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## Editor's Desk

It is the time to revisit corporate governance. The scandal involving India's fourth largest information technology company, Satyam has questions about corporate governance. The auditing firm of Satyam, Price Water house cooper also admits the goof-up in the company's accounts. There is a case for the government to step in to salvage the wreck that is left of Satyam. The concerns for the government should be protecting India's credibility as an outsourcing destination, institutional integrity, regulation and corporate governance and the fate of employees. Scams like this put big question marks on the credibility of Indian business houses and the authenticity of auditing firms.

The current issue of JIMS 8M has seven articles. The research section features six articles. The first one on "Profitability of Housing Finance Companies in India: A Bivariate Analysis of selected HFCS" by Ashwani Kumar and others has tried to analyze the financial performance of selected Housing Finance Companies. In the article "Corporate Capital Structure: The Case of Indian Textile Firms", Karam Pal and others emphasize diverse determinants that help a firm to raise resources to maintain the desired the debt-equity ratio. Manish Mittal and others in their article "Demographics of Self Attribution Bias in Investment Decision" try to investigate whether Indian Investors are susceptible to self attribution bias and identify the demographic groups which are more susceptible to it. In the article "Emerging Pattern of Dividend in India Since 1991", B.S. Bodla and others have made an attempt to bring out the changes in dividend practices of Joint Stock Companies in India. Sandeep Goel in his article "Working Capital Management in Reliance Industries Ltd." delineates the various components of working capital, analyzes the liquidity trend and appraises the utilization of current assets in the group under study. In the article "Contribution of Agriculture in the Development of Indian Economy", Neetu Pathak has analysed the share of agriculture sector in Indian economy.

The opinion section consists of one article by S.C. Sharma titled "Managing the Self: Thoughts from Gitanjali And Bhagvad Gita". This article throws light on the similarity of thoughts in Gitanjali and Bhagvad Gita.

(Dr. Ravi K. Dhar)

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## RESEARCH

# PROFITABILITY OF HOUSING FINANCE COMPANIES IN INDIA: A BIVARIATE ANALYSIS OF SELECTED HFCS

Ashwani Kumar Bhalla ★ Parvinder Arora ★★ Pushpinder Singh Gill ★★★

*This study has tried to analyze the financial performance of selected Housing Finance companies. The analysis of performance of Housing Finance Companies is made using some widely used indicators of measuring finance companies performance, namely financial ratios. To study and examine the effect of various selected independent variables on profitability of selected Housing finance companies. The independent variables considered are Interest income, interest expenses, Non interest income, operating and administrative expenses and employee costs. In the analysis Bi-variate correlation analysis has been used to study the correlation between various variables. From the above analysis it can be concluded that as far as the overall profitability of the housing finance companies is concerned it has gone down as depicted by falling trend of return on capital employed. The correlation coefficient matrix reflects some of the interesting results discussed in the paper. The most common thing which is reflected in the analysis of all the companies is the positive correlation of interest income and interest expenditure as percentage of capital employed with return on capital employed. It can be concluded that Housing Finance companies has to spread out geographically while ensuring consistency in the processing and service standards.*

Housing Finance is a specialized form of finance and efficiency of Housing Finance system in a country is one of the basic indicators of the growth of its economy. Hence understanding the efficiency and effectiveness of Housing Finance system is very much essential and relevant. In a country like India, which is still at developing stage even after the 61 years of Independence, only sound Housing Finance system can fulfill the needs of poor and middle class people regarding their housing problems. Though the formal system of housing finance is not new in India but its present shape and changing environment is compelling the people engaged in this system to improve its functioning. In the post liberalization Era plenty of new players has entered in the system and the interest rate regime has become market oriented which has created a competitive environment. All these developments in the field of Housing Finance gives rise to certain queries in the mind of a researcher. These questions may be regarding:

- How these specialized housing finance companies are evolving in India in post liberalization period?
- How these companies has performed financially in the post liberalization period.

The housing finance companies are basically non-banking financial companies. A non-banking financial company is classified as housing finance company, if providing housing finance is the principal object of the company; or

if there is more than one principle object, as per the Memorandum and Articles of Association, housing finance should form a major share of the company's asset pattern as revealed by its latest balance sheet (Vora, 1999). As per the NHB Act 1987, A HFC is a company which mainly carries on the business of housing finance or has one of its main object clause in the Memorandum of Association of carrying on the business of providing finance for the housing. For commencing the housing finance business, an HFC is required to have the following in addition to the requirements under the Companies Act, 1956:

- Certificate of registration from NHB
- Minimum net owned fund of Rs. 200 lakhs ( w.e.f. 16.02.2002)

Housing Finance Companies (HFCs) are required to obtain certificate of registration under section 29A of NHB Act to carry on the business of housing finance. Presently there are 349 Housing finance companies working in the

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country and doing the business of housing finance. Out of these 349 only 49 are registered with National Housing Bank (NHB report, 2005) and out of those only 30 HFCs are approved for financial assistance by National Housing bank. Out of these 30 Companies only 20 HFCs have been given the Certificate of Registration (COR) with permission to accept public deposits. Initially the Housing finance Companies played a dominant role in providing the Housing finance to the customers. In the post liberalisation Era, three distinct groups of Housing Finance companies have emerged. Specialised Housing finance companies set up by Industrial groups or individual promoters; Housing finance Companies subsidiaries of commercial banks; and Housing finance companies set up by Insurance companies. The first group of companies, besides tapping the market for public deposits, raises their resources mainly through National Housing Bank refinancing. The parent banks provide much of the resources of the second group of Housing finance companies and the insurance companies have traditionally provided funds to their own subsidiaries. But with the entry of Banking sector and other players in this field, the scenario started changing.

This paper critically examines the profitability of selected Housing finance companies and analyse the strong factors which affect the profitability of these companies.

Objectives:

- To Study and analyse the financial performance of selected Housing Finance Companies.
- To study and examine the effect of various selected independent variables on profitability of selected Housing finance companies.

## I Research Design and Method

The paper is concerned with the Indian Housing Finance Industry. The secondary data was collected from the published documents of different institutions involved in the housing finance activities directly. The evaluation of performance of Housing Finance Companies is made using some widely used indicators of measuring finance companies performance, namely financial ratios. The companies for evaluation have been selected on the following Criteria:

- Housing Companies which are registered with National Housing Bank and are eligible to accept public deposits apart from doing the housing finance business in India.
- Companies which are in the category 1 and are listed on recognized stock exchange.
- Companies which are doing the housing finance business at least from last 10 years.

Presently there are 20 companies which are registered with the National Housing Bank and have been given the permission to accept public deposits as per section 29 A of the NHB Act. Out of the 20 companies 12 companies fit in the criteria selected the present study and these companies account for more than 60% of the business of housing finance business in India (See Appendix for a list of the Housing Finance companies selected for this survey.) Even though many housing finance companies are working from more than 10 years but full data are only available between 1999-00 to 2006-07 . Therefore the period of 1999-00 to 2006-07 as been used for analysis purpose. The Housing Finance companies which have less than 10 years track record and are not listed in the recognized stock exchange are kept out of the survey.

To compare the company wise profitability of selected housing finance companies we have used the following ratio's to compare the profitability of these companies and to analyse the strong factors which affect the profitability of these companies.

- Return on Capital Employed (ROCE) (Y)
- Interest Income as percentage of capital employed (X1)
- Non-interest income as percentage of capital employed (X2)
- Interest expenses as percentage of capital employed (X3)
- Operating and administrative expenses as percentage of capital employed (X4)
- Employee expenses as percentage of capital employed (X5)

In the analysis Bi-variate correlation analysis has been used to study the correlation between various variables. In the Bi-variate correlation the relationship between two variables is measured. The relationship has a degree and direction. The degree of relationship (how closely they are related) is usually expressed as a number between -1 and +1, the so-called correlation coefficient. A zero correlation indicates no relationship. As the correlation coefficient moves towards either -1 or +1 the relationship gets stronger until there is a perfect correlation at either extreme. The direction of the relationship is indicated by the “-” and “+” signs. A negative correlation means that as scores on one variable rise, the scores on the other decrease. A positive correlation indicates that the scores move together, both increasing or both decreasing. In the analysis r-square symbol for a coefficient of determination between two variables. It tells us how much of the variability of the dependent variable is explained by (or accounted for, associated with or predicted by) the independent variable. For example, if r-square between

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Interest incomes as percentage of capital employed and Return on capital employed is .30, that would mean that 30% of the variability in the Return on capital employed could be predicted by the variability in Interest income- and that 70% could not.

#### Findings:

Return on Capital Employed: Return on Capital Employed is the ratio of Net Profits after Taxes (PAT)/Capital Employed. It is a good measure of profitability in as much as it is an extension of the input-output analysis. The chief advantage of this ratio is that it sums up the various efficiencies and inefficiencies that the firm may have. Control over costs, pricing policies, effective use of resource, etc., affect profitability and return on capital employed shows up the net results of all these. Capital Employed here is taken as the Total Assets-Current Liabilities. This ratio indicates the profitability of the company in relation to total long term funds employed whether internal equity (Share-holders funds) and Outsider equity (Long term debts). Table -1 depicts the Return on Capital employed of 12 companies over a sample period.

Table 2 explains that the Average return on capital employed of all the companies under study taken together has shown declining trend and average ROCE of 12 companies has gone down from 10.0367% in 1999-00 to 9.0892% in 2006-07. Though initially the ratio has shown some upward trend towards the end of the financial year 2001-02 but after that it is showing downfall in the ratio. Table 3 depicts the average return on capital employed of individual companies which shows that DEWAN Housing Finance Limited has the highest ROCE followed by DHFL Vysya Home Finance limited, GRUH finance Limited HDFC and HUDCO, LIC Housing finance and PNB Housing Finance Limited has average ratio of more than 10%. There are many reasons for this declining trend of return on capital employed over the years. These are stiff regulations, entry of banks and other players in market. The entry of banking institutions has compelled the housing finance companies to reinvent their areas of core competence. The phenomenon has brought into significant qualitative change in the fabric of housing finance system in India. As a result of aggressive competition from banks and gradual softening of rate of interest, the HFCs are compelled to operate on a basis of comparatively thinner spread. Stiff competition in housing finance market has made the functioning of many of small player unviable. Specialized housing finance companies promoted by commercial banks like those of state bank of India (SBI Housing Finance Ltd.), Andhra Bank (Andhra Bank Housing Ltd.), Vijya

Bank (Vijya Bank housing Ltd), Indian Bank (Ind bank housing finance Ltd), were liquidated and their assets were taken over by the respective parent banks. Similarly, Vysya Bank housing finance Ltd has been acquired by a bigger HFC viz. Dewan Housing finance Corporate Limited. These consolidations in housing finance market point to the fact that functioning of small HFCs is very much under pressure. Many small private HFCs without strong parent backing are gradually losing market share in the medium to long term. HFCs have higher cost of funds as compared with banks as they depend on priority sector sub-PLR loans from banks, fixed deposits, NHB refinance and in some cases low cost loans from multilateral agencies. Most private HFCs (excluding HDFC) do not enjoy the highest investment grade ratings by credit rating agencies, which further increase their cost of funds. As a result, HFCs, in general, either have lower spread as compared with a bank or are not able to match rates with banks. In the face of a fierce competition and desperation for survival, these HFCs resort to sub-standard appraisal norms at the origination of loans (NHB report, 2003).

#### Empirical Study of Selected Housing Finance Companies Profitability

Canfin Home Finance Limited (H-1): Average profitability of this company is 11.0713%, because table 4 shows that its profits are significantly but positively correlated with all the components of profitability.

The table: 4 shows that Return on capital employed of this company is positively and significantly correlated with all the factors. All the factors have positive correlation with return on capital employed which means that moving in the same direction. The Company's ROCE has highest correlation (.999) with X3 i.e. Interest expenses as percentage of capital employed which is significant both at 1% and 5% level of significance. Interest income as percentage of capital employed (X1) has also positive and significant correlation with ROCE (.990) which means that moving in the same direction as ROCE. It can be inferred from the above table that ROCE is highly and significantly correlated with all the components like Interest income, interest expenses, Non interest income, operating and administrative expenses and employee costs. All this shows that with every penny increase in any component although increases the ROCE and vice versa.

Independent variables are also correlated with each other. Interest income (X1) has also positive and significant correlation with Interest expenses (X3), followed by Employee Costs (X5) and are significant at 1% level of significance which proves that when interest expenses and

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employee costs are increased because of more borrowings and increasing level of business, its interest income ultimately increased because of more availability of funds for disbursements as house loans and more availability of funds to invest in profitable projects. Similarly Non interest income (X2) has positive and significant correlation with interest expenses, operating and administrative expenses and employee costs meaning thereby that their increase is also pushing the profitability of the company in positive direction and contributing to maintain the ROCE at significant level.

If we look at the average ROCE of this company it comes under the good performers.

DEWAN Housing Finance Limited (H-2): Average Profitability of this company is 11.6613%.

The table:5 showing the bi-variate correlation of Return on Capital employed with other factors and factors among themselves reflect that Interest expenses as percentage of capital employed has highly significant correlation(.996) with return on capital employed followed by interest income as percentage of capital employed(.954) and operating and administrative expenses over capital employed(.958). It means that with the increase in these components of profitability it improves the ROCE. Non Interest income (X2) also has significant correlation (.837) with ROCE. Though employee costs have a positive correlation with ROCE but that is not significant.

All the independent variables are also positively correlated with each other. Interest income has very highly significant positive correlation with Interest expenses (.955) and Operating and administrative expenses (.949) and both are significant even at 1% level of significance which means that company is in a position to generate more funds and enhance their business activity and generate more interest income.

DHFL Vysya Home Finance Limited (H-3): The average profitability of this company is 11.55%.

The correlation analysis table shows that Interest expenses as percentage of capital employed has a positive and highly significant correlation (.965) with return on capital employed followed by Interest income as percentage of capital employed (.738). It means that company is able borrow more funds to make it available to disburse more and more housing loans and generate interest income to to maintain return on capital employed (ROCE). Company is unable to control their operative and administrative expenses and employee cost but these two components are

showing negative correlation it means due to operative and administrative expenses and employee Costs Company's profitability is adversely affected. Company must have control on these two expenditure to enhance their profitability. Operational and administrative expenses have significant impact on the profitability because it is showing significant correlation both at 5 % and 1% level of significance.

Similarly independent variables Interest expenses as percentage of capital Employed (X3) has also negative correlation with operating and administrative expenses and employee costs which means that these two components are pushing these expenses up and because of the failure of employee's efficiency the all other components are affected. Interest income (X1) has negative correlation with Non interest income, operating and administrative expenses and employee costs but it is not significant.

GIC Housing Finance Limited (H4): The average Return on capital employed of this company is 9.6875% which is lower than the earlier three companies.

The above table shows that Return on Capital employed has very high positive correlation (.940) with Interest income as percentage of capital employed (X1) and also positive correlation (.917) with interest expenses as percentage of capital employed. Similarly employee cost as percentage of capital employed has also significant positive correlation (.897) with return on capital employed. All this shows that company is in a position to improve its position in controlling the interest and employee costs and balance its interest income position in spite of decreasing home loan interest rates. Though Non-interest income as percentage of capital employed(X2) and Operating and administrative expenses as percentage of capital employed (X4) has positive correlation with return on capital employed but it is not significant at 1% level of significance. The overall conclusion regarding this company is that its ROCE is lower as compared to other companies but it has significant control over its expenditures.

Independent variables such as Interest income have a highly positive correlation (.933) with Interest expenses and Employee costs (.883). This shows that though there is a increase in interest expenses and employee costs but company is in a position to utilize the funds generated from borrowing to disburse efficiently for home loans and investment for raising the interest income. Positive correlation with employee costs indicate that employee efforts are able to generate more business for the company.

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GRUH Housing Finance Limited: The average return on capital employed of this company is 11.288% which is quite high percentage in the sample companies.

The bivariate correlation analysis of this company shows that Return on Capital Employed (Y) has significant positive correlation with Interest income, Non-interest income and Interest expenditure and Employee costs. This shows that on an average company is able to control its interest expenditure and employee costs and maintain its interest income and able to push up the Return on capital employed over the years. Though operating and administrative expenditure has also positive correlation but it is not significant. The overall analysis of this company shows good result.

Housing Development and Finance Corporation(HDFC) (H6) :

The average Return on capital employed of this company is 11.27% which is in the highest corner of selected sample companies. The return on capital employed of this company has highly significant correlation with interest expenses as percentage of capital employed(1.00). Followed by interest income and non interest income. It shows that this company was able to utilise its borrowings efficiently to generate revenue for the company. The positive and significant correlation Operating and administrative expenditure (.714) and Employee costs(.828) indicate that the increase of these expenses also pushing the profitability of the company up by generating more business in the form of investments and home loan disbursements. The efficiency to maintain its interest income in spite of decreasing trend of home loans interest rates is another feature of this company as shown by significant interest income correlation with Return on capital employed (.923).

Similarly all the independent variables are showing significant positive correlation with each other indicating the positive direction.

Housing and Urban Development Corporation (H7) : The average Return on Capital employed of this company is 10.24% which is towards the highest corner. The analysis table shows that ROCE of this company has significant positive correlation with Interest expenses over capital employed (.844) and operating and administrative expenses over capital employed(.713) . Though Interest income, Non-interest income and Employee costs are also showing positive correlation but that is not much significant. It means that because of the efficient utilisation of the borrowed funds and operating and administrative

expenditure the company is able to maintain its return on capital employed.

