL	CA/CL
Net exp/Sales(-)	Net exp/Sales(-)	Net exp/Sales(-)	Net exp/Sales(-)	Net exp/Sales(-)	Net exp/Sales(-)
R&D/Sales	R&D/Sales(-)	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales
INT/DEBT	INT/DEBT(-)	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT
-----	-----	-----	-----	DIV/SC	DIV/SC
-----	-----	-----	-----	-----	Depr/TGA
-----	-----	-----	PBDIT/INT	-----	PBDIT/INT
R sq= .705	R sq= .757	R sq= .705	R sq=.596	R sq= .676	R sq=.596
Adj R Sq = .679	Adj R Sq = .708	Adj R Sq = .679	Adj R Sq = .560	Adj R Sq = .560	Adj R Sq = .560

Table 6.1.7					
Final Regression runs on Debt ratio:TL/TA of Chemicals Industry [Stepwise Regression results]					
Run1	Run2	Run3	Run4	Run5	Run6
Log of sales	Log of sales	Log of sales	Log of sales	Log of sales	Log of sales
PBT/TNA(-)	PBT/TNA(-)	PBT/TNA(-)	PBT/TNA(-)	PBT/TNA(-)	PBT/TNA(-)
(Nfa+Inv+AR)/TNA	INV/TNA	INV/TNA	NFA/TNA	(Nfa+Inv+AR)/TNA	INV/TNA
COV PBIT/TNA	COV PBIT/TNA	COV PBIT/TNA	COV PBIT/TNA	COV PBIT/TNA	COV PBIT/TNA
CAGR of TNA	CAGR of TNA	CAGR of sales	CAGR of TNA	CAGR of TNA	CAGR of TNA
Log of age	Log of age	Log of age	Log of age	Log of age	Log of age
Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT
CA/CL(-)	CA/CL(-)	CA/CL(-)	CA/CL(-)	CA/CL(-)	CA/CL(-)
Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales
R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales
INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT
-----	-----	-----	DIV/SC(+)	DIV/SC(+)	DIV/SC(+)
R sq =.607	R sq =.607	R sq =.607	R sq =.672	R sq =.672	R sq =.672
Adj R sq=.584	Adj R sq=.584	Adj R sq=.584	Adj R sq=.642	Adj R sq=.642	Adj R sq=.642

Table No. 6.2.2 (page 1)											
Pearsons Correlations Matrix of explanatory Variables for debt ratios (Machinery Industry: 38 Companies)											
Variables	Log of sales	Log of GTFA	Log of TNA	PBITDA/TGA	PBT/TNA	INFA/TNA	GFA/TGA	(Nfa+Inv+AR)/TNA	INV/TNA	SD of PBITDA/TGA	COV of PBIT/TNA
Log of sales	1										
Log of GTFA	.921(**)	1									
Log of TNA	.983(**)	.930(**)	1								
PBITDA/TGA	0.079	0.073	0.129	1							
PBT/TNA	0.079	0.077	0.134	.946(**)	1						
NFA/TNA	-0.043	0.283	-0.052	-0.034	-0.092	1					
GFA/TGA	-0.117	0.234	-0.129	-0.124	-0.134	.950(**)	1				
(Nfa+Inv+AR)/TNA	0.295	0.251	0.239	-0.268	-.448(**)	0.004	-0.013	1			
INV/TNA	0.147	0.14	0.129	-0.231	-.335(*)	-0.096	-0.039	.513(**)	1		
SD of PBITDA/TGA	-0.128	-0.261	-0.172	-0.219	-.325(*)	-0.181	-0.191	0.074	.359(*)	1	
COV of PBIT/TNA	-0.003	-0.059	-0.052	-.598(**)	-.647(**)	0	0.008	0.156	.328(*)	.742(**)	1
CAGR of TNA	0.284	0.235	.354(*)	.583(**)	.565(**)	-0.114	-0.252	-0.154	-.495(**)	-.385(*)	-.460(**)
CAGR of sales	0.249	0.179	0.259	.374(*)	.361(*)	-0.023	-0.148	-0.025	-.513(**)	-.324(*)	-.347(*)
Depr/TGA	-0.146	0.121	-0.17	-0.031	0.013	.701(**)	.762(**)	-0.115	-0.246	-.401(*)	-0.163
PBDIT/INT	0.066	0.062	0.095	.510(**)	.561(**)	0.024	-0.017	-.381(*)	-.470(**)	-0.169	-0.282
Log of age	.521(**)	.505(**)	.554(**)	0.185	0.234	-0.182	-0.138	0.198	0.293	-0.087	-0.051
Eq Div/PAT	0.116	0.154	0.112	.368(*)	.399(*)	0.242	0.161	-0.15	-0.18	-0.14	-.385(*)
CA/CL	-.392(*)	-0.236	-.321(*)	.367(*)	.413(**)	0.12	0.206	-.365(*)	-0.308	-0.194	-0.267
Net exp/Sales	0.148	0.212	0.182	0.093	0.207	0.134	0.184	-0.3	-0.077	0.164	0.123
DIV/SC	0.074	0.06	0.115	.651(**)	.689(**)	-0.04	-0.128	-.501(**)	-.331(*)	-0.047	-.367(*)
R&D/Sales	0.271	0.165	0.293	0.055	0.128	-0.214	-0.25	-0.063	-0.166	-0.105	-0.007
INT/DEBT	0.293	0.152	0.254	-0.089	-0.09	-0.268	-0.269	0.075	0.138	0.192	0.041
*Correlation is significant at the 0.05 level (2-tailed).											
**Correlation is significant at the 0.01 level (2-tailed).											

