CAPITAL STRUCTURE DECISIONS - A CASE STUDY OF RELIANCE INDUSTRIES LIMITED

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Capital structure practices/decisions assume vital significance in corporate financial management as they influence both return and risk of equity owners of corporate enterprises. Whereas excessive use of debt may endanger their very survival, a conservative policy deprives them of its advantages in terms of magnifying the rates of return to their equity owners (for details, see: Jain and Yadav, 2005). Given an overwhelming significance of the subject, a holistic and in-depth study of RIL, India's largest corporate house, related to its capital structure decisions and practices over the years 2001-2009, has been attempted here.

Introduction

Company Profile of RIL

In the year 1966 the RIL was founded by Shri Dhirubhai H. Ambani and it was started as a small textile manufacturer unit. On May 8th, 1973, RIL was incorporated and confirmed their name as RIL in the year 1985. Over the years, the company has transformed its business from manufacturing of textiles products into a petrochemical major. RIL is the largest private-sector enterprise in India in terms of revenues, profits, net worth, assets and market capitalization. Its operations capture value addition at every stage, from the production of crude oil and gas to polyester, polymer and chemical products, and finally to the production of textiles. The company operates mainly in India but has business activities and customers in more than 100 countries around the world. It has production facilities at three major locations in India and a further four locations in Europe. It also has exploration and production interests in India, Yemen and Oman. The year 2005-06 was a landmark year in the history of RIL. It marked a new strategic decision to unlock value for its shareholders by reorganizing RIL's business through a process of demerger. In this process, RIL's investments in power generation and distribution, financial services and telecommunication services were demerged in to 4 separate entities. RIL's shareholders received shares in the new entities in the same proportion of their equity holdings in RIL. The successful implementation of the largest demerger process in Indian corporate history has demonstrated RIL's ability to seed new businesses, gain leadership

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in each of these businesses which are large enough to be independent and thereby create value for RIL's shareholders.

For better exposition, this paper is divided into eight sections. Section I provides the objective, rationale, scope and methodology of the paper. Section II entails a detailed literature review of the myriad aspects relating to capital structure. Section III describes capital structure practices of RIL in terms of major capital structure ratios, namely, debt-equity (D/E) ratio and total debt to total assets (D/A) ratio. Composition of debt in term of (i) long-term debt to total assets ratio, and (ii) relative share of secured loans to total borrowings, is explained in section IV. The other equally important aspects to examine capital structure practices are: (i) whether RIL has a preference for long-term or short-term sources of finance; (ii) whether RIL prefers debt or equity dominated capital structure. These and other capital structure related aspects constitute the subject matter of these two sections. The risk considerations reckoned by RIL in designing their capital structure are examined in section V. The capacity to service interest by RIL has been analyzed in section VI. Section VII discusses the role of funds flow to determine the capital structure and hence the financing pattern of the company. This section will enable the reader to have a clear understanding of the application of funds and their sources. Concluding observations are contained in section VIII.

Section I

Objective, Rationale, Scope and Methodology

The objective of the paper is to have a comprehensive analysis of the capital structure decisions of RIL over the past ten years (2001-2009) through a study of the financing pattern, capital structure ratios, operating leverage and financial leverage. The study has academic as well as practical significance. It will help in understanding the best practices the company has adopted to arrive at an optimum capital structure. The scope of the study is limited to RIL's financial performance for the ten year period 2000-2009.

Research Methodology

Research methodology adopted in the present study to analyze financial statement of RIL Ltd is as follows:

Secondary Data and Analysis: Most of the research was done based on secondary data. Secondary data source includes annual reports of the company, management

presentation to investors, research reports related to company, company press releases, online databases – Capitaline and ISI Emerging Markets.

Data Analysis: Financial ratios are used extensively for this study. The key financial ratios have been computed for all financing decisions. For example, debt-equity ratio, total debt to total assets ratio and interest coverage ratio are the main ratios to understand capital structure decision. All these ratios are computed on a year-to-year basis for RIL. To study the trends and implications, data has been divided into two sets. First set consists of years 2001-2005 and second set consists of years 2005-2009. Mean for both these sets and entire data set is calculated to understand the changes over the period. From statistical point of view, the first set and the second set samples have been considered as two independent samples. We have used't' test to ascertain whether financial decisions/ performance differed/changed during the second phase, *vis-à-vis*, the first phase.

Section II

Literature Review

The modern theory of capital structure begins with the seminal work of Modigliani and Miller (MM) in 1958. Since then, there has been a controversy in the financial literature as to whether the proportion of debt and equity in a firm's capital structure affects its value. The debate on optimal capital structure that leads to maximum market valuation and minimum cost of capital is enduring. MM approach states that given certain conditions like no taxes on corporate income and perfect capital markets, the cost of capital is not influenced by the firm's financing mix.