Independent variable Interest income has highly significant correlation with Interest expenses which signify the utilization of borrowed funds efficiently to increase the interest income. All other independent variables such as Non interest income, Interest expenses, operating and administrative expenses and employee costs are not showing significant correlation among themselves.

IDBI Home Finance Limited (H-8): This company has lowest average return on capital employed of 6.23% as compared to other companies in the sample.

The Above table has shown that Interest expenses as percentage of capital employed and interest income as percentage of capital employed as significant positive correlation with return on capital employed which means that company profitability is pushed up by these two factors i.e. lowering interest expenses and rising interest income as percentage of capital employed. Initially the company has shown rising trend of interest expenses till 2002-03 but after that it start decreasing. The most disturbing factor is the negative correlation of non-interest income, operative and administrative expenses and employee cost. Though it is not significant to push down the profitability but company need to address the issue of rising costs to push the profitability in future.

Independent variable Interest income as percentage of capital employed (X1) has strong positive correlation with Interest expenses (.919) which signify that with the borrowing costs such as interest expenses company is able to generate more business in the form of interest income by disbursements of loans and investments. Interest income has negative correlation with other independent variables though it is not significant at 5% or 1% level of significance.

LIC Housing Finance Limited (H-9) This company has the average return on capital employed 10.83% which is in higher corner.

The correlation table also justify this because interest expenses and interest income as percentage of capital employed are showing positive signified correlation with return on capital employed which means that company is in a position to control its interest expenditure by the judicious use of trading on equity and maintaining its positive correlation with interest income at its significant level but the disturbing aspect is negative correlation with operating and administrative expenses. Though it is not

significantly negative at 5% and 1% level of significance but it needs to be addressed to maintain and enhance the profitability in future. The regression analysis of ROCE as shown in table 12 also reflects that it is showing the significant downward trend which is mainly because of rising operating and administrative expenses. Non-Interest income is not significantly pushing the profitability of this company. The main strength of the company is control of its interest expenditure as percentage of capital employed.

PNB Housing Finance Limited (H-10): The average return on capital employed of this company is 10.93% which is in the higher corner as compared to other companies.

The correlation coefficient matrix reflects that interest expenditure has the highly significant positive correlation with profitability; it means controlling interest expenditure and efficient utilization of funds is pushing the profitability of the company. Similarly, interest income and non-interest income have also significant positive impact on the profitability at the 5% level of significance. Though the impact of operating and administrative expenses is not very significant, its negative correlation shows that it is pushing the profitability of the company towards a downward trend which needs to be addressed. The trend of ROCE is showing downward as shown in table 1 and which is significant also. It is mainly because of rising operating and administrative expenses and decreasing ratio of interest income as percentage of capital employed.

Sundram Home Finance Limited (H-11): This company has the average return on capital employed of 7.37% which is towards the lowest corner.

The correlation coefficient matrix shown above reflects that interest expenditure has the highest positive correlation with ROCE which pushes its profitability along with interest income, but employee costs have a strong negative and significant correlation which pushes down the profitability of the company. Rising employee costs also have a highly negative impact on the interest income which needs to be addressed by the company. Though this company is showing some rising trend of ROCE as shown in table 12, it is not significant. Though both operating and administrative expenses and employee costs have shown significant decrease as shown by the regression analysis, still employee costs are negatively correlated with the profitability, which needs to be addressed.

ICICI Home Finance Limited (H-12): The average return

on capital employed of this company is 7.57% which is on the lower side.

The correlation coefficient matrix shown above reflects that interest expenditure followed by interest income are highly significantly and positively correlated with the efficiency of the company. Though operating and administrative expenditure are negatively correlated, but it is not significant.

Independent variable interest income as percentage of capital employed (X1) is showing highly significant correlation with interest expenses (.818) which explains that increased interest expenses are able to push up the interest income by making available the funds for disbursements and investments.

Regression Analysis (R-Square): R-square determines the extent to which an independent variable affects the dependent variable. Following table 16 shows the values of R-square for variables.

Table 16 indicates that in case of all the 12 companies, two most important variables which are showing maximum R-square values are interest income as percentage of capital employed and interest expenses as percentage of capital employed. Overall, it can be concluded that return on capital employed (profitability) is highly affected by the variations in the interest income and interest expenses, and if the profitability of the companies has shown a downward trend, it is only because of the variations in these two components.

## Conclusion

From the above analysis, it can be concluded that as far as the overall profitability of the housing finance companies is concerned, it has gone down as depicted by the falling trend of return on capital employed. Following are the some issues which come into light:

- In large-sized companies like HDFC, HUDCO, Can Fin Home Finance Limited, Dewan Housing Finance Limited, GIC Housing Finance Limited and GRUH Finance Limited, almost all the independent variables have positive correlation with return on capital employed, though the overall return on capital employed of these companies has also shown some decreasing trend, but on the whole, these companies are in a position to balance their expenses and revenue and generate resources and business for their companies by efficiently utilizing their borrowing to enhance the interest and non-interest income.
- Companies like DHFL, Vysya Home Finance Limited, IDBI Home Finance Limited, LIC Housing Finance

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limited, PNB Housing finance limited and Sundram Home finance limited are showing some of the variables negative correlation with return on capital employed. The prominent among those are Non-interest income, Operating and administrative expenses and employee costs. All this reflect that housing finance companies are facing tough to increase their business as they are stiff competition from the large sized companies and their employee and administrative costs are increasing which ultimately downsizing their profitability. These may be due to poor Human resources management policies and increasing non – interest expenditure especially employees costs because of overstaffing and less productive work.

- The most common thing which is reflected in the analysis of all the companies is the positive correlation of interest income and interest expenditure as percentage of capital employed with return on capital employed.
- Falling ROCE of almost all the companies reflect that they are facing stiff competition from the banks and working on thinner margin because in spite of increase in the home loan disbursements of all the companies interest rate margin in decreasing which ultimately reduces the overall profitability.
- Housing finance companies has to spread out geographically while ensuring consistency in the processing and service standards.

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Table 1  
(Return on Capital employed of Selected Companies: 1999-00 to 2006-07)

Table 2  
One-Sample Statistics (Combined): ROCE

Name of the Company	(ROCE)	1999-00	2000-01	2001-02	2002-03	Std. Deviation	2004-05	Std. Error Mean	2006-07
Canfin Home finance		14.05	12	13.68	8	12.61	10.11	5.88	8.41
Doha Housing Finance Limited		14.38	12	14.33	8	13.21	11.01	3.74	9.32
Doha Home Finance Limited		12		8	11	9.52	1.45		0.42
Doha Housing Finance Limited		14.2	12	12.8	8	12.81	10.64	1.10	9.43
GIC Housing Finance Limited		11.62	12	11.53	8	10.89	8.35	1.59	8.4
GIC Housing Finance Limited		13.25	12	13.43	8	13.06	11.35	1.27	8.57
Home Finance Limited		14.12	12	13.64	8	13.06	10.91	8.84	0.33
Home Finance Limited		11.17	12	11.61	8	10.72	10.37	0.79	8.27
IDB Housing Finance Limited		0		1.94	8	8.76	7.78	2.61	6.86
PNB Housing Finance Limited		14.3		13.54	8	12.88	8.98	1.95	8.2
Sundram Home finance limited		12		13.31	8	13.12	11.02	3.01	8.69
ICICI Bank Home finance limited		0.87		6.22	8	10.2	8.09	3.88	7.62
ICICI Bank Home finance limited		0.48		9.11		12.13	6.2	6.63	7

Table 4

Table 5  
Correlation Co-efficient Matrix: 1999-00 to 2006-07 (Dewan Housing Finance Limited-H2)

	Y	X1	X2	X3	X4	X5
Y	1	**	**	**	**	
X1	.954**	1	*	**	**	
X2	.837**	.757*	1	*	**	
X3	.996**	.955**	.790*	1	**	
X4	.958**	.949**	.876**	.936**	1	
X5	.432	.546	.175	.456	.493	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

Table 6  
Correlation Co-efficient Matrix: 1999-00 to 2006-07 (DHFL Vysya Home Finance Limited- H3)

	Y	X1	X2	X3	X4	X5
Y	1	*		**	**	
X1	.738*	1				
X2	.271	-.205	1			
X3	.965**	.695	.156	1	**	*
X4	-.885**	-.493	-.168	-.925**	1	**
X5	-.692	-.153	-.277	-.794*	.898**	1

\* . Correlation is significant at the 0.05 level (2-tailed).

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 7  
Correlation Co-efficient Matrix: 1999-00 to 2006-07 (GIC Housing Finance Limited-H4)

	Y	X1	X2	X3	X4	X5
Y	1	**		**		**
X1	.940**	1		**		**
X2	.247	.321	1			
X3	.917**	.933**	.427	1		**
X4	.610	.570	.488	.589	1	
X5	.897**	.883**	.556	.953**	.675	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 8

**Correlation Co-efficient Matrix: 1999-00 to 2006-07 (GRUH Housing Finance Limited-H5)**

	Y	X1	X2	X3	X4	X5
Y	1	**	**	**		*
X1	.951**	1	**	**		**
X2	.892**	.906**	1	**	*	**
X3	.994**	.923**	.873**	1		
X4	.585	.693	.745*	.513	1	**
X5	.756*	.850**	.887**	.703	.951**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

Table 9

**Correlation Co-efficient Matrix: 1999-00 to 2006-07 (HDFC Ltd-H6)**

	Y	X1	X2	X3	X4	X5
Y	1	**	**	**	*	*
X1	.923**	1	*	**		*
X2	.928**	.818*	1	**	**	**
X3	1.000**	.926**	.920**	1		*
X4	.714*	.662	.890**	.705	1	**
X5	.828*	.760*	.951**	.819*	.978**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

Table 10

**Correlation Co-efficient Matrix: 1999-00 to 2006-07 (Housing and Urban Development Corporation Ltd-H7)**

	Y	X1	X2	X3	X4	X5
Y	1			**	*	
X1	.640	1		*		
X2	.207	.511	1			
X3	.844**	.766*	.126	1		
X4	.713*	.512	.335	.664	1	
X5	.109	.187	.095	.178	.117	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

Table 11

**Correlations Co-efficient Matrix: 1999-00 to 2006-07 (IDBI Home Finance Limited-H8)**

	Y	X1	X2	X3	X4	X5
Y	1	**		**		
X1	.927**	1		**		
X2	-.395	-.503	1		**	**
X3	.985**	.919**	-.423	1		
X4	-.150	-.290	.947**	-.161	1	**
X5	-.223	-.346	.966**	-.225	.992**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 12  
Correlation Co-efficient Matrix: 1999-00 to 2006-07 (LIC Housing Finance Limited-H9)

	Y	X1	X2	X3	X4	X5
Y	1	**		**		
X1	.972**	1		**		
X2	.596	.689	1			
X3	.998**	.964**	.590	1		
X4	-.582	-.448	-.174	-.628	1	
X5	.583	.504	.209	.603	-.557	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 13  
Correlations Coefficient Matrix: 1999-00 to 2006-07 (PNB Housing Finance Limited-H10)

	Y	X1	X2	X3	X4	X5
Y	1	*	*	**		
X1	.730*	1	**			
X2	.738*	.914**	1			
X3	.965**	.686	.699	1		
X4	-.662	-.041	-.022	-.632	1	
X5	.529	.544	.505	.400	-.391	1

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 14  
Correlation Coefficient Matrix: 1999-00 to 2006-07 (Sundram Home Finance Limited-H11)

	Y	X1	X2	X3	X4	X5
Y	1	*		**		*
X1	.799*	1	**	**		**
X2	-.603	-.942**	1	*		**
X3	.984**	.878**	-.728*	1		**
X4	.367	.630	-.649	.455	1	
X5	-.789*	-.956**	.924**	-.877**	-.636	1

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 15  
Correlation Co-efficient Matrix: 1999-00 to 2006-07 (ICICI Home Finance Limited-H12)

	Y	X1	X2	X3	X4	X5
Y	1	**		**		
X1	.888**	1		*		
X2	.245	.437	1			
X3	.986**	.818*	.150	1		
X4	-.147	-.349	-.402	-.122	1	
X5	.491	.682	.581	.359	-.530	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\*. Correlation is significant at the 0.05 level (2-tailed).

Table:16

Company		X1	X2	X3	X4	X5
<b>H1</b>	r	0.99	0.764	0.999	0.807	0.851
	<b>R<sup>2</sup></b>	0.9801	0.583	0.998	0.651	0.724
<b>H2</b>	r	0.954	0.837	0.996	0.958	0.432
	<b>R<sup>2</sup></b>	0.91	0.7	0.992	0.917	0.186
<b>H3</b>	r	0.738	0.271	0.965	-0.885	-0.692
	<b>R<sup>2</sup></b>	0.544	0.073	0.931	0.783	0.478
<b>H4</b>	r	0.94	0.247	0.917	0.61	0.897
	<b>R<sup>2</sup></b>	0.883	0.061	0.84	0.372	0.8046
<b>H5</b>	r	0.951	0.892	0.994	0.585	0.756
	<b>R<sup>2</sup></b>	0.904	0.795	0.988	0.342	0.571
<b>H6</b>	r	0.923	0.928	1	0.714	0.828
	<b>R<sup>2</sup></b>	0.851	0.861	1	0.509	0.685
<b>H7</b>	r	0.64	0.207	0.844	0.713	0.109
	<b>R<sup>2</sup></b>	0.4096	0.0428	0.712	0.508	0.0118
<b>H8</b>	r	0.927	-0.395	0.985	-0.15	-0.223
	<b>R<sup>2</sup></b>	0.859	0.156	0.97	0.0225	0.0497
1.Canfin Home Finance (H-1)	r	0.977	0.596	0.998	0.582	0.583
	<b>R<sup>2</sup></b>	0.954	0.355	0.996	0.338	0.339
2.DHFL Vysya Home Finance Limited (H-2)	r	0.73	0.738	0.965	-0.662	0.529
	<b>R<sup>2</sup></b>	0.532	0.544	0.931	0.438	0.279
3.Dewan Housing Finance Limited (H-3)	r	0.799	-0.603	0.984	0.367	-0.789
	<b>R<sup>2</sup></b>	0.638	0.363	0.968	0.134	0.622
4.GIC Housing Finance Limited (H-4)	r	0.888	0.245	0.986	-0.147	0.491
	<b>R<sup>2</sup></b>	0.788	0.06	0.972	0.021	0.241

Companies-R-Square

Appendix 1  
Name of the Company

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Appendix 2

Table for independent variables used in Bi-variate correlation Analysis:

Operating Expenses/Capital Employed Name of the Company	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	
Sundram Home Finance	0.482873	0.456432	0.099333	10.089181	9.0389607	81	0.396361	0.3395628	0.312008
Dewan Housing Finance Limited	0.38545504	0.51894813	0.9600654	10.5993111	9.90538892	580458826	0.503672789	0.366978	
Dewan Vysya Home Finance Limited	0.65162635	0.64145671	0.69942514	10.6835695	9.96822675	25062426	0.93998808	0.804309	
SIF Housing Finance Limited	0.2649071	0.4683274	0.634284	10.6649973	8.92888926	910901216	0.861199.9	0.788223	
GRUH Housing Finance Limited	0.433642	0.473254	0.207468	10.2956271	9.9791925	84040953	0.7387611	0.32723	
GRUH Limited	0.180919	0.18247	0.1539	9.133287	8.212334	0.22011	0.1382145	0.137724	
HDFC	0.577484	0.606819	10.206359	9.0282388	8.26690526	42050355154	0.5230445	0.508645	
HDFCO	0.190041	0.21883	0.242276	0.19155	0.169338	79.101713	0.202327	0.204343	
HDFCO	0.255524	0.297738	10.280402	9.826798	8.70256628	720.224261	0.210782	0.183033	
HDF Home	0.000124	3.0059612	1.243926	0.773909	0.638066	0.400265	0.269623	0.233829	
HDF Home Finance Limited	0.424255	0.839216	0.891678	8.021778	9.26071682	0.86	0.06993	0.122802	
HFC Housing	0.187591	0.210307	0.109215	10.192136	0.188098	0.147738	0.18033	0.154872	
HFC Housing Finance Limited	0.404789	0.579836	0.389783	10.884469	0.400522	0.402073	0.388198	0.535302	
HNS Housing	1.08077503	0.9138439	0.968075	0.598628	0.1506916	0.537150	0.504692	0.046209	
HNS Housing Finance Limited	0	4.01	8.54	8.52	4.80	6.21	6.82	7.22	
Sundram Home finance limited	0.50675836	0.01098687	0.8039563	2.0254777	0.06074915	0.0562672	0.309219	0.1532715	
ICICI Bank Home finance limited	0.34	8.58	11.02	11.02	10.14	3.65	6.14	6.28	
ICICI Bank Home Finance	2.641056	2.687728	1.89194	1.55243	1.199059	1.10564	0.773126	0.775452	
Sundram Home Finance	2.933134	2.520086	1.94912	9.407883	7.214762	8.081702	6.955799	5.299222	

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# CORPORATE CAPITAL STRUCTURE: THE CASE OF INDIAN TEXTILE FIRMS

Karam Pal ★ Monika Verma ★★

*The typical financing decisions include how much debt and equity to sell. The excess use of debt may endanger the very survival of a firm; on the other hand, the conservative policy as well may deprive its equity holders to enjoy on the principle of trading-on-equity, as the debt is considered relatively cheaper source of finance that may in-turn magnify the return of equityholders. The main objective of the paper is to assess and analyze of Indian Textile Industry. The paper empathizes on diverse determinants that facilitate the firm to resolve about the debt-equity choices. The analysis presented in the paper for leading forty firms of the Textile Sector for the period (1996-2006), reveals that the factors like profitability, asset composition and growth rate are leading determinants followed by factors like cost of debt, tax shield and firm size. Furthermore, the analysis confirms and authenticates the Pecking-Order-Theory regarding relationship between profitability and debt-equity. The paper concludes that profitability, asset composition and growth rate, which can play an extensive task in shaping the capital structure of Indian textile firms.*

**Keywords:** Capital structure, target leverage, pecking order theory, trade off theory, Indian textile sector, profitability, assets composition, growth rate.