Table No. 6.2.2 Continued: (page 2)										
Pearsons Correlations Matrix of explanatory Variables for debt ratios (Machinery Industry:38 Companies)										
Variables	CAGR of TNA	CAGR of sales	Depr/TGA	PBDIT/INT	Log of age	Eq Div/PAT	CA/CL	Net exp/Sales	DIV/SC	R&D/Sales
Log of sales										
Log of GTFA										
Log of TNA										
PBITDA/TGA										
PBIT/TNA										
NFA/TNA										
GFA/TGA										
(Nfa+Inv+AR)/TNA										
INV/TNA										
SD of PBITDA/TGA										
COV of PBIT/TNA										
CAGR of TNA	1									
CAGR of sales	.826(**)	1								
Depr/TGA	-0.032	0.149	1							
PBDIT/INT	0.293	0.25	0.067	1						
Log of age	0.086	-0.102	-0.256	0.184	1					
Eq Div/PAT	0.146	0.048	0.166	0.262	0.206	1				
CA/CL	0.118	-0.046	0.222	0.112	-0.084	0.066	1			
Net exp/Sales	0.126	0.085	-0.027	0.276	.367(*)	0.168	0.045	1		
DIV/SC	.482(**)	.382(*)	-0.006	.403(*)	0.093	.401(*)	0.099	.329(*)	1	
R&D/Sales	0.272	0.225	-0.189	.382(*)	.376(*)	0.187	-0.176	0.293	0.083	1
INT/DEBT	-0.282	-.328(*)	-.354(*)	0.049	0.301	-0.005	-.368(*)	-0.089	-0.171	0.128
*Correlation is significant at the 0.05 level (2-tailed).										
**Correlation is significant at the 0.01 level (2-tailed).										