Schwartz Eli (1959) has attempted to develop a self contained theory of the financial structure of the individual firm. The theory is based on the assumption that firms maximize the market value of their shares and there exists an optimal capital structure. Wippern (1966) has examined empirically the relationship among risk, financial structure and capital costs for an industrial firm and his results did not support the Modigliani-Miller arbitrage argument.

Horrigan (1966) posits that financial ratios and accounting data provide very useful information and helps in long-term credit administration. Bierman Jr. (1967) examines the effect of capital structure on the cost of capital and argues that the debt versus common stock decision has a bearing on the cost of capital. Weston (1967) establishes that financial policy has a significant role to perform in influencing the value of the firm. Vandell and Pennell (1971) offer some guidelines for being flexible in tight money situations by comparing debt-equity financing in terms of critical factors.

Hamada (1972) has made a significant contribution in the context of the "standard version of the capital asset pricing model" and assuming the validity of the MM model of the entity value of the firm with leverage in the presence of corporate taxes, he developed formulae using only observable data to estimate the effects of a firm's leverage on the systematic risk, and expected rates of returns on its common stock.

Stiglitz (1974) extends MM hypothesis and claims that policies of debt-equity ratio or dividend-retention ratio or maturity structure of debt or the holding of assets in other firms, have no effect of the valuation of the firm. Weston and Brigham (1976) discuss capital structure and its effect on the cost of capital and argue that the modern view on the subject is most appropriately identified as a compromise between MM's thesis and traditional viewpoint. Jenson and Meckling (1976) in their theoretical research integrate elements from the theory of agency, the theory of property rights and the theory of finance to develop a theory of ownership structure of the firm.

Carleton and Silberman (1977) examine the relationship between financial leverage and rates of return and capital structure decisions. Kim et al. (1977) examine the effect of the capital structure rearrangements that violate the "me-first" rule which is defined as a prior arrangement to protect bondholders from uncompensated shifts of wealth from bondholders to equity holders through a change in the capital structure of the firm. Taggart (1977) presents an integrated model of corporate financing pattern. The model draws on the current theory of optimal capital structure, but places this theory in the context of the overall, ongoing financing decision. The present study contributes to the understanding of corporate financing patterns by including a market value debt-equity ratio as a determinant of long-term debt capacity and by using an estimation technique which explicitly accounts for balance sheet interrelationships.

Hong and Rappaport (1978) analyze the implications of optimal capital structure in capital budgeting decisions. Kim (1978) examines the issues of debt capacity and optimal capital structure when firms are subject to bankruptcy costs and corporate income taxes. The study shows that optimal capital structure involves less debt financing than the maximum amount of borrowing allowed by the capital market. Haugen and Senbet (1978) argue that bankruptcy penalties related to capital structure decisions cannot be of sufficient magnitude to act as an offset to the tax subsidy and hence provide reconciliation between MM theorem and observed firm behavior.

Fama (1978) along with Miller showed/suggested that Modigliani and Miller theorem holds when debt is risky as long as the shareholders and bondholders protect

themselves from one another. Gahlon and Stover (1979) suggest a methodology that incorporates the debt capacity component by focusing on the corporate level rather than on individual project, in evaluating capital budgeting decisions. Shelton (1981) in his study on implications of debt and capital structure has made an attempt to resolve the issue of unequal access to the debt market between individuals and firms by defining a certification premium for personal debt.

Heinkel (1982) in his study on capital structure derives a separating equilibrium involving capital structure relevance in an asymmetrically informed perfect capital market. Chen & Shimerda (1981) have done a component analysis on the myriad financial ratios available to help predict corporate performance and have tried to isolate the ratios most representative of the ratios based on the important factors such that the selected ratios capture most of the common information present in these factors. Castanias (1983) examines the shortcomings in empirical tests of the capital structure irrelevance hypothesis.

Stewart Myers (1984) propounds the pecking order theory on capital structure with information asymmetry and incremental financing choice as the basic underlying fundamentals. With the premise that information asymmetry does exist, it is typically the managers who have access to more information than the investors. Hence, to avoid paying more for new financing the managers would use the sources of finance in the following sequence – internal funds, outside debt and outside equity. This sought to break away from the Modigliani-Miller approach which built on the concept of information symmetry (perfect information) and stated that the choice of capital structure had no impact on the valuation of a firm.

Emery and Gehr Jr. (1988) show that a complex capital structure and its accompanying tax timing options contribute to the value of the firm. Baskin (1989) study concludes that debt leverage varies positively with the past growth and inversely with the past profits.