One of the fundamental questions in the corporate finance for a firm is to decide on a financing grid ranging from issuing equity or raising debt or mix of two. The financing or capital structure decision of the firm is a significant managerial decision, which influences the share holders return and risk to the ultimate shareholders of the firm. The market value of the share may be affected by the capital structure decision. Modigliani & Miller (1958) showed that the value of the firm is independent of its capital structure. Their prepositions were that the value of the levered firm is the same as the value of the unlevered firm and the risk to equity holders rises with leverage, hence required return to equity holders rises.

Some modern theories dominated that capital structure of the firm matters (Ross 1977, Myers 1984, Titman & Wessels 1988, Brealy & Myers 1991 and Rajan & Zingles 1995). There has been a controversy in financial literature as to whether the proportion of debt and equity in a firm's capital structure affects its value. Firm's decision of choosing a combination of debt and equity depends on some factors. In the recent time various theories have been proposed to explain the determinants of capital structure of the firms. The decision on the capital structure not only

influences the wealth of share holders but also affects the market value of the share. Any change in the capital structure will affect the debt-equity mix primarily and the weighted average cost of capital consequently, this affects the value of the firm. Similarly capital structure policy and dividend policy are interrelated and in turn re linked to financing decisions. The dividend policy affects the profit available for re investment. Retention of profits for re investment strengthens the share holder's equity position. Hence capital structure has a bearing on the cost of capital, net profit, earning per share, dividend pay out ratio and liquidity position of the firm. These variables, coupled with others determine the value of the firm. Determination of capital structure involves many considerations. Attitude of managers with regards to financing decision are influenced by the factors like debt capacity of the firm, financial flexibility, dilution of control

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and changing market sentiments. In this context the objective of this paper is to study the major determinants of corporate capital structure in case of textile firms.

The objective of this paper is to have a deep insight into the problem faced by Indian textile sector with regard to debt-equity choices to meet the funds requirements. An attempt has been made to examine the various factors influencing capital structure decisions. Hence the paper has following objectives:

- To assess and analyze the capital structure of select textile firms in India, and
- to emphasize the leading determinants of capital structure in case of Indian textile industry.

## I Review of Literature

The basic results of Modigliani & Miller (M&M) (1958) commonly called their Proposition I: The value of the levered firm is the same as the value of the unlevered firm. The Nobel Prize winning work of Modigliani & Miller on “what does and what does not matter in capital structure decisions” is remarkable. Yet there is still significant debate about the costs and benefits of a more or less levered capital structure. Modigliani & Miller (1977) introduced personal income tax into the analysis and stated that for wide range of value of dividend, interest and corporate tax rates, “the gain from leverage vanishes entirely or even turns negative”. The subsequent writers on capital structure relaxed assumptions made by M&M and developed following theoretical models of capital structure: (i) Tax consideration based model (ii) Agency theoretic model (iii) Asymmetric information model or pecking order hypothesis (iv) Models based on product and (v) Models based on corporate control.

Donaldson’ (1961) pecking order theory describes how firms make their financing decisions. He observes that managers try to fund new investment with retained earnings rather than debt. Das Gupta and Ying (2001) have argued that the pecking order hypothesis and the trade off theory of capital structure choice should be viewed as complementary rather than alternative ideas. They have also argued that an implication of pecking order hypothesis is that the firms with high growth potential should have more debt as a proportion of total assets.

Jensen & Meckling (1976) argued that there exists a natural conflict in the interest of outside shareholders (principals) and the managers (agents) of a firm leading to the managers making sub-optimal decisions at the cost of shareholders. Jensen & meckling identified two types of

conflicts; conflicts between shareholders and managers and the conflict between the debt holders and equity holders.

Ross (1977) and Leyland& Pyle (1977) worked on Asymmetric information Model. The main implication of Ross Model is a positive association between leverage and the value of the firm. Leyland & Pyle have argued that the promoters’ stake can be used as a signal of quality. They argue that managers are penalized for bankruptcy on the one hand and rewarded for any rise in the value of the security on the other. Myers & Majluf (1984) have argued that if managers have better information about the future investment opportunity of the firm than the potential investors, they might find it difficult to get the external finance. This is because outsiders ask for a premium in order to compensate for the possibility of funding a bad firm. A modified version of the pecking order theory was proposed by Myers and Majluf suggesting that information asymmetries and bankruptcy costs also influence a firm’s capital structure choice.

Titman (1984) suggests that customers avoid purchasing a firm’s products if they think that the firm might go out of business and therefore not stand behind its products especially if the products are unique. Consequently firms that produce unique products might avoid using debt.

Brander & Lewis (1986) hypothesize that debt can be used as a “credible threat” to reduce the number of units produced by competitors. By taking on substantial debt, this story goes. A firm indicates that it will produce a lot of units, regardless of circumstances, because it must generate enough revenue to service its debt. Brander & Lewis claim that competitor will produce less in response to their threat.

Brennan & Schwartz (1988) argue that the call or conversion feature makes convertible debt relatively insensitive to asymmetric information (between management and investors) about the risk of the firm. Stein (1992) argues that if firm privately know that their stock is undervalued they prefer to avoid issuing equity.

Demirguc-Kunt and Maksimovic (1996) investigate empirically the effects of stock market development on the financing choice of firms and find that firms in country with an underdeveloped stock market first increase their debt-equity ratios as their stock markets develop and that the debt-equity finance are complementary.

Rajbhandary (1997) has used a dynamic adjustment model in Indian context and has found that the lagged values of

capital structure ratio are positively related with the current values of the capital structure ratio which reflects the dynamics implied in. Kakani (1999) has found that the leverage ratio is positively related with the collateral value of assets, size of company and that is positively related with the profitability and tax shields.

Graham & Harvey (2001) survey fortune 500 companies and revealed that the earnings volatility, tax advantage of interest on debt and credit rating are the important determinants of debt policy in large firms. Myers (2001) emphasized that higher leverage ratios tend to be associated with a high proportion of tangible assets as well as low profitability. In a study by Bhanduri (2002) capital structure choice is found to be influenced by such factors as growth, cash flow, size, product and industry characteristics.

In a study by Anand (2002) retained earnings were the most favoured (89%) source of finance. Loans from financial institutions (59%) and private placement (32.9%) of debt were the next most widely used source of finance. Only 16.9% of the respondents considered equity as the most preferred /preferred source of finance. Bhole (1980-2000) has shown that the leverage ratio is positively related with tax deductibility, supply factor, cost of equity, growth rate, financial balance and inflation rate and is negatively related with the profitability and cost of borrowings.

Bhole & Mahakud (2004) in their study of trends and determinants of capital structure in respect of public and private companies developed the panel data model. They concluded that two variable, size and liquidity are the significant determinants of corporate capital structure.

Mehrotra (2005) concluded that managers make conscious decisions to match assets and liabilities with the aim of limiting expected costs of financial distress and protecting their companies' ability to carry out their investment plans. Rastogi, Jain & Yadav (2006) compared the debt financing practices of public sector, private sector and foreign controlled companies in India and observed that there is a shift towards preference for short term debt as against long term debt. Ownership control was observed to be a significant factor in influencing the debt financing decisions in terms of its composition and maturity structure.

Seetanah, Padachi & Ronoowah (2007) in their study of 38 firms of stock exchange of Mauritius for the period of 1994-2004 showed that the most important factor influencing the capital structure choice are profitability,

size, tangibility and liquidity. Other factors like business risk, non debt tax shield effects and growth opportunities do not seem to affect the capital structure.

Serrasqueiro & Nunes (2007) investigates determinants of debt for a panel data covering 162 Portuguese companies for the period 1999-2003. A negative relationship between profitability and debt was found while a positive relationship between size and debt was found.

The foregoing discussions on review of empirical studies unveil that Tangibility, Size, Growth Opportunities, Profitability, Non debt tax shield, Cost of borrowing, Cost of equity, Bankruptcy cost, and Tax rate are expected to have an impact on capital structure decisions of corporations. However, as such no exclusive study has been carried out on Indian Textile Industry, which provides the researchers an opportunity and rationale to undertake such a study.

## II Research Design and Method

Research Hypothesis: Taking into consideration the review of diverse research studies in the field, the following hypotheses have been set for the paper:

- The debt-equity choice is negatively influenced by the cost of debt.
- The larger firms tend to have more debt.
- The firms with high fixed assets tend to have lower debt.
- The debt-equity choice is negatively influenced by profitability of the firm.
- The debt-equity choice is positively influenced by the growth rate of the firm.
- There is positive relationship between tax shield and debt-equity choice of the firm.

Sample Design: The study is based on 40 textile firms listed on National Stock Exchange over a period ranging from 1995-96 to 2005-06. The rationale behind selecting this group of industry is that it is one of the largest and one of the most dominated sectors in India in terms of output, employment and foreign exchange earnings. The textile industry is multi fiber based using cotton, jute, wool, silk, manmade and synthetic fibers. For this paper textile means textile & allied products. For selecting the firm, the sample firm should be continuously listed on stock exchange and should have financial data available for eleven years of study.

Data Source: For this paper secondary data has been used. The financial data of 40 companies representing textile sector was obtained from the corporate database (Prowess), of the Centre for Monitoring Indian Economy (CMIE).

Measures for the Variables: For the present paper seven independent variables have been chosen to analyse the impact on dependent variable. The measures for the variables are given in detail in the Table-1.

Key study relationship for the model can be represented mathematically as;

Based on the above discussion so far, we may specify an empirical static capital structure model as given below;

Where:

- D/E = Debt-Equity Ratio;
- á = Constant;
- CD = Cost of Debt;
- FS = Firm Size;
- AC = Asset Composition;
- PR = Profitability;
- GR = Growth Rate;
- TS = Tax Shield; and
- e = error term

Statistical Tools for Analysis: We take the help of Correlation Matrix where we can depict the existence of correlation between the variables both explained and explanatory. Apart from means and standard deviation Regression Model has been used to find out the influence of independent variables on dependent variables. Further 't' has been carried out to check the level of significance of regression coefficients. Durbin-Watson d test has also been applied to detect any auto correlation among residuals. Variance Inflation Factor (VIF) test has been applied to eliminate such variables from analysis to avoid the possibility of 'multicollinearity' problem and to achieve significant results.

### III Results and Discussion

The results of the analysis are presented in this section. Apart from means and standard deviation, the description and analysis is based upon the correlation and regression results given in tables 2.

Table 3 gives the summary statistics for the whole period under study. The total number of observations is 440. The means & standard deviation of all dependent and independent variables show that the average debt-equity of Indian textile industry is 1.12 during the study period. Further the overall mean growth rate of textile industry has been worked out as 10.55 and the profitability as 9.5.

In order to ascertain whether the mean value of debt equity ratio has differed among companies, Analysis of Variance (ANOVA) Test has been performed and results are presented in table: 4. It is observed that debt-equity is independent of time.

Table 4 produces the correlation matrix for the whole period of 11 years. It is observed that profitability is highly correlated with debt-equity which produces a figure of -0.538. Asset composition and firm size are positively associated to the debt-equity while tax shield has a negative relationship. The results highlight that the firms employ less debt as their profitability increases and firms with lower fixed assets tend to have lower debt. Among the independent variables, AC negatively correlated with TS. Variables CD and GR are found to have no significant effect on debt-equity.

Next main analysis in this study is Regression Analysis. This technique is applied to find out what are the different variables that determine the capital structure of Indian Textile Corporate Sector. The regression results for Debt-Equity are presented in table 5 for 11 years time periods.

Looking at the empirical results we can say, profitability of the firm is negatively and significantly related to debt-equity. This result is consistent with earlier studies (Myers 1984, Pandey 2000). Profitability is observed an important determinant of debt equity choice of Indian Textile Sector. The positive relationship between profitability and debt- equity shows that firms acted in the line of Pecking Order Theory and in contradiction with the Classical Financial Theory.

It is observed that firm size has a positive relationship with the debt-equity, which is not significant, while correlation between these two variables is significant at 1% level of significance. Thus the results are consistent with Trade off theory as far as Indian Textile sector is concerned. This positive relationship accepts the hypothesis that larger firms tend to have more debts.

The result of positive and significant relationship between asset composition and debt-equity are consistent with Trade off Theory (Firms with high fixed assets tend to have higher debt ratio). This positive relationship rejects the hypothesis that firms with high fixed assets tend to have lower debt.

It is documented from the analysis that a negative relationship exists between tax shield and debt-equity, which means there is no significant effect of corporate Tax on financial decisions. Cost of debt is an important

determinant of debt-equity, but insignificant in this study having moderate negative correlation with debt-equity. Cost of debt, firm size and tax shield are having no significant impact on debt-equity choice of textile firms.

The adjusted R<sup>2</sup> is reasonably high and DW statistics show that there is no auto correlation problem. The DW statistics comes as .991. VIF values shows that there is no problem of 'multicollinearity'. The regression coefficient of profitability has negative sign and is statistically significant in this period of study.

#### IV Conclusion

It is problematic for both developed as well as under developed economy that how optimal structure will be achieved. Neither Financial theory nor empirical research provides an appropriate answer for it. The question of optimal capital structure choice remained unanswered till now. In this paper, we made an attempt to study the determinants of debt equity ratio of Indian Textile industry. The determinants of capital structure are analysed for the period of eleven years of time period. The above discussion regarding empirical examination of different hypothesis as mentioned earlier yields the results that do not conform to our hypothesis most of the times. Firm size is the most significant factor affecting the capital structure of firm in developed literature, is found least significant in our study. In this paper, profitability, asset composition and growth rate are observed to be the most significant factors deciding the capital structure instead of cost of debt, firm size and tax rate.

This study is primarily based on the secondary data base so whatever the limitation the published data consists, the study also suffers with the same. So to that extent the application of the findings of study is limited.

The factors affecting capital structure of textile may not be same for all types of manufacturing firms. This considered only the textile sector. Hence there is a scope for the further research to be undertaken to each manufacturing sector separately.

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Table 1

Cost of debt (CD)	Interest on long term loans/total long term loans
Firm Size (FS)	Total assets
Asset Composition (AC)	Net fixed assets/total assets
Profitability (PR)	Return on net worth
Growth Rate (GR)	Annual growth rate of total assets
Tax Shield or effective tax rate (TS)	Tax/profit before tax+depreciation

Table 2  
Summary statistics

Source: Computed

Table 3  
ANOVA

Table 4  
Correlations Matrix

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Source: Computed

Table 5  
Multiple Regression results- Dependent Variable: Debt-Equity

Variable	DE	Efficient	PR	t-statistics	Significance	CD	VR	FS
DE		-0.004	-.538(**)	0.529	0.597	-.036	1.004	.155(**)
PR		-.538(**)	1	0.941	0.347	.011	1.477	-.131(**)
AC		-.290	.115(*)	18.245	0.000	.005	2.060	-.150(**)
AR		-.274	-.198(**)	-11.269	0.000	-.014	1.555	.219(**)
CB		-.036	.011	5.101	0.000	1	1.483	-.026
TS		-.044	.292(**)	-0.719	0.473	.006	1.405	.073
GR		-.021		-.007	-.039			
R-Sq		0.606						
FS		.155(**)	-.131(**)	-.150(**)	.219(**)	-.026	.073	1
Adj.R-Sq		0.599						
DW		0.991						

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# DEMOGRAPHICS OF SELF ATTRIBUTION BIAS IN INVESTMENT DECISION

Manish Mittal ★ R.K. Vyas ★★

*Self attribution is a cognitive phenomenon which makes people attributes failures to situation factors and successes to dispositional factors. Most of the investors, while making investment decisions tend to resort to mental shortcut or Heuristics to arrive at the decision easily and quickly and are likely to fall prey to behavioral biases like self attribution bias. The objective of this paper is to investigate whether Indian Investors are susceptible to self attribution bias and identify the demographic groups which are more susceptible to it. The study employs primary data collected from a convenient sample of 428 investors with the help of a structured questionnaire. The survey was carried out in Indore city (in Central India) during July – October 2006. The results indicate that individual investors are likely to exhibit self attribution bias. The differences in proneness to self attribution bias were found to be insignificant among investors belonging to different income, education, gender and age but significant among investors of different occupations.*

*Key words: Investor Psychology, Investment decision making, Self- attribution Bias, Overconfidence, Demographics.*

The traditional economic theory has always considered investors as fully rational decision making entities, taking careful account of all information. But over the past few years, behavioral finance researchers have scientifically shown that investors have behavioral biases that come in the way of their investment decision making process and lead to errors and distort their decisions. These errors because of their systematic character are often predictable and avoidable. But they continue to occur frequently and are made by both novice and professional investors alike.

One of the most extensively studied behavioral biases is investor overconfidence (Choi & Lou, 2007). It is regarded as one of the most robust finding in the psychology of judgment (DeBondt & Thaler, 1995) and defined as the systematic overestimation of accuracy of one's decision and the precision of one's knowledge (Dittrich et al. 2005). Researches have shown that investors exhibit overconfidence; in their investment and financing decision (Barber & Odean. 2000, 2001. 2002; Caballe and Sakovics, 2003; Benos and Tzafestas, 1997) and such overconfidence have implication on asset pricing (Choi & Lou, 2007; Shiller 2000).