Table 6.2.3												
Variance Inflationary Factors of Stepwise Multiple Regressions of Machinery Industry (38 FDI Companies)												
STD1/TA ratio			TC&ETA ratio			LTD/TA ratio			TL/TA ratio			
Variables	Run6 <sup>b</sup>	Variables	Run 1 <sup>b</sup>	Run7 <sup>b</sup>	Variables	Run 1 <sup>b</sup>	Run4 <sup>b</sup>	Run5 <sup>b</sup>	Run6 <sup>b</sup>	Variables	Run 1 <sup>b</sup>	Run 2 <sup>b</sup>
Log of sales	-----	Log of sales	-----	-----	Log of sales	-----	-----	-----	-----	Log of sales	-----	-----
Log of GTFA	-----	Log of GTFA	-----	-----	Log of GTFA	-----	-----	-----	-----	Log of GTFA	-----	-----
Log of TNA	-----	Log of TNA	-----	-----	Log of TNA	-----	-----	-----	-----	Log of TNA	-----	-----
PBITDA/TGA	-----	PBITDA/TGA	-----	1.266	PBITDA/TGA	-----	1.119	-----	-----	PBITDA/TGA	-----	-----
PBT/TNA	-----	PBT/TNA	-----	-----	PBT/TNA	1.009	-----	-----	-----	PBT/TNA	-----	1.721
NFA/TNA	1.016	NFA/TNA	1.016	-----	NFA/TNA	1.009	-----	1.019	-----	NFA/TNA	-----	-----
GFA/TGA	-----	GFA/TGA	-----	1.143	GFA/TGA	-----	1.142	-----	-----	GFA/TGA	-----	-----
(Nfa+Inv+AR)/TNA	-----	(Nfa+Inv+AR)/TNA	-----	-----	(Nfa+Inv+AR)/TNA	-----	-----	-----	-----	(Nfa+Inv+AR)/TNA	-----	-----
INV/TNA	-----	INV/TNA	-----	-----	INV/TNA	-----	-----	-----	-----	INV/TNA	1.025	-----
SD of PBITDA/TGA	-----	SD of PBITDA/TGA	-----	1.111	SD of PBITDA/TGA	-----	1.177	-----	-----	SD of PBITDA/TGA	-----	-----
COV of PBIT/TNA	1.078	COV of PBIT/TNA	1.078	-----	COV of PBIT/TNA	-----	-----	1.016	-----	COV of PBIT/TNA	1.025	1.721
CAGR of TNA	-----	CAGR of TNA	-----	-----	CAGR of TNA	-----	-----	-----	-----	CAGR of TNA	-----	-----
CAGR of sales	-----	CAGR of sales	-----	-----	CAGR of sales	-----	-----	-----	-----	CAGR of sales	-----	-----
Depr/TGA	-----	Depr/TGA	-----	-----	Depr/TGA	-----	-----	-----	-----	Depr/TGA	-----	-----
PBDIT/INT	-----	PBDIT/INT	-----	-----	PBDIT/INT	-----	-----	-----	-----	PBDIT/INT	-----	-----
Log of age	-----	Log of age	-----	-----	Log of age	-----	-----	-----	-----	Log of age	-----	-----
Eq Div/PAT	-----	Eq Div/PAT	-----	-----	Eq Div/PAT	-----	-----	-----	-----	Eq Div/PAT	-----	-----
CA/CL	1.094	CA/CL	1.094	1.254	CA/CL	-----	-----	-----	-----	CA/CL	-----	-----
Net exp/Sales	-----	Net exp/Sales	-----	-----	Net exp/Sales	-----	1.117	1.034	-----	Net exp/Sales	-----	-----
DIV/SC	-----	DIV/SC	-----	-----	DIV/SC	-----	-----	-----	-----	DIV/SC	-----	-----
R&D/Sales	-----	R&D/Sales	-----	-----	R&D/Sales	-----	-----	-----	-----	R&D/Sales	-----	-----
INT/DEBT	-----	INT/DEBT	-----	-----	INT/DEBT	-----	-----	-----	-----	INT/DEBT	-----	-----

Table 6.2.4					
Final Regression runs on Debt ratio:STD1/TA (Machinery Industry:38 companies) [Stepwise Regression results]					
Run1	Run2	Run3	Run4	Run5	Run6
Log of sales	Log of sales	Log of sales	Log of sales	Log of TNA	Log of TNA
-----	PBT/TNA	-----	PBT/TNA	PBT/TNA	PBT/TNA
NFA/TNA(-)	NFA/TNA(-)	NFA/TNA(-)	NFA/TNA(-)	NFA/TNA(-)	NFA/TNA(-)
-----	-----	INV/TNA	-----	INV/TNA	INV/TNA
COV PBIT/TNA(+)	COV PBIT/TNA(+)	COV PBIT/TNA(+)	COV PBIT/TNA(+)	COV PBIT/TNA(+)	COV PBIT/TNA(+)
CAGR of TNA	CAGR of TNA	CAGR of sales	CAGR of TNA	CAGR of TNA	CAGR of sales
Log of age	Log of age	Log of age	Log of age	Log of age	Log of age
Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT
CA/CL(-)	CA/CL(-)	CA/CL(-)	CA/CL(-)	CA/CL(-)	CA/CL(-)
Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales
R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales
INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT
DIV/SC	-----	DIV/SC	DIV/SC	DIV/SC	DIV/SC
R sq =0.651	R sq =0.651	R sq =0.651	R sq =0.651	R sq =0.651	R sq =0.651
Adj R sq=.620	Adj R sq=.620	Adj R sq=.620	Adj R sq=.620	Adj R sq=.620	Adj R sq=.620