The psychology and behavioral researchers have cited one common source of overconfidence: self attribution bias (Billett & Qain, 2005; Hirshleifer 2001; Gervais and Odean; 2001). Self attribution is a cognitive phenomenon by which people attribute failures to situation factors and successes to dispositional factors (Pompian, 2006). It refers to the

tendency of individuals to ascribe their success to themselves and their skills, talents or foresight but blaming external influences, like bad luck for their failures.

Though many studies have been undertaken by researchers to study self attribution bias little work is done to understand whether the tendency of self attribution bias varies among investors belonging to different demographic groups. Moreover none of them concentrated on Indian Investors. It is worth investigating whether investors belonging to a conservative culture like India (Hofstede, 2001) behave in the same as the investors belonging to more liberal western culture. Indian markets lack information efficiency and most of the investors resort to mental shortcut or Heuristics to make investment decision and hence are more prone to fall prey to behavioral biases like self attribution bias. The objective of this paper is to investigate whether Indian Investors are susceptible to self attribution bias and identify the demographic groups which are more susceptible to fall prey to it. Such knowledge is necessary because if it is known which group of investors are more vulnerable to self attribution bias it is possible to undertake education initiatives accordingly.

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## I Review of Literature

The financial literature largely supports that investors are overconfident. The study of overconfidence is important because it can lead to sub-optimal results (Shefrin, 2000; Barber and Odean, 2001; Dittrich et al. 2005). Overconfidence appears to be a fundamental factor for promoting high volumes of trade in speculative markets (Shiller, 2000). The reasoning is straight forward, the more certain one is of his view, the less credibility he will accord to, those of others and more likely he will be to transact at a price he perceives favorable. But owing to their Overconfidence and high trading frequency they tend to derive lower returns. Deaves, Lauders & Schroder (2005) reported overconfident individuals have higher trading frequency and have a lower net return because of the higher trading cost. Shefrin (2000) demonstrated that people who trade most fared worst, underperforming the index by 500 basis points.

It is believed that many people possess some behavioral biases like the self attribution bias (Miller & Ross, 1975) which can offer explanation of their being overconfident. Self attribution is the tendency among individuals to attribute successes or good outcomes to their abilities while putting the blame for failures or unfavorable outcomes on circumstances beyond their control or plain bad luck. Many investors think that they can time the market or pick up the next hot stock. When the market is rising, most of the stocks do well, including the stocks these people had picked and they take it as confirmation of their acumen but if the stock price falls, they cite the general condition of the economy or market as the reason for decline in the stock value (Bhandari & Deaves, 2006). The result individuals tends to recall and embellish their successes, while forgetting their defeats (Langer and Roth, 1975; Taylor and Brown, 1988) making them overconfident (Deaves, Luders & Luo, 2004).

Heimovics and Herman (1988) investigated chief executives attributions for their successful and unsuccessful performances and found no related variations. Deaux (1979) and Rosenthal, Guest and Peccei (1996) found that female managers attribute their achievement to ability less than the male managers. Howard (1984) suggested women are perceived to be more prone to attribution bias as compared to men. Women are more likely to attribute dispositional factors for one's behavior while men are more likely to invoke situational factors as the cause of a person's behavior (Arkin & Duval, 1975; Burger and Rodman, 1983).

## II Research Design and Method

The study employs primary data collected by communicating with the respondents with the help of a structured questionnaire. To study the level of biased self-attribution in Investors two questions were asked to the respondents. They were given similar conditions and were asked what they feel about the decision, if they had and their acquaintance had taken the same decision. Through the second part the demographic details were collected either as binary variable (Gender), categorical variable (occupation) or ordered categorical variables, (age, education and income). Before undertaking the survey, pilot test of the questionnaire was undertaken with 40 respondents. Their views were incorporated in the final questionnaire. A Hindi version of the questionnaire was also used in the survey to include responses of investors not comfortable with English language. The study is based on responses obtained from the respondents belonging to wide cross section. The study employed non probabilistic judgmental sampling method to select the respondent. The final sample size was 428.

Statistical tools and software

The statistical tools used in the study were correlation, multivariate regression and ANOVA. The analysis of data was carried out using Statistical Package for the Social Sciences (SPSS) 12.0 for Windows. The survey was carried out in Indore city (in Central India) during July – October 2006.

## III Results and Discussion

Demographic Profile of the sample

The total numbers of questionnaire distributed were 600. We received 467 questionnaires. The final sample size, after discarding the questionnaires with missing responses, was 428. Thus the response rate was 71%. Table 1 gives demographic details of the respondents.

Table 1

Self Attribution Bias

To study self attribution bias we presented before the participants a loss-making situation and asked them whether they feel the loss was because of their mistake or bad luck. The same situation was repeated with the only difference that the decision maker now was not the individual but an acquaintance of his or her and he was an observer. The responses are tabulated in table 3 and 4. The evidence suggests that the Indian Investors exhibit

self attribution bias. While 58.2% of the respondents believe that their acquaintance had done a mistake by choosing a losing stock, only 47.4% of the respondents admit that they had taken a wrong decision and remaining 52.6% held their luck responsible for their wrong decision.

Table 2

Table 3

To test whether the difference is significant we applied chi-square test and the results suggest significant differences ( $p = 0.00$ ), thereby implying that investors are exhibiting biased self-attribution.

Table 4

Table 5

#### Demographics & Self-attribution Bias

To test whether the self attribution bias in investors varies with demographic variables the reasons perceived responsible by the participants for their wrong decision were analyzed through chi-square test. The results of the test (Table 6) indicate that the differences are insignificant for gender ( $p = .171$ ), Age ( $p = .513$ ), Income ( $p = .392$ ) and education ( $p = .972$ ). The differences, however were found to be significant among investors of different occupations ( $p = .019$ ).

Looking at the regression of self attribution bias and demographic variables, the overall fit is very poor, indicating that demographics can not be used to explain self attribution bias. However, we can tentatively also conclude that of all the demographic variables selected for study, Yearly income is the most important determinant of self attribution bias followed by education. Gender was found to have least impact on self attribution bias. While increasing education makes people more prone to self attribution bias, increasing income and age makes them less prone to self attribution bias. Males are more prone to self attribution bias than females. Business class investors exhibit more self attribution bias than their service class counterparts.

#### Conclusions and Discussions

Before we discuss the implications of the study it is important to highlight the limitations of study. The sample for the present study was a convenience sample of the investors belonging to the city of Indore which places restrictions on the generalisability of the results. However, we feel that the sample size was large enough to study the self attribution bias differences among investors having different demographic characteristics (gender, age, education, income, occupation).

## IV Conclusion

The present study demonstrates that individual investors are prone to self attribution bias. The differences in proneness to self attribution bias were found to be statistically insignificant among investors belonging to different income, education, gender and age groups. The differences were, however, found to be significant among investors classified on the basis of their occupations. The study provides evidence that Business class investors exhibit more self attribution bias than Service class investors. Of all the demographic variables selected for study, Gender was found to have least impact on self attribution bias. Our findings do not support earlier findings that men make 'actor' like and women make 'observer' like attributions (Howard, 1984). The results of this study indicate that man and women are equally prone to self attribution bias.

Every individual at some stage of the life has to go some or the other investment or manage significant amount of money and would need to make investment decision then. But their behavioral bias come in the way of their investment decisions process and distorts their decisions. One of them, self attribution bias, was studied in this paper. Self attribution bias limits individuals' ability to learn from the past mistakes because it refrain them from admitting that the wrong decision was because of their mistake and makes them believe that their 'bad luck' was responsible for their failure. Earlier researches (see Deaves, Luders & Luo, 2004) have advanced self attribution bias to explain investors' tendency to be overconfident in their investment decision. Overconfident individuals feel that they are capable of making the best decision and ignore good professional advice and end up having sub-optimal returns. They fail to realize that they are at informational disadvantage (Shefrin, 2000) and are more susceptible to make behavioral errors in their investment decisions. They are susceptible to make potentially costly mistakes in managing their investment which may lead to insufficient saving (Mitchell and Utkus, 2004) asset allocation confusion (Bentari and Thaler, 2001) and suboptimal selection (Bentari and Thaler, 2002). These biases may also lead to misallocation of resources in the economy as the result of mispricing and hence there is a need to frame regulatory and legal policies to limit the damage caused by irrationality of investors (Daniel, et al., 2002). It is not sufficient to educate investors only about the asset returns, risk and diversification but is also essential to make them aware of the pitfalls of investor psychology to warn them against likely errors and enable them to make right decisions.

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Table 1  
Demographic details of the investors

Table 2  
Factor perceived responsible for individual's bad decision

Table 3  
Factor perceived responsible for acquaintance's bad decision

Table 4  
Cross – tabulation (Factors cited for wrong decision)

Table 5  
Chi-Square Test statistics for Biased self- attribution

		Value	df	Asymp. p (2-sided)
Pearson Chi-Square		21.998	1	.000
N of Valid Cases		428		

		Factors perceived responsible for wrong decision		Total	p
		Mistake	Bad Luck		
Individual as Observer	Mistake	196	107	303	.171
Gender	Bad Luck	63	84	147	
Total	Female	203	225	428	
Total		203	225	428	
Age (in years)	Total	203	225	428	.513
	18-25	54	51	105	
	26-35	98	105	203	
	36-45	35	51	86	
	Above 45	16	18	34	
Yearly Income	Total	203	225	428	.392
	Less than Rs. 100,000	51	56	107	
	Rs.100,001 - 250,000	77	101	178	
	Rs. 250,001 - 400,000	55	47	102	
	Above Rs. 400,000	20	21	41	
Total	203	225	428		

<b>Occupation</b>	Service	106	108	214	.019
	Business	48	68	116	
	Housewife	7	21	28	
	Professional	34	25	59	
	Student	7	2	9	
	Other	1	1	2	
	Total	203	225	428	
<b>Education</b>	H.Sc.	9	10	19	.972
	Graduate	72	83	155	
	Post Graduate	84	88	172	
	Professional	38	44	82	
	Total	203	225	428	

Table 6

Regression analysis between Demographics and Biased self-attribution.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.111(a)	.012	.001	.43607

a Predictors: (Constant), Occupation, Education, Yearly Income, gender, Age(in years)

ANOVA(b)

a Predictors: (Constant), Occupation, Education, Yearly Income, gender, Age(in years)

b Dependent Variable: Self Attribution Bias

Coefficients(a)

a Dependent Variable: Self Attribution Bias

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# EMERGING PATTERN OF DIVIDEND IN INDIA SINCE 1991

B.S. Bodla ★ Rajesh Kumar ★★

*Dividend decision is one of the most important functions of finance manager of joint stock companies. The relevance of the subject emanates from the long debate about the relationship between payout and valuation of the firm. Since 1991, the year of initiation of financial sector reforms and the liberalization process Indian corporate sector have experienced sea changes in connection to business policies and strategies. In this paper, an attempt has been made to bring out the changes taking place regarding dividend practices of Joint Stock Companies in India. This study is based on secondary data for a period of 16 years from the year 1991 to 2006. Beside others, the study brings out that the average dividend payout ratio has been ranging from 17.49 percent to 34.91 percent over the study period and no significance variation exists across the industries in so far as dividend payout ratio is concerned. However both dividend per share and average dividend paid by various industries differs significantly.*

*Key Words: Dividend per share; Average dividend; Dividend pay out ratio.*

Dividend decisions involve ‘deciding how much dividend should be paid (payout ratio) and in what form should it be paid to the shareholders’. The underlying objective of all financial decisions is to maximize shareholders wealth. So, it may be safely said that dividend policy of a firm should be geared keeping this direction in view as it may influence value of a firm. The dividend decision is taken in the light of the investment opportunities available. To resolve the dividend puzzle, many researchers and other finance experts have developed and empirically tested various models to explain dividend behaviour. In 1961, Miller and Modigliani (M & M) initiated rigorous analysis of the topic. However, it is only in the last two decades the topic has come in to full bloom and “dividend policy” becomes one of the most controversial subjects in the area of finance. Finance scholars have engaged in extensive theorizing to explain why companies should pay or not pay dividends.

Brealey and Myers (2002) have enlisted dividend policy as one of the top ten puzzles in finance. A number of conflicting theoretical models, all lacking strong empirical support, define recent attempts by researchers in finance to explain the dividend phenomenon. But to come out with concrete conclusion, intensive study of various theoretical models having long period data together with empirical proof is mandatory. Some researchers have analyzed the dividend behaviour of corporate firms in

Indian context. Krishnamurthy and Sastry (1971), Mahapatra and Sahu (1993), Bhat and Pandey (1994), Narasimhan and Asha (1997), Reddy (2002) and Monica Singhania (2007) are some examples of empirical research carried out in India in the field of dividend decisions. However, we still are trying to establish - What is the dividend payment pattern of firms in India? and What are determinants of dividend policy? This paper is an effort to study the pattern of dividend followed by corporates in India belonging to four industries namely Chemical, Machinery, Textile and Metal & Metal Products.

## I Review of Literature

A number of Studies have been conducted to analyze corporate dividend behavior. Lintner’s (1956) study is perhaps one of the pioneering studies on corporate dividend policy. Lintner’s major findings were: (a) Managers focus on the change in the existing rate of dividend payout, not on the amount of the newly established payout as such; (b) The primary determinants of change in dividend payout are the “most recent earnings” and the “past dividends paid”; (c) Dividend

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decided in the previous year (i.e., existing rate of dividend) is considered as the “central benchmark” by the management while declaring the current level of dividend; and (d) There is a propensity to move towards some “target payout ratio” for most companies.

Numerous other researchers have contributed towards dividend decision-making. Some outstanding works among them are: Brittain (1966), DeAngelo and DeAngelo (1990), Kevin (1992), Benartzi, Michaely and Thaler (1997), Tai, Liu and Wei (2005). As the present work concentrates on Indian corporate sector, the review of studies pertaining only to India is given here.

Khurana’s (1985) study on dividend decision covered 68 companies – 12 each in chemicals and electrical goods, 14 in general engineering, and 15 each in sugar, and cotton textiles. Majority of companies considered the dividend decision to be a “primary and active” decision variable in their financial policymaking. His study revealed that only half of the companies under examination were able to follow a stable dividend policy.

Mahapatra and Sahu (1993) analyze the determinants of dividend policy using the models developed by Lintner (1956), for a sample of 90 companies for the period 1977-78 to 1988-89. They find that cash flow is a major determinant of dividend followed by net earnings. Further, their analysis shows that past dividend – and not past earnings – is a significant factor in influencing the dividend decision of companies.

Bhat and Pandey (1994) study the managers’ perceptions of dividend decision for a sample of 425 Indian companies for the period 1986-87 to 1990-91. They find that on an average, profit-making Indian companies have distributed about one-third of their net earnings and that the average dividend payout ratio is 43.6 percent. They also find that the average dividend payout ratio is 54 percent for the samples of both profit making and loss-making companies and the average dividend rate is in the range of 14.3 percent to 19.2 percent. They also observe variation in dividend policy of different industries. Further, on the basis of a primary survey of those 425 companies, they find that managers perceive current earnings as the most significant factor influencing their dividend decision, followed by patterns of past dividends. They also find two other variable (i.e., increasing equity base and expected future earnings) to have a significant influence. However, they find ‘industry’ to have the least influence on dividend, which has been contrary to the expectations.

Garg, Verma and Gulati (1996) analysed 44 joint stock

companies from the textile industry in India regarding the determinants of dividend policy and found that in the developing economies, particularly in Indian textile industry although none of the models has proved the best fit, Linter’s model of dividend behaviour has been proved the best fit than any other model analyzed. The most significant factor that influenced the dividend decision in the textile industry in India turned out to be sustained growth in earnings of the companies.

Narasimhan and Asha (1997) discuss the impact of dividend tax on dividend policy of companies. They observe that the uniform tax rate of 10 percent on dividend as proposed by the union budget 1997-98, alters the demand of investors in favor of high payouts-rather than low payouts-as the capital gains are taxed at 20 percent in the said period. Mohanty (1999) finds that in most bonus issue cases, companies have either maintained the pre-bonus level or only decreased it marginally, there by increasing the payout to shareholders.

Reddy (2002) examines the dividend behavior of Indian companies over the period 1990-2001. Analysis of dividend trends for a large sample of stocks traded on the NSE and BSE indicate that the percentage of companies paying dividends has declined from 60.5 percent in 1990 to 32.1 percent in 2001 and that only a few companies have consistently paid the same levels of dividends.

Singhania (2005) examined the trends in dividend payout of select Indian companies over the period 1992-2004. The study is based on 590 companies listed on the Bombay Stock Exchange, and the data is collected from the CMIE Prowess database. Dividend of Payout Ratio (adjusted for bonus and right) is the main variable used in the study for the purpose of analyzing the trends in dividend payment pattern. These trends indicate that the sample companies, which declared dividend in any given year, declined over the period of study from 448 companies in 1992 to 376 companies in 2004. However, the average dividend payout ratio increased significantly along with showing a volatile trend ranging from about 25-68 percent during 1992-2004. In addition, wide industry-wise fluctuations were visible and a major proportion of the sample companies (over 50 percent through out the period of study) followed a dividend policy of part retention and part distribution of profits.

Sur (2005) conducted a study of Colgate Palmolive (India) Ltd. (CPIL) which shows that in pre-liberalisation period the company followed a more conservative dividend policy while in the post liberalization period it adopted a more stable as well as liberal one although both

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the average of and consistency in the dividend payment of the company on a per share basis stepped down remarkably. The study also reveals the better efficiency in managing earnings as well as formulating dividend policy on the part of the company during the post-liberalization era.

Sarma and Panda (2005) studied the important dividend theories and identify the factors that determine the dividend behaviour in the corporate sector in India. For the analysis, researchers construct the optimal dividend equation in the form of exponential function. The optimal dividend function is then combined with a dynamic adjustment function to allow the partial adjustment of actual dividends to 'desired' or 'optimal' dividend in a given year. The empirical results show that, among the financial variables profits, capital structure, sales change and lagged dividend show significant results, whereas investment demand doesn't. This is because the estimates might be biased due to the presence of the lagged dependent variables as one of the explanatory variables.

George and Kumudha (2006), in their study on the Dividend Policy of Hindustan Construction Company Ltd. (HCCL) found that current year's dividend is influenced by current year's earning per share and previous year's dividend per share (supporting Harish 2004). It is found that current year's profit is more important than previous year's dividend while deciding the dividend policy. The study also reveals that it is vital for a firm to maintain a steady growing dividend rate, which would work as a signal for investors and market. This study did not analyse the market response to dividend announcements, which may be an interesting area for further study.

Das's (2006) study concentrates on the exercise of dividend practices followed by The Associated Cement Companies Limited (ACC) in India during the period from 1985-86 to 2004-2005. The study reveals that ACC had been pursuing conservative dividend payment policy during the stated period. Correlation coefficient results reveal negative association between liquidity and the payment of dividend per share. Coefficient of rank correlation of important accounting variables influencing dividend policy evidences high degree of positive association between them excepting a few. Coefficient of correlation between DPS, EPS and CE shows closeness of association. Various statistical measures show more or less inconsistency in dividend practices in the company barring few years. Though dividend per share and earning per share increased significantly over the time but the rate of increase in earnings per share was higher than

the increase in dividend per share. As a consequence, rate of dividend payment in the company decreased notably over the time.

Irala (2006) surveyed 60 public and private companies and found that amount of dividend paid and timing of payout are, for long believed to be influencing the market value of the firm. He also stated that corporate India is fast catching the new methodologies.

Singhania, Monica (2007) examines the dividend policy of select 590 listed Indian companies over the period 1992-2004. The analysis revealed that while the percentage of companies declaring dividend declined over the years, the average dividend per share increased by nearly eight times. This implies that those companies, which declare dividend, increasingly pay higher dividends over the years. Average dividend payout ratio ranged between 25 percent to 68 percent during 1992-2004.

Bodla, Karam Pal and Sura (2007) carried out a cross-sectional analysis from the year 1996 to 2006 across ownership pattern of banks in India. The findings offer evidence that the dividend policy of public sector banks (PSBs) is more stable than private banks (PBs).

## II Research Design and Method

The present study attempts to test the following hypothesis:

"There is no variation between the dividend practices of various industries in terms of average dividend, dividend per share and dividend payout ratio."

Four industries i.e. Chemical, Machinery, Textile and Metal & Metal Products have been selected randomly for the purpose of this study. The number of sample companies varies from 411 to 461 in various years (Table 1). The reference period for the present study ranges from the year 1991 to 2006 i.e. a period of 16 years. For this study, the major part of data comes from secondary sources. 'PROWESS' database maintained by CMIE (Centre for Monitoring Indian Economy) forms the prime source of data for current analysis. The statistical tools used for the analysis include ratio, percentages and ANOVA (F)

Table 1

## III Results and Discussion

This section of the paper presents the trends in dividend payment in India. Table 2 indicates trends in dividends and profit after tax. It is clear from the table that dividend paid

has registered an increasing trend over the sample period whereas average profit after tax (PAT) has been fluctuating over the same period. The average PAT has increased from Rs. 9.305 crore in 1991 to Rs. 110.831 crore in 2006. However, there are several fluctuations in average PAT reflecting the changes in Indian economy. In the early phases of economic reforms, there was a sudden increase in total demand, resulting in an increase in PAT. The late 1990s, which marked a significant increase in competition, witnessed a decline in average PAT of companies. The subsequent pick-up in 2001 has seen an increase in average PAT. Despite fluctuations in PAT, the average aggregate dividend payments by the sample companies have steadily increased from Rs. 1.971 crore in 1991 to Rs. 27.998 in 2006.

Table 2

The industry-wise average dividend paid is shown in Table 3. It shows that in 1991, the companies in 'Chemical industry' have paid the highest dividend of Rs. 2.889 crore followed by 'Metal and Metal Products industry' with Rs. 1.998 crore. It has also been observed that in comparison to other industries 'Textile' companies have continued to pay lower amount on an average, ranging between Rs. 0.875 crore in 1991 to Rs. 3.336 crore in 2006 throughout the period of study. The recent high growth companies in the computer hardware and software segments, which are part of the Machinery industry, have generally shown lower dividend payments ranging between Rs. 1.419 crore in 1991 to Rs. 7.950 crore in 2005 except for paying an extraordinarily large dividend of Rs. 12.318 crore in the year 2006. This may be the case in this industry primarily due to the fact that it comprises of those companies that have generally witnessed comparatively high growth in recent times. Also, this industry may have experienced fluctuations in earnings on year-to-year basis, which may be the cause of lower dividend payments in the period of the study. ANOVA results indicate a significant variation across the industry regarding the amount of dividend paid.

Table 3

The position emerging about the dividend payers and non-payers companies is available in Table 4. It is clear from the table that number of companies, which have paid dividend during the study period, has shown an upward trend till 1995 except 1993, but the number has been declining from 1996 till 2002. However, over the last four years an increasing trend has been observed. The percentage of companies paying dividends has declined

from 76.91 percent in 1991 to 68.61 percent in 2006. This decline in number of companies paying dividend after 1995 may be due to the change in tax policy<sup>1</sup> in 1997 with respect to dividend policy. However, historically it has been observed that when companies have better growth prospects, they tend to pay lower dividends. Hence, the declining trend in dividend payment may also be interpreted in this context. Moreover, since 1999, companies in India are allowed to buyback shares which if effected require to distribute free cash to the shareholders. Since then many Indian companies have availed the share buyback route (as opposed to dividend) to distribute free cash. This regulatory change could also explain the declining trend in dividend distribution since 1999.

Table 4

The study has also brought out that percentage of companies paying dividends have declined, whereas the average dividend paid has increased. This implies that companies, which have been paying dividend, have paid higher amounts in recent years. It has also been noted from table 4, that number of companies paying dividend has obtained uptrend again from 2003 till the period of study.

Table 5 shows that the number of companies paying dividend as well as those paying regular dividend have the decreasing trend from 1992 to till 2002 after that the number of payers have increased slightly. In proportionate terms, however, there is a declining trend in case of the payers. The percentage of regular payers has been fluctuating between 81 to 100 percent.

Table 5

In addition to the above the tax exemption enjoyed by shareholders in respect to dividend income may have played a crucial role in dealing in its favour.

Next aspect analysed is of dividend per share, which is computed by dividing the amount of dividend paid with the number of outstanding shares of each company in each financial year. Average dividend per share has been computed by aggregating the computed value of dividend per share by each company in each financial year falling in the period of study and thereafter dividing the grand total by the total number of sample companies.

Percentage of companies having DPS in the range of 0 to Rs. 2.50 has declined from a high of 47.67 percent in 1991 to 28.26 percent in 2006 (Table 6). However, companies paying dividend up to Rs. 5 per share have remained above 70 percent till 1997. The same fell to 35

percent in 2003, but increased to 48.19 percent in 2006. At the same time, companies paying dividend greater than Rs. 5 have increased from 10.67 percent in 1991 to 25.73 percent in 2006. This indicates that over the period of study the amount of DPS has increased. This may also be indicative of increasing profitability of companies after liberalization.

Table 6

Regarding average Dividend Per Share (DPS) it is obvious from Table 7 that the average DPS ranges from Rs. 2.78 to Rs. 6.50 in the period of study, whereas the maximum DPS ranges from Rs. 48.18 to Rs. 300.02. The analysis across various industries offers that the companies in 'Chemical Industry' have steadily improved their DPS from Rs. 3.34 in 2001 to Rs. 7.65 in 2006 after having stable dividends between 4.1 to 4.8 during 1996 and 2000. (Table 8). A similar trend is observed in case of 'Machinery'. In contrast to 'Chemical' and 'Machinery' group, amount of DPS has declined over the years in case of textile companies. 'Metal and Metal Products' has DPS in a narrow range of Rs. 1.36 to Rs. 2.71.

Table 7 & 8

After having seen the pattern of DPS, we shall discuss the position about Dividend Payout Ratio (DPR), which is computed by dividing the amount of dividend per share with the earning per share. Table 9 presents the year-wise Dividend Payout Ratio obtained at the aggregate level. We can observe from the table that average dividend payout ratio (DPR) range from 17.49 percent to 34.91 percent, at the overall level. However, one percent trimmed<sup>2</sup> average DPR showed a more stable pattern ranging between 29.16 percent to 28.42 percent up to 1994 and then has shown a declining trend up to 2001 when the ratio touched the lowest level (i.e., 17.13 %) There is clean uptrend in payout ratio during the recent five years and the ratio has risen to 24.23 percent in 2006.

Table 9

Table 10 shows industry-wise analysis of Average Dividend Payout Ratio (DPR). Average DPR of 'Machinery' industry ranges from 16.21 percent to 43.94 percent except in the year 1994 and 2005, when it was 10.81 percent and 6.08 percent respectively. Companies in 'Chemical industry' have shown a stable pattern in average dividend payout during 1994 to 2000. The ratio went up considerably during 2005. The DPR declined to 21.06 percent in 2001 from 26.04 in 2000. During the beginning of last decade of twentieth century, the DPR in

case of Metal and Metal Products was as high as 33.78 percent. Thereafter, the ratio kept on declining for four consecutively for four years. After reaching to 29.79 percent during 1997, the ratio came down to 16.93 percent in 1998 and 9.44 in 2001. In case of Textiles the DPR declined to 18.34 in 1996, but rose to 35.05 percent again in 1997. The ratio varied from 9.48 percent to 18.74 percent during 1999-2006, except in 2005, when it was 48.91 percent. As brought out by F test (ANOVA) inter-industry comparison shows no significant variation in so far as DPR is concerned.

Table 10

## IV Conclusion

This study examines the dividend practices in select industries in India since 1991. The number of sample companies in the study varied from 411 to 461 in various years. The scope of the study is limited to four industries namely Chemical, Machinery, Textile and Metal and Metal Products. The study brought out that the percentage of those companies, which declare dividend has declined over the years in India. It declined from 82.13 percent in 1992 to 52.83 percent in 2002, but it rose to 68.61 percent in 2006. However, the average dividend per share has increased from Rs. 4.01 in 1991 to Rs. 6.50 in 2006. Average dividend payout ratio ranged between 17.49 percent and 34.91 percent during 1991-2006. There is no significant variation across the industries in so far as the DPR and dividend per year per firm are concerned. Despite fluctuations in PAT, the average aggregate dividend payments by the sample companies have steadily increased from Rs. 1.971 crore in 1991 to Rs. 27.998 crore in 2006. The results of the study are in conformity to that of Irala (2006) and Das (2006).

Notes:

- Union budget 1997 brought about a landmark change in taxation of dividends in India. While dividend income was made exempt from tax in the hands of recipient shareholders, the companies paying dividend were subjected to a new additional tax referred to as 'corporate dividend tax' as per Section 115-O of the Income Tax Act, 1961.
- 1% trimmed means 1% of the top and bottom of the data set is excluded from the formula computation.

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Table 1  
Industry wise Number of Sample Units

Table 2  
Trends in Dividends and PAT during 1991-2006

Year	Average Dividend (Rs. in cr.)	Standard Deviation of Dividend (Rs. in cr.)	Textile	Average PAT & Metal Products (Rs. in cr.)	Standard Deviation of PAT (Rs. in cr.)
1991	1.572	121 5.608	85	9.305 68	40.1446
1992	2.609	120 7.780	82	8.545 70	65.823
1993	3.085	120 8.735	81	14.995 70	65.468
1994	4.327	122 13.456	85	15.422 72	69.447
1995	6.190	123 19.629	86	26.910 69	102.548
1996	7.609	119 24.825	83	32.773 65	126.769
1997	7.580	117 25.028	86	28.012 67	116.835
1998	8.136	121 29.001	85	28.430 72	137.448
1999	8.918	120 29.001	86	28.430 72	137.448
2000	10.789	118 40.823	88	19.229 66	178.331
2001	11.796	119 40.444	83	21.141 71	212.647
2002	13.868	120 61.001	86	26.921 73	220.050
2003	16.8	120 78.802	85	25.670 74	251.532
2004	20.620	120 134.108	82	50.094 69	381.154
2005	23.515	114 150.967	73	74.896 62	470.990
2006	26.789	136.609		103.671	592.115
2006	27.998	129.802		110.831	605.848

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Table 3  
Average Dividend Paid During 1991-2006 : Industry -Wise (in Rs.Crore)

ANOVA (F) = 11.531; Significance .000

Table 4  
Trends in Dividends Payers and Non-payers during 1991-2006

Table 5  
Distribution of Dividend payers and Regular payers Number of companies and percentages

\* Percentage of total sample in respective years

Year	** Percentage of dividend payers in respective years per share										
	Rs. 0	Rs. 0-2.5	Rs. 2.5-5	Rs. 5-10	Rs. 10-20	Rs. 20-40	> 40				
1991	18.67	343 47.67	23 76.91	2	6.67	6	-	1			
1992	15.67	363 50.67	23.33 82.13	2.33	35.87	4.33	96.97	2			
1993	17.82	357 50.5	23.43 80.59	1.98	34.65	3.3	96.36	1.32			
1994	17.11	364 45.07	28.29 81.8	2.63	34.2	4.28	94.51	1.32			
1995	11.51	386 47.04	31.25 85.78	4.28	34.8	2.63	89.12	0.99			
1996	14.05	371 37.58	34.31 82.81	6.86	34.6	1.63	91.91	1.96			
1997	20.26	342 34.31	31.37 77.9	8.17	32.8	1.31	95.91	1.63			
1998	26.89	318 31.48	25.57 71.62	9.84	31.36	1.64	98.43	0.33			
1999	36.3	281 25.41	23.1 62.17	9.57	2.64	2.64	100	0.33			
2000	39.2	270 23.26	20.6 59.6	9.3	3.55	3.32	100	0.66			
2001	44.78	243 20.2	18.86 55.1	11.78	2.36	1.68	100	0.34			
2002	45.92	233 22.11	14.63 52.83	12.24	3.4	1.02	98.28	0.68			
2003	43.36	241 21.68	13.64 55.56	13.99	5.59	1.05	95.02	0.7			
2004	36.65	241 24.91	15.3 58.13	13.88	7.11	1.07	85.45	1.07			
2005	29.03	268 28.32	17.2 64.01	13.98	7.17	2.51	81.49	1.79			
2006	26.04	282 28.26	19.93 68.61	12.68	7.25	4.35	81.21	1.45			

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Table 7  
Average Dividends per share during 1991-2006 (in Rs)

Table 8  
Industry-wise dividend per share (DPS during 1991-2006 (in Rs)

ANOVA (F) = 19.841; Significance = .000

Table 9  
Average percentage payout during 1991-2006

Year	Chemical % payout	Industry-wide average dividend	Machinery	Standard Deviation	Table 10 Textiles	1% Triamm	Metal & % pay	Food products
1991	27.56	4.59	25.53	102.97	68.48		28.49	3.78
1992	39.32	4.91	30.36	98.20	36.46		29.16	8.61
1993	29.92	9.89	32.38	28.16	28.52		28.92	6.75
1994	27.04	2.62	10.81	118.70	28.90		28.42	4.49
1995	26.14	8.95	35.87	36.07	28.44		27.02	5.04
1996	26.92	6.73	30.58	35.61	18.34		27.92	8.14
1997	27.52	9.90	30.55	60.30	35.05		26.72	9.79
1998	27.32	9.13	43.94	72.69	20.68		24.97	6.93
1999	27.22	1.45	23.72	35.06	12.57		20.48	10.53
2000	26.04	20.05	20.68	28.08	13.01		19.89	9.56
2001	21.06	2.68	40.06	119.95	09.48		17.13	9.44
2002	22.38	7.49	16.21	44.56	10.51		18.04	13.27
2003	22.99	18.85	20.39	27.04	13.74		18.41	9.19
2004	20.16	19.16	22.76	64.17	18.74		20.30	10.46
2005	36.68	26.97	06.08	119.88	48.91		24.78	12.54
2006	32.15	29.72	40.00	93.79	18.98		24.23	15.28

ANOVA (F) = 2.118; Significance = .107

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# WORKING CAPITAL MANAGEMENT IN RELIANCE INDUSTRIES LTD.

Sandeep Goel ★

*An efficient control over the working capital is one of the most important considerations of the financial management of any business undertaking. Reliance Industries Ltd. is no exception to it. The present study aims to analyze the working capital management in the said group not only in totality but also in segmental performance as far possible. The present study will evaluate the various components of working capital, analyze the liquidity trend and appraise the utilization of current assets in the group under study. It will also reveal the shortcomings, if any in the management of short-term assets and suggest the required measures for the effective management of these assets.*

*Keywords:- Working capital, Management, Current assets, Current liabilities, Liquidity*

Financial management is inevitable for every business undertaking. Working capital management is an integral part of the total financial management. There have been instances when major giants have fallen down like a pack of cards due to an inefficient short-term management. The efficient short-term circulation only keeps an undertaking alive for growth in the long run.