Table 6.2.5								
Final Regression runs on Debt ratio:TC&E/TA (Machinery Industry:38 companies) [Stepwise Regression results]								
Run1	Run2	Run3	Run4	Run5	Run6	Run7	Run8	Run9
Log of sales	Log of sales	Log of sales	Log of TNA	Log of GTFA	Log of sales	Log of GTFA	Log of sales	Log of sales
PBT/TNA	PBT/TNA	PBT/TNA	PBT/TNA	PBITDA/TGA(-)	-----	PBITDA/TGA(-)	PBT/TNA	PBT/TNA
NFA/TNA(-)	(Nfa+Inv+AR)/TNA	-----	NFA/TNA(-)	GFA/TGA(-)	NFA/TNA(-)	GFA/TGA(-)	NFA/TNA(-)	NFA/TNA(-)
COV PBIT/TNA(+)	COV PBIT/TNA(+)	COV PBIT/TNA(+)	COV PBIT/TNA(+)	SD of PBITDA/TGA(+)	COV PBIT/TNA(+)	SD of PBITDA/TGA(-)	COV PBIT/TNA(+)	COV PBIT/TNA(+)
CAGR of TNA	CAGR of TNA	CAGR of TNA	CAGR of TNA	CAGR of sales	CAGR of TNA	CAGR of sales	CAGR of TNA	CAGR of sales
Log of age	Log of age	Log of age	Log of age	Log of age	Log of age	Log of age	Log of age	Log of age
Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT
CA/CL(-)	CA/CL(-)	CA/CL(-)	CA/CL(-)	CA/CL(-)	CA/CL(-)	CA/CL(-)	CA/CL(-)	CA/CL(-)
Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales
R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales
INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT
-----	-----	-----	-----	-----	DIV/SC	DIV/SC	DIV/SC	DIV/SC
-----	-----	-----	-----	-----	-----	Depr/TGA	-----	-----
-----	-----	-----	-----	PBDIT/INT	-----	PBDIT/INT	-----	-----
-----	-----	INV/TNA	-----	-----	-----	-----	-----	INV/TNA
R sq=.784	R sq =0.640	R sq =0.640	R sq=.784	R sq =.857	R sq=.784	R sq =.857	R sq=.784	R sq=.784
Adj R sq=.765	Adj R sq=.619	Adj R sq=.619	Adj R sq=.765	Adj R sq=.840	Adj R sq=.765	Adj R sq=.840	Adj R sq=.765	Adj R sq=.765

Table 6.2.6					
Final Regression runs on Debt ratio:LTD/TA (Machinery Industry:38 companies) [Stepwise Regression results]					
Run1	Run2	Run3	Run4	Run5	Run6
Log of sales	Log of TNA	Log of TNA	Log of GTFA	Log of TNA	Log of GTFA
PBT/TNA(-)	PBT/TNA(-)	PBT/TNA(-)	PBITDA/TGA(-)	-----	PBITDA/TGA(-)
NFA/TNA(+)	(Nfa+Inv+AR)/TNA	NFA/TNA(+)	GFA/TGA(+)	NFA/TNA(+)	GFA/TGA(+)
COV PBIT/TNA	COV PBIT/TNA	COV PBIT/TNA	SD of PBITDA/TGA(+)	COV PBIT/TNA(+)	SD of PBITDA/TGA
CAGR of TNA	CAGR of TNA	CAGR of sales	CAGR of sales	CAGR of TNA	CAGR of sales
Log of age	Log of age	Log of age	Log of age	Log of age	Log of age
Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT
CA/CL	CA/CL	CA/CL	CA/CL	CA/CL	CA/CL
Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales(-)	Net exp/Sales(-)	Net exp/Sales(-)
R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales
INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT
-----	-----	-----	-----	DIV/SC	DIV/SC
-----	-----	-----	-----	-----	Depr/TGA(-)
-----	-----	-----	PBDIT/INT	-----	PBDIT/INT
R sq= .497	R sq =0.352	R sq= .497	R sq =.53	R sq =.529	R sq =.585
Adj R Sq = .468	Adj R sq=.334	Adj R Sq = .468	Adj R sq=.473	Adj R sq=.487	Adj R sq=.535