The need for working capital in the day-to-day business activities is inevitable. There is hardly any business, which does not require any amount of working capital. In fact, working capital plays the same role in business as the heart plays in human body.

In working capital area of financial management, the finance manager of a company is constantly engaged in endeavoring to maintain a sound working capital position. He is often times confronted with excess and shortage of working capital. While an excessive working capital leads to an inefficient use of fund; inadequate working capital interrupts the smooth flow of business activity and in result profitability. It is really frustrating for a manager to be compelled to function in a continuing atmosphere of lack of required funds to meet the operating needs of business.

Not only has the inadequacy of business of working capital hindered the smooth working of finance manager but also its abundance. Excessive funds lead to an unchecked accumulation of inventories. Also, there may be a tendency

to grant unreasonable credit without properly looking into the credit abilities of the customers. Moreover, idle cash earns nothing and so it is just unwise to keep large quantities of cash reserves with the firm. Thus, the need to have an adequate amount of working capital in a firm cannot be ignored in any respect. For this, the finance manager should take into consideration the following factors which affect the working capital requirements:

The management of current assets in simple words is called as Working Capital Management and the decision is called as Working Capital management Decision. In much more exact words, Working Capital Management is concerned with the problems that arise in attempting to manage the current assets, the current liabilities and the interrelationship that exists between them. It is an integral part of the overall financial management. In practice, a firm also has to employ short-term assets and short-term sources of financing to survive in the long run. It consists of two basic ingredients:

- An overview of working capital management as a whole, i.e. given the level of working capital (liquidity), the trade off between risk and profitability (return), and

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- An efficient management of the individual current assets, such as cash, receivables and inventory.

The main aim of the study is to analyze the management of working capital in Reliance Industries Ltd. The study specifically aims at the following:

- To evaluate the various components of working capital.
- To analyze the liquidity trend.
- To appraise the utilization of current assets.
- To find out the shortcomings, if any in the management of short- term assets in the group under study and suggest required measures for the effective management of these assets.

## I Research Design and Method

### Scope

The study is being confined to Reliance Industries Ltd. for two years on a comparative basis, viz.2004-05 to 2005-06. This period is considered to be sufficient enough to reveal the various fluctuations and reach the valid conclusions thereof.

Reliance industries Ltd. is the largest private sector business enterprise in India, on all major financial parameters. RIL is organized into three major business segments: Exploration and Production of oil and gas; Refining and Marketing of Petroleum products; and Petrochemicals.

### Type of research

The research is exploratory in nature and attempts to have a deep insight into the working capital structure of the said unit.

### Data used

The main data used is secondary in nature though it has been supplemented by the primary data as well. The secondary data has been collected from the annual reports and other relevant documents of the undertaking. The primary data has been gathered through interview method.

### Tools /techniques used

The data collected has been analyzed by applying various accounting and statistical tools such as, comparative statements analysis, common-size analysis, ratio analysis, arithmetic mean, and graphs (time-series).

### Concept of working capital

There are two concept of working capital, viz. gross

concept and net concept.

Gross Working Capital: It refers to the firm's investment in total current assets.

Net working Capital: The most common accepted definition of net working capital (NWC) is the difference between current assets and current liabilities current assets which are financed with long term funds.

Before proceeding further, let us define the terms 'current assets' and 'current liabilities' here. Current assets are those assets which can be converted into cash, or near cash within an accounting year or within the operating cycle which ever is greater. Current liabilities refer to those liabilities which have to be paid off within the next accounting year or operating cycle. Normally, all those liabilities that are required to be paid off within a period of one year are regarded as current liabilities.

## II Results and Discussion

As already discussed, an efficient working capital management is inevitable for the smooth day- to- day running of any business firm. Here, working capital management will be analyzed in the said unit with respect to following aspects:

- Trend of working capital;
- Liquidity pattern;
- Utilization of current assets.

### Trend of working capital

Working capital trend in any unit can be studied on the basis of two respective aspects:

- Level of investment in working capital
- Structure of working capital.

### Level of investment in working capital

An optimum level of working capital is needed to be determined so that the wealth of shareholders is maximized. The level of current assets is a further indication of the fact that the firm has maintained an adequate level of working capital. The level of working capital can be measured by relating current assets to total assets. The ratio which expresses this is 'current assets to total assets ratio'. It can be calculated as:

$$\text{Current assets to total assets ratio} = \frac{\text{Current assets}}{\text{Total assets}}$$

A higher CA/TA ratio would indicate excessive investment in current assets, indicating greater amount of liquidity. But, lower rate of return (profitability) will also be there

with lower risk as current assets are less profitable than fixed assets. So, there would be a conservative current assets policy. In contrast, a low CA/TA ratio would indicate a smaller amount of investment in current assets. So, lower level of liquidity would increase the risk. But a higher rate of return (profitability) will be there as fixed assets are more profitable than current assets. It signifies the use of an aggressive current assets policy.

We shall be using this ratio to measure the level of investment in current assets of the unit under study.

#### Structure of working capital

In an industrial undertaking, the major components of working capital are inventory, sundry debtors, cash and bank balances and loans and advances. The said unit is no exception to it. We shall be analyzing the structure of working capital of the unit to find out:

- How much has been invested in the working capital as a whole, and
- How much has been invested in each component of working capital individually.

Both the above-mentioned aspects of the unit have been discussed in Table 1.

It can be easily inferred from the above table that level of investment in working capital has registered a decreasing trend during the period under study. It has decreased from Rs. 11,320.99 cr. to Rs. 8,119.97 cr., indicating a decrease of 28.28 percent. The share of current asset in total assets as depicted by CA/TA ratio has been on the decreasing trend. It has decreased from 35.31 percent to 26.40 percent during the period at the rate of 25.23 percent. It shows an investment level of below 50 percent to total assets of the concern. It is an indication of the pursuance of an aggressive policy by the management. So, the level of liquidity has been low prone to considerable degree of risk. The organization is going more of a dynamic way in terms of achieving profits.

The major reason of decrease in current assets could be attributed to decrease in other current assets during the year. In the previous year; they were Rs. 2,087.66cr. while in 2005-06 they got down to Rs. 25.06 cr. This was followed by decrease in cash and bank and loans and advance. Some increasing trends were also observed during the period, like there was an increase in inventories from Rs. 7,412.88cr. in 2004-05 to Rs. 10,119.82cr. in 2005-06. Also there was an increase in sundry debtors at a rate of 6 percent. But ultimately reduction in current

assets could be easily observed.

The current liabilities and provisions have decreased too, though marginally at the rate of 3.95 percent.

On an average, the short-term solvency position of the company as far as availability of current assets is concerned, needs to be looked into by the management. The investment in current assets has decreased and this under-investment could be a major hindrance to the smooth working of the organization.

#### Liquidity Pattern

Liquidity implies the ability of a firm to meet current/short-term obligation when they become due for payment. The importance of an adequate level of liquidity can hardly be over stressed. In fact, liquidity is a per-requisite for the very survival of the firm. The ratio which indicates the liquidity or short-term solvency of a firm are:

- Current ratio, and
- Liquid ratio

#### Current ratio

The current ratio is used to assess the short-term financing position of the concern. It matches the total current assets of the firm against its current liabilities. It is calculated by dividing current assets by current liabilities:

$$\text{Current ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Current Assets', as already stated, means assets convertible and meant to be converted into cash within a year's time and 'current liabilities' means liabilities repayable in a year's time.

The current ratio of the firm measures the short-term solvency, i.e. its ability to meet short term obligation. As a measure of short-term /current financial liquidity, it indicates the rupees of current assets available for each rupee of current liability/obligation. The higher the current ratio, the larger amount of rupee available per rupee of current liability, i.e. more the firm's ability to meet current obligations and greater safety of funds of short-term creditors. Thus, current ratio, in a way, is a measure of margin of safety to the creditors.

Although there is no hard and fast rule regarding the standard norm of current ratio but conventionally, a current ratio of 2:1 is considered an ideal ratio. In contrast, a low ratio indicates lack of liquidity and shortage of working

capital .Therefore a, firm should have a reasonable current ratio. The position of the unit under study is illustrated by table 2.

A close look into the table reveals that the efficiency of the unit in meeting short-term liabilities has decreased during the period under study .Current ratio has decreased from 1.66 to 1.49 indicating decrease of 10.24 percent during the period under study. The reasons could be attributed to decrease in level of current assets. The ratio has been well below the general norm of 2:1 with an average of 1.575 during the period under the study. So, an efficient management of current assets is required. The level of current assets needs to be increased in regard to meeting of current liabilities.

#### Liquid Ratio or Quick Ratio or Acid-test Ratio

Liquid ratio is worked out to test the short-term liquidity of a firm in its correct form. It establishes a relationship between liquid or quick assets and current liabilities. It is calculated by dividing the liquid or quick assets by current liabilities:

$$\text{Liquid ratio} = \frac{\text{Liquid assets}}{\text{Current liabilities}}$$

Liquid ratio' is those which can be converted into cash immediately or at a short notice without diminution of value. If from current assets, the stock and prepaid expenses are removed then the remainder is called liquid assets.

The liquid ratio is a rigorous measure of a firm's ability to service short-term liabilities. The usefulness of the ratio lies in the fact that it is widely accepted as best available test of liquidity position of the firm.

Generally, a liquid ratio of 1:1 is considered to be good because a firm can easily meet all its current claims. But a very high ratio indicates over-investment in liquid assets while a low ratio indicates over-trading which, if serious, may land the company in difficulties .An analysis of liquid ratio of the unit under study is shown by table 3.

From the above table, it can be analyze that liquidity has decreased at rate of 52.03percent during the period under the study. The Liquid Ratio has decreased from 1.23 in 2004-05 to 0.59 in 2005-06. Major item of liquid assets have decreased at a tremendous rate during the period like other short- term assets decreased tremendously from Rs. 2,087.66cr. to Rs. 25.06cr. during the period. Average ratio has been below the general norm 1:1 .So, a lower level of liquidity is indicated which needs a check. If this

trend continuous, it may pose a serious problem to the management of liquid assets in the long-term.

#### Utilization of Current Assets

The volume of assets is one of the devices to judge the size of a business. However, its growth, prosperity and competitive sharpness depends largely on the efficient use of the assets at its disposal .To know how effectively current assets are being utilized by the units, the 'Current Assets Turnover Ratio' is applied. The ratio is computed as follows:

$$\text{Current assets to turnover ratio} = \frac{\text{Sales}}{\text{Current Assets}}$$

In this regard , no generally accepted norm exists but the criterion of higher the current assets, higher should be the amount of sales and vice-versa may be followed in the present context .Every increase in assets is generally accompanied by proportional increase in sales. Efficiency of a business lies in the fact that the increase in the quantum of current assets is kept under control and does not allow it to increase disproportional.

A high current asset turnover ratio indicates more efficient utilization of funds and vice-versa. An improvement in the ratio indicates a better performance and a decline in it would show a declining efficiency of improvement investment. But in case of a very high ratio there would be too much strain on the financial structure of the business. In contrast, a low ratio reveals high efficiency in use of financial recourses .it indicates under utilization of available resources and presence of idle capacity. The position of the unit under study is illustrated by table 4.

Table 4.5 reveals that the efficiency in the utilization of current assets have increased at the rate of 45.53 percent during the period under study .Sales have increased from Rs. 66,976.76 cr. in 2004-05 to Rs. 84,025.44 cr. in 2005-06 at the rate of 25.45 percent offsetting the reduction in current assets . The average ratio has been 2.885, indicating that the utilization of resources has been quite ok and the management must continue this good work going on.

### III Conclusion

During the study, it has been found that the present unit has got quite an under-investment in current assets, being the investment level less than the 50 percent of the total assets of the concern. In such a situation, more short-term funds are required, otherwise the working

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capital really gets threatened. The current liabilities have decreased marginally at the rate of 3.95 percent during the period under study

As far as ability of the firm in meeting short-term liabilities is concerned, the performance of the unit is under consideration. The current ratio has been under 2 during the period under study and that too with a decreasing trend. It has been well supported by decreasing liquid ratio at the rate of 52.03 percent during the period. So, the amount of liquidity available in a true form is under a question

Efficiency in utilization of current assets is really good. The current asset turnover ratio has increased at the rate of 45.53 percent during the period under study.

Still to improve the situation of working capital management in firm in general, it is suggested that:

- The requirement of working capital should be properly assessed in view of the present availability of the concern. This will help the management to avoid any over-investment or under-investment in current assets.
- Various factors affecting the requirement of working capital in a concern, like nature of business, production policies, etc. must be considered and kept in mind while estimating the need of working capital.
- A proper combination of long-term and short-term sources should be employed to finance working capital requirements, both, of permanent nature and temporary nature. The accepted norm should also be considered with the personal choices while financing of working capital. As a rule, the permanent working capital should be financed from long-term sources, preferably the equity, while the variable working capital should be financed from short-term sources only.
- The general norm of current ratio and liquid ratio of 2:1 and 1 respectively should be kept in mind and strictly followed while maintaining the short-term solvency position of the concern.
- There should be a more efficient utilization of current assets by the management. Increase in sales should correspond to the increase in current assets. Individual attention should be paid to the management of each component of current assets, viz. inventories, receivables, cash, etc.

Notes

Liquid Assets are: [Current Assets – Jobs in Progress (inventories) – prepaid expenses]

Sales include net turnover plus other income and variation in stocks.

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Table 1  
Trend of Working Capital of RIL for 2004-05 To 2005-06

(Rs. in Cr.)

Source: Compiled from annual reports of RIL.

Note: Figures in parentheses show percentage of respective item taking total current assets as hundred.

Particulars	2004-05	2004-05	2005-06
		(Rs.)	(Rs.)
<b>Current assets (CA)</b>	<b>1.66</b>		<b>1.49</b>
Inventories		1,575.38 (26.05)	1,091.82 (41.18)
Sundry Debtors		3,927.81 (13.80)	4,163.62 (16.94)
Cash and Bank		3,608.79 (12.68)	2,146.16 (8.73)
Other Current Assets		2,087.66 (7.34)	25.06 (0.10)
Loans & advances		11,415.37 (40.12)	8,119.79 (33.04)
Current liabilities (B) and provisions		17,131.52	16,454.48
Working Capital (A-B)		11,320.99	8,119.97
CA/TA Ratio (%)		35.31	26.40

Source: Compiled and computed from the annual reports of RIL.

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Table 4  
Current assets turnover ratio of RIL for the period 2004-05 to 2005-06

Source: Compiled and computed from the Annual Reports of RIL.

Figure 1(a)

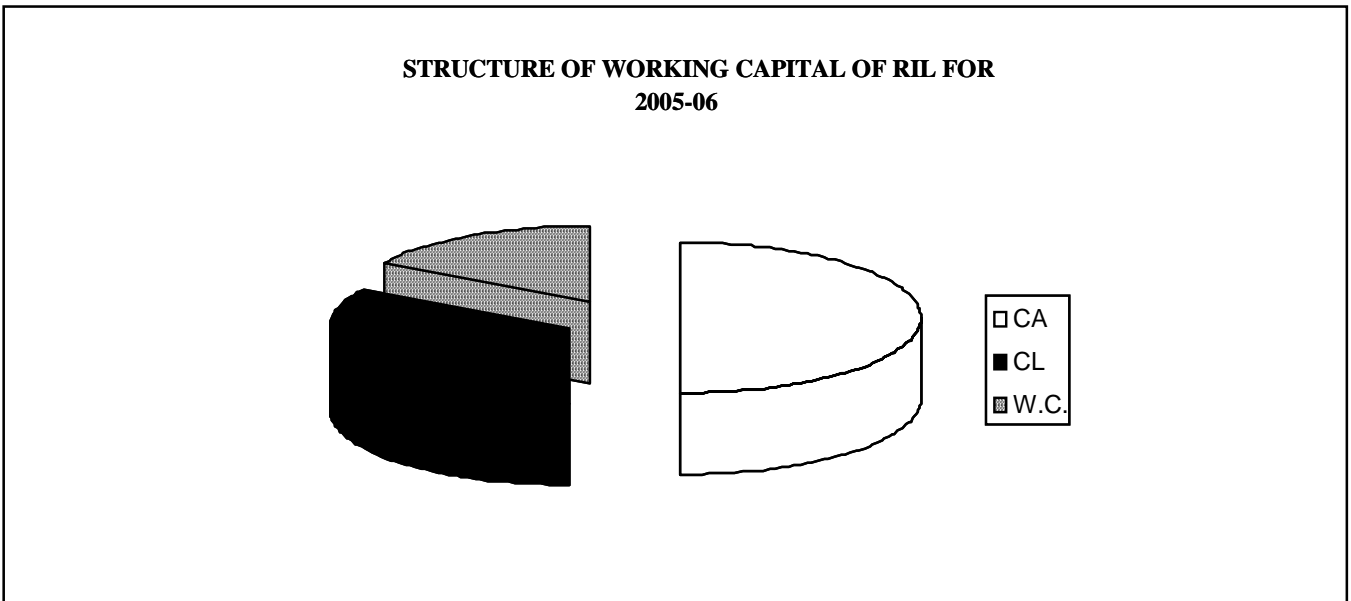
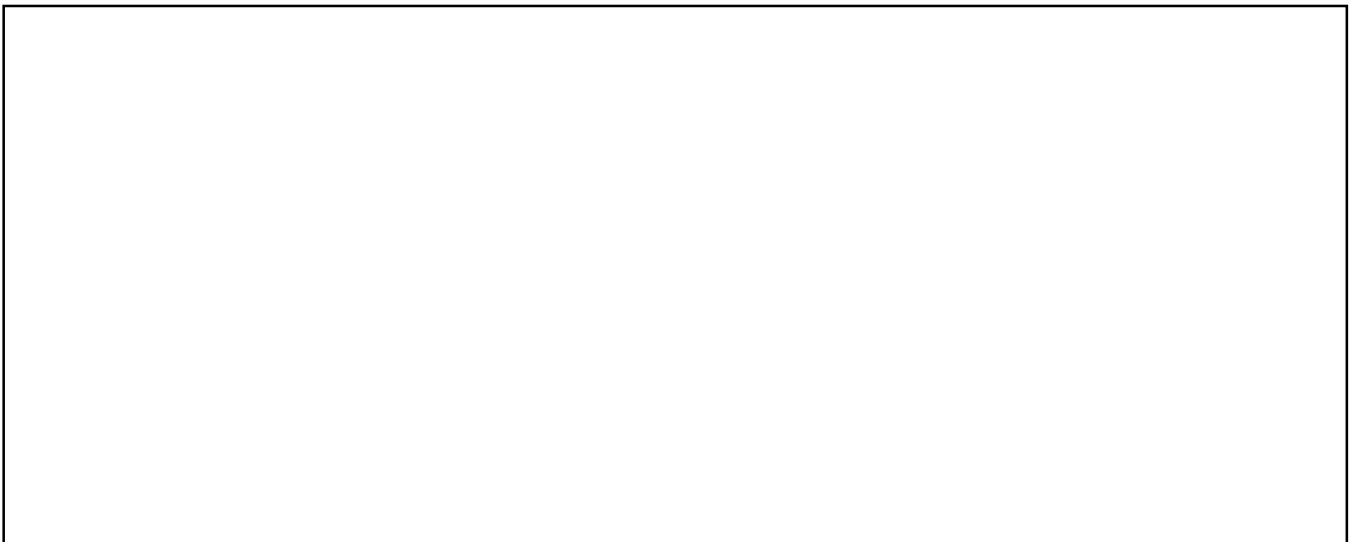