Table 6.2.7					
Final Regression runs on Debt ratio:TL/TA (Machinery Industry:38 companies) [Stepwise Regression results]					
Run1	Run2	Run3	Run4	Run5	Run6
Log of sales	Log of sales	Log of sales	Log of sales	Log of sales	Log of sales
PBT/TNA	PBT/TNA(-)	PBT/TNA(-)	PBT/TNA(-)	PBT/TNA	PBT/TNA(-)
(Nfa+Inv+AR)/TNA(+)	INV/TNA	INV/TNA	NFA/TNA	(Nfa+Inv+AR)/TNA(+)	INV/TNA
COV PBIT/TNA(+)	COV PBIT/TNA(+)	COV PBIT/TNA(+)	COV PBIT/TNA(+)	COV PBIT/TNA(+)	COV PBIT/TNA(+)
CAGR of TNA	CAGR of TNA	CAGR of sales	CAGR of TNA	CAGR of TNA	CAGR of TNA
Log of age	Log of age	Log of age	Log of age	Log of age	Log of age
Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT
CA/CL	CA/CL	CA/CL	CA/CL	CA/CL	CA/CL
Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales
R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales
INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT
-----	-----	-----	DIV/SC	DIV/SC	DIV/SC
R sq =0.635	R sq =0.631	R sq =0.631	R sq =0.631	R sq =0.635	R sq =0.631
Adj R sq=.614	Adj R sq=.610	Adj R sq=.610	Adj R sq=.610	Adj R sq=.614	Adj R sq=.610



Table 6.3.2 ( page 1)											
Pearsons Correlations Matrix of Explanatory Variables for Debt ratios (Transport Industry:18 Companies)											
Variables	Log of sales	Log of GTFA	Log of TNA	PBITDA/TGA	PBT/TNA	NFA/TNA	GFA/TGA	(Nfa+Inv+AR)/TNA	INV/TNA	SD of PBITDA/TGA	COV of PBIT/TNA
Log of sales	1										
Log of GTFA	.966(**)	1									
Log of TNA	.980(**)	.970(**)	1								
PBITDA/TGA	0.264	0.114	0.229	1							
PBT/TNA	0.216	0.059	0.181	.983(**)	1						
NFA/TNA	0.337	0.463	0.287	-0.271	-0.379	1					
GFA/TGA	0.349	.496(*)	0.282	-0.293	-0.348	.883(**)	1				
(Nfa+Inv+AR)/TNA	-0.044	0.084	-0.065	-.592(**)	-.628(**)	.659(**)	.554(*)	1			
INV/TNA	-0.113	-0.104	-0.122	-0.407	-0.345	-0.049	-0.01	.599(**)	1		
SD of PBITDA/TGA	-0.006	-0.16	-0.014	.572(*)	.595(**)	-0.4	-.472(*)	-.567(*)	-0.173	1	
COV of PBIT/TNA	-0.177	-0.139	-0.168	-0.331	-0.298	0.055	0.099	0.112	0.253	0.434	1
CAGR of TNA	.502(*)	0.458	.471(*)	.602(**)	.540(*)	0.211	0.205	-0.079	-0.282	-0.023	-0.36
CAGR of sales	.484(*)	0.423	0.392	0.405	0.343	0.417	0.378	0.169	-0.162	-0.068	-0.319
Depr/TGA	0.46	.550(*)	0.418	0.102	0.087	0.377	.680(**)	-0.01	-0.302	-0.355	-0.254
PBDIT/INT	0.243	0.287	0.276	-0.168	-0.118	0.12	0.121	0.196	0.04	-0.285	-0.16
Log of age	-0.081	-0.146	-0.055	0.054	0.088	-0.297	-0.374	-0.311	-0.309	0.376	0.014
Eq Div/PAT	-.577(*)	-.550(*)	-.536(*)	-0.168	-0.101	-0.427	-0.385	0.023	0.206	-0.226	-0.242
CA/CL	-0.109	-0.052	-0.02	-0.117	-0.108	-0.089	-0.173	0.264	.526(*)	0.109	0.231
Net exp/Sales	0.175	-0.03	0.104	.698(**)	.695(**)	-0.272	-0.349	-0.461	-0.202	.585(*)	-0.173
DIV/SC	0.264	0.345	0.354	0.138	0.184	-0.141	0.002	-0.255	-0.298	-0.102	-0.279
R&D/Sales	-0.065	0.018	0.03	-.486(*)	-.498(*)	0.048	-0.081	0.28	0.413	-0.141	0.195
INT/DEBT	-0.027	-0.115	-0.033	.723(**)	.739(**)	-0.388	-0.316	-.615(**)	-.471(*)	0.415	-0.136
*Correlation is significant at the 0.05 level (2-tailed).											
**Correlation is significant at the 0.01 level (2-tailed).											

Table 6.3.2 Continued: ( page 2)											
Pearsons Correlations Matrix of Explanatory Variables for Debt ratios (Transport Industry:18 Companies)											
Variables	CAGR of TNA	CAGR of sales	Depr/TGA	PBDIT/INT	Log of age	Eq Div/PAT	CA/CL	Net exp/Sales	DIV/SC	R&D/Sales	INT/DEBT
Log of sales											
Log of GTFA											
Log of TNA											
PBITDA/TGA											
PBT/TNA											
NFA/TNA											
GFA/TGA											
(Nfa+Inv+AR)/TNA											
INV/TNA											
SD of PBITDA/TGA											
COV of PBIT/TNA											
CAGR of TNA	1										
CAGR of sales	.781(**)	1									
Depr/TGA	0.445	.473(*)	1								
PBDIT/INT	0.03	-0.148	0.03	1							
Log of age	-0.254	-0.142	-0.229	0.073	1						
Eq Div/PAT	-0.301	-0.428	-0.334	0.062	0.08	1					
CA/CL	-0.395	-.486(*)	-0.417	-0.014	-0.019	0.138	1				
Net exp/Sales	0.424	0.378	-0.146	-0.21	0.397	-0.146	-0.187	1			
DIV/SC	0.013	-0.233	0.322	0.414	0.341	0.084	0.25	-0.121	1		
R&D/Sales	-.587(*)	-.604(**)	-0.361	0.166	-0.243	0.014	.612(**)	-608(**)	0.014	1	
INT/DEBT	.497(*)	0.248	0.068	-0.246	0.028	0.116	-0.246	.525(*)	0.14	-.672(**)	1
*Correlation is significant at the 0.05 level (2-tailed).											
**Correlation is significant at the 0.01 level (2-tailed).											

Table 6.3.3										
Variance Inflationary Factors of Stepwise Multiple Regressions of Transport Industry (18 FDI Companies )										
TC&E/TA ratio				LTD/TA ratio				TL/TA ratio		
Variables	Run 1 <sup>b</sup>	Run 3 <sup>b</sup>	Run9 <sup>b</sup>	Variables	Run 1 <sup>b</sup>	Run2 <sup>b</sup>	Run4 <sup>b</sup>	Variables	Run 1 <sup>b</sup>	Run 2 <sup>b</sup> Run 4 <sup>b</sup>
Log of sales				Log of sales				Log of sales		
Log of GTFA				Log of GTFA				Log of GTFA		
Log of TNA				Log of TNA				Log of TNA		
PBITDA/TGA				PBITDA/TGA				PBITDA/TGA		
PBT/TNA				PBT/TNA				PBT/TNA		1.008
NFA/TNA	1.337		1.343	NFA/TNA	1.008			NFA/TNA		
GFA/TGA				GFA/TGA			1.031	GFA/TGA		
(Nfa+Inv+AR)/TNA				(Nfa+Inv+AR)/TNA		1.000		(Nfa+Inv+AR)/TNA	1.000	
INV/TNA		1.044	1.343	INV/TNA				INV/TNA		1.000
SD of PBITDA/TGA				SD of PBITDA/TGA				SD of PBITDA/TGA		
COV of PBIT/TNA			1.214	COV of PBIT/TNA				COV of PBIT/TNA		
CAGR of TNA				CAGR of TNA				CAGR of TNA		
CAGR of sales				CAGR of sales				CAGR of sales		
Depr/TGA				Depr/TGA				Depr/TGA		
PBDIT/INT				PBDIT/INT				PBDIT/INT		
Log of age				Log of age				Log of age		
Eq Div/PAT	1.100		1.266	Eq Div/PAT				Eq Div/PAT		1.008
CA/CL	1.227	1.044	1.420	CA/CL				CA/CL		
Net exp/Sales				Net exp/Sales	1.008		1.031	Net exp/Sales		
DIV/SC				DIV/SC				DIV/SC		
R&D/Sales				R&D/Sales				R&D/Sales		
INT/DEBT				INT/DEBT				INT/DEBT		