Figure 2

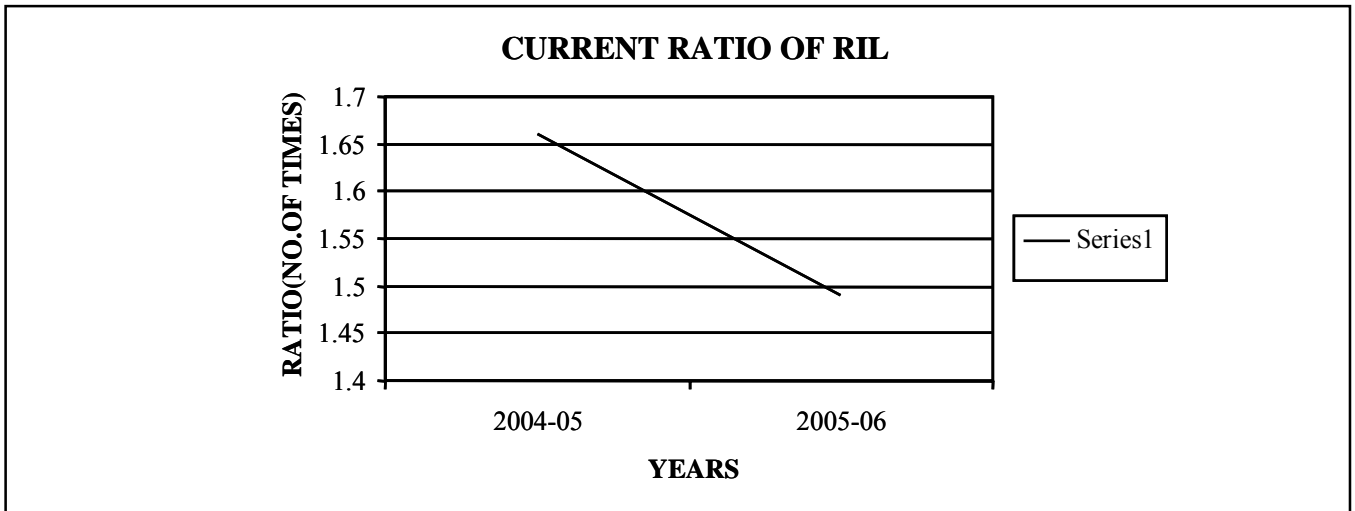


Figure 3

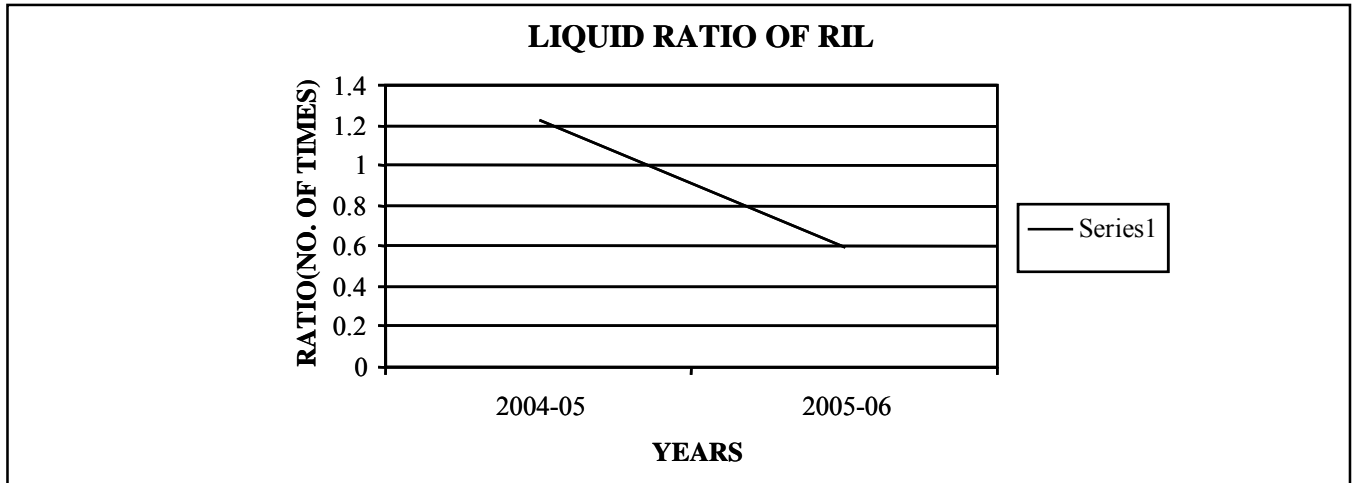
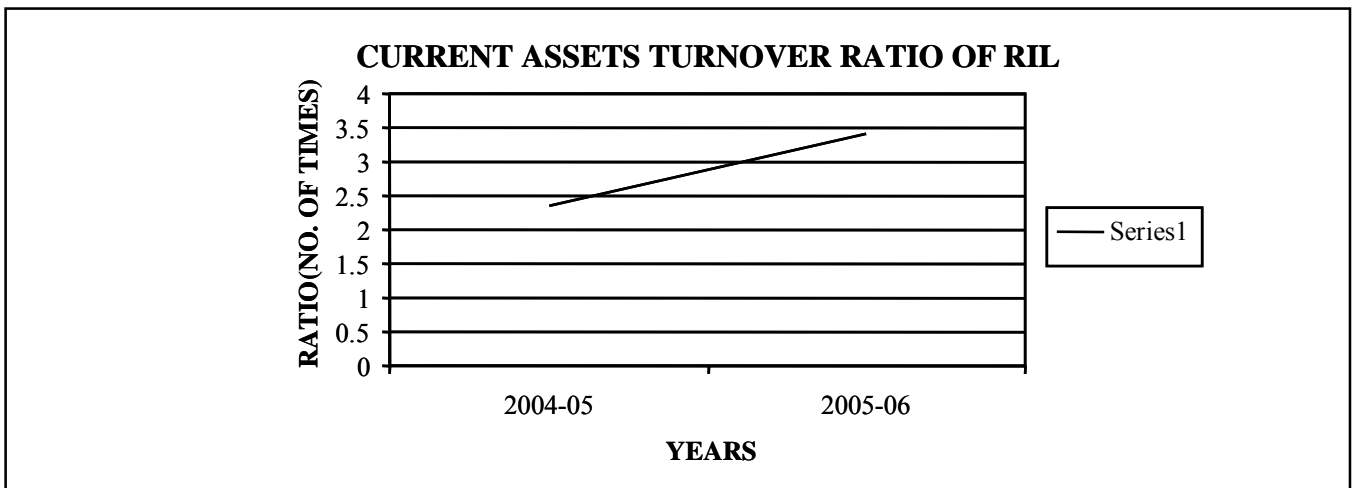


Figure 4



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# CONTRIBUTION OF AGRICULTURE IN THE DEVELOPMENT OF INDIAN ECONOMY

Neetu Pathak ★

*Agriculture has always been India's most important economic sector. Agriculture sector plays a strategic role in the process of economic development of a country. It has already made a significant contribution to the economic prosperity of a advance country and its role in the economic development of under developed country is of vital for future development. In other words, where per capita real income is low emphasis is being laid on agriculture and primary industries. It is also an important factor containing inflation, raising agricultural wages and for employment generation. Realizing the importance of agricultural production for economic development, the central government has played an active role in all aspect of agriculture development. This paper has analysed the share of agriculture sector in total gross domestic product, national income in India. It was also tried to study the role of agriculture sector in employment generation and exports.*

Economic development refers to the problems of underdeveloped countries and also how they pursue a path of economic growth like those of advanced countries. The principal characteristic of these backward economies are in brief :low incomes, low rate of savings and investment insufficient capital and traditional techniques together with low productivity, predominance of agriculture , over population , disguised unemployment , inadequate communication and transportation facilities and social inhabitation . Generally economic development means simply economic growth; more specifically it is used to describe not quantitative measures of a growing economy but the economic, social or other changes that lead to growth. To give a development orientation to an underdevelopment economy, one has to identify the factors that promote development.

Agriculture as a tool of economic development shows that agriculture is the only activity capable o generating a surplus large enough to stimulate growth in other sectors of the economy. Being the largest industry in the country, agriculture is the source of livelihood for over 58% of population in the country; means agriculture provides employment to around 58% of the total work force in country.

According to classical economist that , “Agriculture as the engine of economic growth” means agriculture is the only activity capable of generating a surplus large enough to stimulate growth in other sector of the economy.

The historical records indicate that no country has moved from chronic stagnation into the take off stage of economic development without raising agricultural productivity. The agricultural output however depends on monsoon, as nearly 60% of area is dependent on rainfall.

Economic growth is invariably accompanied by a decline in the share of agriculture in total output, income and employment. At advanced level of development, the labour force in agriculture tends to decline absolutely. It is worthwhile to mention at this point that the pace of agricultural growth is limited by the growth of demand for its output and in turn the growth of demand is limited by the tendency for the proportion of households spending on food to decline as income rise. In fact, these two factors are greatly responsible for the structural transformation of agriculture .

Indian agriculture has been the source of supply of raw material to our leading industries, so cotton and jute textile industries, sugar, vanaspati and plantation all these depends on agriculture directly. These are many other industries, which depend on agriculture in an indirect manner. Many of our small scale and cottage industry like handloom weaving, oil crushing etc. agriculture for their raw

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material together they account for 50% of income generated in the manufacturing sector in India. In recent years, the important of food processing industries is being increasingly recognized both for generation of employment.

The increased agricultural output helps economic development with food and fibers supplying investment resources and realizing excessive labour force for use in manufacturing sectors of the economy. The most important ways in which increased agricultural output and productivity contribute to overall economic growth can be summarized in five prepositions.

- Economic development is characterized by a substantial increase in the demand for agricultural products, and failure to expand food supplies in pace with the growth of demand can seriously impede economic growth.
- Expansion of exports of agricultural products may be one of the most promising means of increasing income and foreign exchange earnings, particularly in the earlier stages of development.
- The labours force in manufacturing and other expanding sectors of the economy must be drawn mainly from agriculture.
- Agriculture, as the dominant sector of an underdeveloped economy, can and should make a net contribution to the capital required for overhead investment and expansion of secondary industry and,
- Rising net cash incomes of the farm population may be important as a stimulate to industrial expansion.

The contribution of agriculture in the growth of a nation is constituted by the growth of the products within the sector itself as well as the agricultural development permits the other sectors to develop by goods produced in the other sectors and selling its own products in the domestic and international markets. Growth of demand for food is of major economic significance in the developing economies. If food supply fails to expand the inflationary impact of a given percentage increase in prices will have a very much adverse effect in the underdeveloped countries than in developed countries.

The eleventh plan has projected a growth rate of GDP at 8-9% out of which agriculture will be 3-4%. It suggests that, demand for agriculture will restrict its growth to between 3% & 4%. The importance of the agricultural growth rises not only from the need to provide adequate food production but because of the increasingly important role that rural demand will need to play in order to support non- agricultural growth from the demand side. Much of this demand will be for non- agricultural activity which

will also generate non- agricultural employment in rural areas.

Expansion of exports of agricultural products may be one of the most promising way of increasing income and foreign exchange, wanted particularly in the earlier stages of development. Thus within the contains and possibilities of trade in primary goods and a larger run goal of diversification of various crops, for most of the underdeveloped countries, the introduction or expanded production of agricultural exports crops can and should play a strategic role in providing enlarged supplies of foreign exchange. The objectives of the studys are:

- To analyse the share of agricultural sector in total gross domestic products.
- To compare the share of agricultural on national income in India.
- To study the role of agriculture sector in employment generation.
- To find out the contribution of agricultural in India's exports.

## **I Research Design and Method**

The study has been completed by rigorous analysis of secondary data, the relevant secondary data have been collected from statistical bulletine, books, business magazines and relevant reports of the Ministry and its analyzed by using effective statistical tools like percentage , average etc.

## **II Results and Discussion**

- Contribution of agriculture in Gross Domestic Product-

Agricultural development takes place only when increased productivity and output are reflected in rising real incomes and in rising rural standards of living. While the development of agriculture seems to hold the key to the progress of the economy as a whole and should receive due emphasis , the linkage between agricultural and non- agricultural sectors also needs to the recognized. The interaction between agricultural and non- agricultural sectors facilitates the growth of both.

The demand for non- inputs of industrials origin stimulates industrial activity. The industrial growth in turn increases the demand for wage goods and raw materials, which helps expand agricultural employment and income. Increased agricultural incomes create market demand for industrial consumption goods there by providing a stimulus to industrialization and market development. As development proceeds along these lines, opportunities for

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diversified employment are opened up to reduce the pressure of population that would have otherwise crowded the agricultural sectors to draw its sustenance there from. In the mid – 1990s, it provides approximately one third of the gross domestic product and employs roughly two thirds of the population. The contribution of the agricultural sector to national income, foreign exchange of the agricultural is a measure of that sector's importance in the over all economy of the country.

Since the inception of planning in the economy, it has a substantial share in GDP. According to the data released by the Central Statistical Organisation (CSO), the table 1 show that agriculture sectors share in GDP was 27.32% in 1999-2000, 26.18% in 2000-2001 and it reduces to nearly 1.14%. The contribution of agriculture in the GDP is decreasing by increasing rate. Compared to last year 2006-2007 agriculture sector will witness slower percentage change at 20.55% in the GDP, as against the previous year percentage change of 21.67%, a minor drop of 1.12%.

- Contribution to National Income:-

Economic growth is a basic objective of every country of the world today. For India it has a special significance because of the economic problems of mass poverty and unemployment. The low level of living of most of the people in India is the result of these twin problems. A high rate of economic growth was expected to achieve this objective. The rate of economic growth is expressed in terms of the growth of national incomes and per capita income over a period of time. It is thus clear that national income is used to measure of economic growth.

The experience of countries suggests that improvement is possible. The key factor in the growth process of highly developed nations has always been the farmer himself. Farmers have always sparked a stream of cost reducing innovations and have financed and carried out investment needed for the development. The recent development in developing countries also indicate that farmers behave no differently today. The key factors are still the opportunity and the incentive to improve the land and with it the farmer's livelihood.

Indian economy has been achieving high real GDP growth rates for past three years now with an average rate of 8.1%. Quarterly GDP estimates for 2006-07 released by the central Statistical Organisation (CSO) in September 2006, also present a buoyant picture with first quarter (April- June) growth at 8.9%. This apparent consistency in achieving higher growth rates over last three years has

led to a belief that economy has moved to a higher trend growth rate and this high growth momentum is expected to be maintained during the current financial year as well.

Agriculture contributes a major share in the National income of India. The table – 2 gives clear evidence that the contribution of agriculture growth rate GDP at 6.2 percent in the year 2001-02 and growth rate at factor cost 5.8 percent. It is seen that growth rate GDP) – 6.9 percent declined in the year 2002-03. In terms of growth rate GDP, the national income is expected to rise by 1.2 percent in 2006-07 in comparison to the growth rate at factor cost 0.4 percent in 2006-07.

- Contribution to Employment –

Agriculture, directly or indirectly, has continued to be the main source of livelihood for the majority of the population in India. The recent census data indicates that the proportion of the work force supported by agriculture has been around 70 percent. However, during 1991, the share of agriculture in total employment slightly declined to 68 percent. The rates and pattern of investment in the other economic sectors have not been such as to draw away surplus rural labour and relieve the pressure of population on land. Further since the growth of the agricultural sector was very slow, it failed to create enough opportunities for additional employment. Whereas in 1951 the urban population formed 17.30 percent of the total, the census in 1991 revealed that in 4 decades the urban population had gone up to 25.7%. However, the overall static nature of the occupational structure of the Indian Economy continues and thus one of the objectives of planned development has not been yet fulfilled.