Table 6.3.4					
Final Regression runs on Debt ratio:STD1/TA (Transport Industry:18 companies) [Stepwise Regression results]					
Run1	Run2	Run3	Run4	Run5	Run6
Log of sales	Log of sales	Log of sales	Log of sales	Log of TNA	Log of TNA
-----	PBT/TNA	-----	PBT/TNA	PBT/TNA	PBT/TNA
NFA/TNA	NFA/TNA	NFA/TNA	NFA/TNA	NFA/TNA	NFA/TNA
-----	-----	INV/TNA	-----	INV/TNA	INV/TNA
COV PBIT/TNA	COV PBIT/TNA	COV PBIT/TNA	COV PBIT/TNA	COV PBIT/TNA	COV PBIT/TNA
CAGR of TNA	CAGR of TNA	CAGR of sales	CAGR of TNA	CAGR of TNA	CAGR of sales
Log of age	Log of age	Log of age	Log of age	Log of age	Log of age
Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT
CA/CL	CA/CL	CA/CL	CA/CL	CA/CL	CA/CL
Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales
R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales
INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT
DIV/SC	-----	DIV/SC	DIV/SC	DIV/SC	DIV/SC
None of the indicators are significant in Stepwise Regression					

Table 6.3.5								
Final Regression runs on Debt ratio:TC&E/TA (Transport industry :18 companies) [Stepwise Regression results]								
Run1	Run2	Run3	Run4	Run5	Run6	Run7	Run8	Run9
Log of sales	Log of sales	Log of sales	Log of TNA	Log of GTFA	Log of sales	Log of GTFA	Log of sales	Log of sales
PBT/TNA	PBT/TNA	PBT/TNA	PBT/TNA	PBITDA/TGA	-----	PBITDA/TGA	PBT/TNA	PBT/TNA
NFA/TNA(-)	(Nfa+Inv+AR)/TNA	-----	NFA/TNA(-)	GFA/TGA	NFA/TNA(-)	GFA/TGA	NFA/TNA(-)	NFA/TNA(-)
COV PBIT/TNA	COV PBIT/TNA	COV PBIT/TNA	COV PBIT/TNA	SD of PBITDA/TGA	COV PBIT/TNA	SD of PBITDA/TGA	COV PBIT/TNA	COV PBIT/TNA(-)
CAGR of TNA	CAGR of TNA	CAGR of TNA	CAGR of TNA	CAGR of sales	CAGR of TNA	CAGR of sales	CAGR of TNA	CAGR of sales
Log of age	Log of age	Log of age	Log of age	Log of age	Log of age	Log of age	Log of age	Log of age
Eq Div/PAT(-)	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT(-)	Eq Div/PAT	Eq Div/PAT(-)	Eq Div/PAT	Eq Div/PAT(-)	Eq Div/PAT(-)
CA/CL(-)	CA/CL(-)	CA/CL(-)	CA/CL(-)	CA/CL(-)	CA/CL(-)	CA/CL(-)	CA/CL(-)	CA/CL(-)
Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales
R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales
INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT
-----	-----	-----	-----	-----	DIV/SC	DIV/SC	DIV/SC	DIV/SC
-----	-----	-----	-----	-----	-----	Depr/TGA	-----	-----
-----	-----	-----	-----	PBDIT/INT	-----	PBDIT/INT	-----	-----
-----	-----	INV/TNA(+)	-----	-----	-----	-----	-----	INV/TNA(+)
R sq= .878	R sq =0.761	R sq =0.869	R sq= .878	R sq =0.761	R sq= .878	R sq =0.761	R sq= .878	R sq= .967
Adj R sq= .852	Adj R sq=.746	Adj R sq=.852	Adj R sq= .852	Adj R sq=.746	Adj R sq= .852	Adj R sq=.746	Adj R sq= .852	Adj R sq= .953



Table 6.3.6					
Final Regression runs on Debt ratio:LTD/TA (Transport Industry:18 companies) [Stepwise Regression results]					
Run1	Run2	Run3	Run4	Run5	Run6
Log of sales	Log of TNA	Log of TNA	Log of GTFA	Log of TNA	Log of GTFA
PBT/TNA	PBT/TNA	PBT/TNA	PBITDA/TGA	-----	PBITDA/TGA
NFA/TNA(+)	(Nfa+Inv+AR)/TNA(+)	NFA/TNA(+)	GFA/TGA(+)	NFA/TNA(+)	GFA/TGA(+)
COV PBIT/TNA	COV PBIT/TNA	COV PBIT/TNA	SD of PBITDA/TGA	COV PBIT/TNA	SD of PBITDA/TGA
CAGR of TNA	CAGR of TNA	CAGR of sales	CAGR of sales	CAGR of TNA	CAGR of sales
Log of age	Log of age	Log of age	Log of age	Log of age	Log of age
Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT
CA/CL	CA/CL	CA/CL	CA/CL	CA/CL	CA/CL
Net exp/Sales(+)	Net exp/Sales	Net exp/Sales(+)	Net exp/Sales(+)	Net exp/Sales(+)	Net exp/Sales(+)
R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales
INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT
-----	-----	-----	-----	DIV/SC	DIV/SC
-----	-----	-----	-----	-----	Depr/TGA
-----	-----	-----	PBDIT/INT	-----	PBDIT/INT
R sq= .670	R sq=.499	R sq=.670	R sq =.556	R sq= .670	R sq =.556
Adj R Sq = .627	Adj R sq=.467	Adj R Sq = .627	Adj R sq=.497	Adj R Sq = .627	Adj R sq=.497

Table 6.3.7					
Final Regression runs on Debt ratio:TL/TA (Transport Industry:18 companies) [Stepwise Regression results]					
Run1	Run2	Run3	Run4	Run5	Run6
Log of sales	Log of sales	Log of sales	Log of sales	Log of sales	Log of sales
PBT/TNA	PBT/TNA	PBT/TNA	PBT/TNA(-)	PBT/TNA	PBT/TNA
(Nfa+Inv+AR)/TNA(+)	INV/TNA(+)	INV/TNA(+)	NFA/TNA	(Nfa+Inv+AR)/TNA(+)	INV/TNA(+)
COV PBIT/TNA	COV PBIT/TNA	COV PBIT/TNA	COV PBIT/TNA	COV PBIT/TNA	COV PBIT/TNA
CAGR of TNA	CAGR of TNA	CAGR of sales	CAGR of TNA	CAGR of TNA	CAGR of TNA
Log of age	Log of age	Log of age	Log of age	Log of age	Log of age
Eq Div/PAT	Eq Div/PAT	Eq Div/PAT	Eq Div/PAT(-)	Eq Div/PAT	Eq Div/PAT
CA/CL	CA/CL	CA/CL	CA/CL	CA/CL	CA/CL
Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales	Net exp/Sales
R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales	R&D/Sales
INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT	INT/DEBT
-----	-----	-----	DIV/SC	DIV/SC	DIV/SC
R sq =.417	R sq =.326	R sq =.326	R sq =.458	R sq =.417	R sq =.326
Adj R sq=.381	Adj R sq=.284	Adj R sq=.284	Adj R sq=.386	Adj R sq=.381	Adj R sq=.284