The Tenth plan recommended providing gainful employment opportunities to all the additions in the labour force over the five year period, and reducing significantly the rate of unemployment over the Tenth Plan, so that by the end of the Eleventh plan, the unemployment rate will be near zero.

The employment scenario is presented by the Tenth Plan document during the period shown in the Table: 3 expect that the 8% growth pattern and assuming the present sectoral employment elasticities. An estimate has been made of the level of employment and unemployment over the Tenth plan. According to the above table the estimate of unemployed were around 40.47 million person years (defined on current daily status (CDS) basis) When the unemployment rate went up to around 9.79 percent. The estimates of addition to labour force over the Tenth Plan

period are 35.29 million person years (413.50 – 378.21). Increased employment opportunities of around 29.67 million person years (i.e. and increase from the base figure of 343.36 Million to 373.03 million with the help of a 8 percent per annum growth over the next five – year period.

Contribution of Agricultural in total Exports: -

Agricultural products occupy a place of pride in the export sector of many developing countries. For India according to one estimate agricultural commodities, which used to figure in the export trade before the second world war, accounted for 49 percent of the total value of export 1938-39. However, even with the reduced resources, agriculture (Primary products) contributed about 30% of total exports in the 1970-80 periods. To pay for its essential imports and to minimize dependence on foreign countries, expansion of exports was essential. It was also realized that the market for many goods with in India may not be adequate to absorb that entire domestic production and hence a search for markets elsewhere was a necessity.

The Table – 4 shows that agricultural exports decreased 13.5 percent in 2000-01 as compared to the 1998-99 as a percentage total export declined from 12.9 percent in 2003-04 to 11.7 percent in 2005-06. Compacted with 2005-06 to 2006-07 the percentage share of agricultural products in total export has come down 0.31 percent. The percentage is declining year after year.

India may diversify its exports pattern by introducing new industrial products in to the world markets, agriculture will constitute a significant proportion if its exports structure and to help the country to pay for the increase imports of machinery and raw materials.

### III Conclusion

Agricultural development is an essential condition of economic growth in India. Agriculture as tool of economic growth and the agriculture are capable of generating a surplus large enough to stimulate growth in other sector of the economy. The pressure of demand on agricultural commodities is mounting rapidly, partly due to population increase and also due to higher levels of consumption made possible by rising per capita income. The present stage of development and resilience gained by the agricultural economy of India has been reached after continued application of technical innovation and changing the institutional framework of the rural sector of the Indian economy during the planning era.

The observation are based in the analysis of the data that the share of agriculture in national income however has been decreasing continuously even through there productivity is increasing in decreasing rate. In other words, prosperity of the farmers is also the prosperity of industries. Keeping agricultural prices low by restricting trade, both external and internal does not serve any useful. Reforms in the agriculture have taken place since independence but many of them are not in the right direction.

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Table 1  
Share of agriculture sector in total gross domestic product (GDP) at factor cost:

New Series with Base 1999-2000=100			
Year	Agriculture	GDP at factor cost	Percentage
1999-00	488109	1786525	27.32
2000-01	487992	1864300	26.18
2001-02	516584	1972606	26.19
2002-03	486134	2048287	23.73
2003-04	531302	2222758	23.90
2004-05	535037	2388384	22.40
2005-06(P)	566163	2612847	21.67
2006-07(Q)	588530	2864309	20.55

P:-Provisional estimates

Q:-Quick estimates

Source: - Central Statistical Organisation (CSO)

Table 2  
Position of agriculture in India in terms of National Income  
GDP Estimate, at 1999 – 2000 Prices (Rupees Crore)

P = Provisional

Q = Quick estimate

A = Advance estimate

Table 3  
Employment generations in agriculture sector.

Note: \* Based on 8 percent per annum growth in GDP during 2002-07.

\*\* Based on 5.2 percent GDP growth during 2000-01 and 2001-02.

Source: Government of India. Planning Commission, Tenth Five Year Plan, 2002-07, Volume I (Delhi 2003).

Items	1998-99	Employment Scenario 2000-01	2003-04	Tenth Plan 2004-05	Table 4 Period and Beyond Contribution of Agricultural in India's Exports	2005-06	2006-07
India's total exports	141500	199807	200147136	2002**	55716007	5009	Employment Growth over 10 plan per annum
Total export	26200	59010	60760		65060	5247	6355
Agricultural products (p.a. growth)	Million	63.33	371.52	378.21	413.50	451.53	1.8%
Employment* Percentage	Million	336.75 13.5	340.82 12.9	343.36	11.7 373.03	403.52 9.26	1.7% 8.95
Share of Unemployment Rate in total exports	%	7.32	8.26	9.21	9.29	10.63	-
No of Unemployed	Million	26.58	30.70	34.85	40.47	48.01	3.0%

Source: Ministry of Commerce

## MANAGING THE SELF: THOUGHTS FROM GITANJALI AND BHAGVAD GITA

S.C. Sharma ★

Over 40 years ago while studying in Class-X came across a poem in our English text book with a heading “Where the Mind is without Fear and the head is held high” written by Rabindra Nath Tagore. The poem is a part of a collection of poems popularly known as Gitanjali, a Nobel Prize winning works of the great poet.

Even after repeated readings, I could not make any head and tail of the poem. And yet the poem attracted me immensely and I was very keen to understand and have an insight into the magical words of this highly venerable poet. Unable to repress my deep desire, I raised my hand to draw attention of English teacher and requested for interpreting the poem which I had failed to understand. The teacher assured the class that he would take up the poem the following day which I waited passionately. To my dismay, next day the teacher declared that the poem was too complicated and we were advised to skip it and concentrate on other simple poems which would help us in scoring marks. I did not have the courage to raise my hand again or stand up and tell the teacher that scoring the marks was not important and the real purpose of coming to school lay in learning and developing capabilities. As days passed by, I forgot the incident and focused on preparing for examination to leave the school and enter college.

Many many years later, when I had covered a large part of my journey of life and seen it in its innumerable colours, with a great stroke of luck, I came across the great gem by Tagore which reads as follows :

- “WHERE the mind is without fear and the head is held high:
- Where knowledge is free;
- Where the world has not been broken up into fragments by Narrow domestic walls;
- Where words come out from the depth of truth;
- Where tireless striving stretches its arms towards perfection;
- Where the clear stream of reason has not lost its way into the dreary desert sand of dead habit:

- Where the mind is led forward by thee into everwidening thought and action---- into that heaven of freedom, my Father, let my country awake.”

I read the poem after a very long gap----- separating a simple, enthusiastic and rustic school boy from a grown up and weathered man in his late fifties. Now even the first reading of the poem made me feel as if I could interact with the mind and spirit of Tagore. I was convinced that the school teacher was right in suggesting to skip the poem as its inner meanings could not be unfolded by a person or to an audience which have not experienced the ups and downs of life with all its peaks and troughs, exuberance and depression. Impulsively and intuitively I feel that while inking this prayer for elevation of consciousness of his countrymen, Tagore must have himself entered a state of mind which was free from fear and must have experienced indefinable closeness with the ‘creator’ whom Tagore addressed as his “Father”. The poem represents the culmination of union between the individual consciousness of the poet and the cosmic intelligence and order pervading the universe. This cosmic order is eternally unified structure in which boundaries and borders do not exist and which is free from all forms of limitations and divisions. In this state of mind, I find striking similarities and inseparable identity between the thoughts of Tagore and message of Lord Krishna to Arjuna in the battle field of life. Both Tagore and Lord Krishna are working on shaping and raising the level of awareness and quality of consciousness of the individual and humanity at large.

The opening line of the poem is most striking where the poet is invoking the divine powers to free the mind from fear. Tagore knows fully well that life on earth is surrounded by fear from all sides, from the beginning to the end and for all living things and that is the precise reason underlying his prayer. A mind free from fear has to be in state of bliss. Freedom from fear is the most

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important step towards realization of self and actualization of latent potential. In fact, it is the measuring rod for spiritual development of an individual or the community. A mind which is free from fear, free from doubt and hesitation, free from procrastination, has first to be freed from insecurity, anxiety, darkness and negativity. It has to be an illumined mind, a mind rooted in the self-a mind which is not dependant upon any external object for its growth and sustenance. It ought to have capabilities and courage to face any uncertainty, cope with any calamity and even perceive its own dissolution with serenity and poise. A mind can be free from fear when the person has tempered his desires in the fire of reasoning and has completely overcome the fear of failure and the fear of known and unknown. In this state of mind, the difference between success and failure ceases to make any impact and comparison with the acquisitions of others lose total significance.

There is no medicine available in the chemist shops to make us free from fear. If there were one, it would have been the most wonderful product taking which we could reach a care-free state- a state which would take us away from perennial anxiety and constant worrying, with no end in sight. Tagore knows it very well and therefore, precisely suggests that the only prescription for reaching fear-free state of mind is through attaining knowledge, constantly endeavouring to keep the stream of reason free from muck if negativity and psychic pollution. The great poet is imploring us to visit and revisit our 'dead habits' which have become an integral part of our physical consciousness. These disfunctional habits, pre-dispositions and tendencies are ingrained in the very texture of our brains and converts human beings to work like a preprogrammed robot with zero degree of freedom to bring about transformation in our lives.

Tagore is invoking the divine powers to descend upon us and help us in reaching perfection in our efforts in accomplishing whatever task or goal we have set for ourselves or have been assigned in the panorama of life. The focus is on creating a being who attains and lives in perfect harmony between what he feels, thinks and carries out in the form of action – a perfect harmony between what he feels thinks and carries out in the form of action- a perfect blend of integrity of mind heart. High thinking has to be accompanied with right action. A journey along this route would enable the being to establish close contact with his subtle inner being which, in the words of Tagore, would take us to the levels of consciousness where the speech springs from the 'depth of truth'.

This short poem of 90 pulsating words has the enormous capacity to nourish and lift our souls to a level where we could establish a communion or even a dialogue with our Creator. Tagore could not have expressed such profound thoughts in such simple words unless he had lived these words and tasted nectar of truth. Travelling along this path, the mind becomes free from fear. Experiences in the course of this journey instill and reinforce sense of self esteem to tread the journey of life with the meaning and dignity.

Let us now turn to the teachings of Lord Krishna in Bhagvd Gita, possibly the most celebrated treatise in the world on 'Management of Self'. Bagvad Gita is a dialogue between Arjuna and Lord Krishna. What was the state of mind of Arjuna, the best of the Pandavas in the battle field of life when Lord Krishna chose to reveal the highest wisdom available to men on the earth? Is Arjuna's mind free from fear---- the primary concern to Tagore? Is he about to hold his head high? Is he in touch with his inner being? Is he in a state where there is perfect harmony between skills, knowledge, thoughts and actions? We need not make a subjective assessment of the state of mind of Arjuna to answer these questions In his own words, Arjuna addressing Lord Krishna summarizes his own state of mind. He says:

"My limbs fail and my mouth is parched, my body quivers and my hair stands on end. Gandva slips from my hand and my skin burns all over; I am not able to stand, my mind is whirling".

(Chapter I, Verse 29 & 30)

Seeing this miserable plight of Arjuna, the best specimen of humanity of his time, Lord Krishna asked:-

"Where has this dejection befallen you in this perilous strait, ignoble heaven closing infamous, Arjuna?"

(Chapter- II, Verse 2)

This grim situation in the battle field of life provides the background and framework for Lord Krishna to reveal "the greatest wisdom, more secret than secrecy itself Lord Krishna holds the hand of Arjuna in the same way as a father holds the finger of a toddler who is yet to learn the art of walking. The child does not know the ways of the world and therefore is unsure of every step. Man is born in fear, grows in fear, travels through various stages of life in fear and finally dies in fear. Arjuna is no exception to this phenomenon. Lord Krishna takes upon himself to rid Arjuna of the FEAR so that he could face life with knowledge and courage.

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Malady-remedy prescription suggested by Tagore and Lord Krishna to overcome fear is essentially identical and require transformation of the intellect, mind, heart and finally the soul. The impressions of the dead habits have to be identified, analysed, understood and erased so that we become free from our past and make a fresh beginning based on clear understanding and deriving perennial energy from concepts like truth, simplicity and fair play.

Lord Krishna unfolds the Art and Science of a fear-free mind in great detail in almost all the 18 chapters of Bhagvad Gita Commencing from the Chapter-II. Defining the goal for the troubled soul of Arjuna, Lord Krishna says:

“He whose mind is free from anxiety, undisturbed in adversity, indifferent amid pleasures, liberated from passion, fear and anger, he is called a sage of stable mind.”

(Chapter II, Verse 56)

Continuing on the need for harmonizing the body, mind and emotions and purging them of impurities, Lord Krishna says:

“There is no pure reason for the non-harmonized, nor for the non-harmonized is there concentration: for him without concentration there is no peace, and for the unpeaceful how can there be happiness”.

(Chapter II, Verse 66)

Having diagnosed the problem of a bewildered and chaotic mind and its attendant misery, Lord Krishna suggests the prescription.

“Whosoever forsakes all desires and goes onwards free from yearning, selfless and without egoism – he goes to peace”.

(Chapter II, Verse 71)

Further, Lord Krishna asks Arjuna not to depend on any external help or chance factor for this evolution to take place. With stunning brilliance and clarity, Lord Krishna advises Arjuna:

“One should live oneself by one’s own efforts and one should not degrade oneself: for one’s own self is one’s friend and one’s ownself is one’s enemy”.

(Chapter XI, Verse 5)

These are the steps one has to tread to transform a turbulent mind into a peaceful mind. Then only the mind shall be without fear even in the face of worst of circumstances and life threatening events. Then only one realized the power of truth, the power of divine help and working of the laws of eternal and cosmic order. Without

reaching this state and personally gaining experience and insight into ever emerging and evolving situations and circumstances, the mind can never be free from fear. Mere reading of and listening to scriptures would not be adequate.

Lord Krishna takes Arjuna through the path of detached action, the path of renunciation, the path of meditation and self control, path of knowledge and realization and finally the path of supreme devotion. In fact, almost the whole of Bhagvad Gita from Chapter II to the Chapter XIII is essentially aimed at removing the doubts and fears of Arjuna in innumerable ways. Lord assures Arjuna:

“Even a little of this knowledge protects from great fear”.

(Chapter II, Verse 40)

Towards the close of Bhagvad Gita, Lord Krishna, the greatest teacher of all times who is very keen to relieve the misery of his disciple asked Arjuna :

“O Partha ! Have you heard all this with undivided attention? Has your delusion, caused by unwisdom, been destroyed, O Dhanajaya!”

(Chapter XVIII, Verse 72)

In reply to this specific question of the Divine Teacher, Arjuna said :

“My ignorance has been destroyed, I have gained knowledge through your grace (My memory has been revived). O Immutable one. I am firm, my doubts have fled away. I will do according to your word.”

(Chapter XVIII, Verse 73)

What is the upshot of all this narration and understanding stemming out of it? It is the mind and heart which connects the internal with the external. External shall not always be to our liking as it is a product of inter-play of countless factors and forces. Not all of them are under our control. While make every possible effort to enrich the external environment and making it amenable to our requirement, much greater attention needs to be paid to the working of internal processes of the mind and continuously purging it of dross. The mind shall be without fear and the head would be held high when there is nothing to hide; when nothing remains to be achieved when there is no desire for recognition nor any heed paid to insults; there is no fear that the other may notice one’s shortcomings and when even the protection of the body self ceases to have any meaning. Two wheels of freedom from fear are renunciation with knowledge and acceptance of the station of life in which one finds oneself. Both the Great Masters have given us the same lesson.

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## **PROGRAMME SCHEDULE**

**DAYONE**

**February 25, 2009**

1400 Hrs

Registration of Delegates

1800 Hrs

Formal Reception & High Tea

**Conference Chair**

**Dr. Ravi K Dhar**  
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**DAYTWO**

**February 26, 2009**

**Convenor**

**Dr. (Cdr.) Satish Seth**  
**Director**  
**JIMS, Kalkaji**

1000Hrs

INAUGURATION

1130Hrs

TEA

1145Hrs

Session I:  
**Genesis of the US Economic meltdown**

**Organising Secretary**

**Prof. S. C. Sharma**  
**Head, Dept of Management**  
**JIMS, Vasant Kunj**

1315Hrs

LUNCH

1400Hrs

Session II:  
**Financial Sector Deregulation & State Control**

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Mr. Ankur Lal, CEO, Infozech  
Mr. Sushant Nigam, Member Representative,  
DIAL, IGI Airport, New Delhi

1530Hrs

Session III:  
**Privatization, Public Opinion & Civil Society**

1645Hrs

TEA

**DAYTHREE**

**February 27, 2009**

1000Hrs

Session IV:  
**US economic Meltdown & the Emerging Economies**

**Programme Coordinator**

Dr. Durgesh Narain      email id: dnrainjims@yahoo.com  
JIMS, Vasant Kunj      Mobile: 9871839549

1145Hrs

TEA

1200Hrs

Session V:  
**Sectoral Corporate Strategies in the post-meltdown period**

**Faculty Coordinators**

Dr. Silky Vigg Kushwah      email id: silky\_vigg@yahoo.co.in  
JIMS, Vasant Kunj      Mobile: 9899207450

1345Hrs

LUNCH

1430Hrs

Session VI:  
**International Financial Architecture for the 21<sup>st</sup> Century**

1630 Hrs

Session VII  
**International power-equations in the post-meltdown period**

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