David Durand (1989) in his reflections on the MM hypothesis concludes that capital structure and dividend policy are among the important factors affecting stock prices. Gordon (1989) reviews the MM theory and posits that the main problem with the theory is the strong implication that perfect capital markets would have for the financial and non-financial firms through which the actual financial systems function. Mackie-Mason (1990) provides evidence of tax effects on the choice between issuing debt or equity. Landes and Loistl (1991) demonstrate the original idea of Modigliani and Miller.

Harris and Raviv (1991) summarizes Myers' pecking order theory's empirical implications – when equity is issued the market value of the firm's existing shares would fall, new projects would be preferred to be financed through internal sources or through low-cost

debt issues. Firms with lesser amount of intangible assets vis-à-vis the overall firm value would be more susceptible to information asymmetry. Hubbard & Kashyap (1992) support evidence that suggests that movements in internal finance can predict investment spending. This aspect has been studied using investment data of the US agriculture sector and the basic assumption is rejected in this sample case.

Ang and Jung (1993) in their study of a sample of South Korean firms find that the firms do not follow the pecking order popularized by Myers. Most firms rely on long term borrowing as the preferred source of finance instead of retained earnings as propounded by Myers (1984). However, these firms do exhibit similarities with other firms across the world in the sense that they are sensitive to default probability and taxes and understand and gain from information asymmetry. John (1993) posits that liquidity management has an impact on the costs of financial distress for the company. The author studies the liquidity ratios of different companies and comes up with a regression model on the debt obligations and the costs of financial distress amongst other aspects. The costs of financial distress basically include the costs of converting illiquid debt into liquid debt.

Helwege and Liang (1996) study the firms that issued an IPO during 1984-1992 by estimating a logit to predict external financing. Their results indicate that the probability of obtaining external funds is not related to inadequate retained earnings. It is seen though that firms that have surplus cash reserves avoid external financing. Hence the firms that are participating in the capital markets do not follow the pecking order when deciding on the security to offer to raise finance. Chittenden, Hall & Hutchinson (1996) investigate the financial structure of small firms in the UK with an objective of growth and with access to capital markets. Their findings suggest significant relationships between financial structure and profitability, asset structure, size, age and stock market flotation but not growth, except when the growth is rapid and is combined with lack of stock market flotation.

Bernanke et al. (1999) develop a dynamic general equilibrium model analyzing the role of credit market frictions in business fluctuations both from a qualitative and quantitative viewpoint. When outside financing is required, firms prefer debt to equity because of the low information costs associated with debt vis-à-vis equity. Existing testing strategies have been plagued with concerns over statistical power. For instance, a lot of studies rely on financing deficit regressions but Chirinko and Singha (2000) refute this. Also, the literal explanation of the pecking order hypothesis is practically irrelevant and the authors' goal is to look at a model which encompasses various aspects of the pecking order hypothesis. For example, incorporating a broad list of firm characteristics like Altman's Z-score and the market-to-book ratio leads to a large improvement in the pecking order's performance.

Burlacu (2000) in his study investigates the effect of announcements and equity components for 141 French CB issues. Frank & Goyal (2002) in their study of American firms from 1971-1998 find that while large firms did exhibit some aspects of pecking order behavior, it is not widely accepted as a conventional leverage concept. They define a notation involving the aspects of cash dividends, investments, net working capital, cash flows and the change in debt and equity to understand the veracity of the pecking order given by Myers.

However, Titman and Wessels (1988) provide evidence to the contrary. Chirinko & Singha (2000) indicate that their empirical evidence can neither evaluate the pecking order model, nor the static trade-off model and hence alternative tests are needed to identify the determinants of capital structure and also to distinguish amongst the competing concepts.

Myers (2001) states that there does not exist a universal theory on capital structure. Some of the popular conditional theories on capital structure are the tradeoff theory which states that firms seek debt levels that balance the tax advantages of additional debt against dangerously enhanced financial leverage and the cost of financial distress. This predicts moderate borrowing by taxpaying firms. The pecking order states that the firms would first prefer retained earnings, then outside borrowing and finally finance through additional equity. The free cash flow theory states that even high debt may increase value when a firm has operating cash flows that significantly exceeds the profitable investment opportunities. This is typically true for mature firms that overinvest.

Heaton (2002) studies the effect of managerial optimism and its role in raising corporate finance. Optimistic managers may believe that capital markets undervalue their firm's securities and so may decline positive net present value projects in case they require external funding. Such managers also overvalue their own projects and thus may wish to invest in negative net present value projects. This behavior may lead to an underinvestment-overinvestment tradeoff without even incorporating asymmetric information or agency costs.

Fama & French (2002) state that firms which are more profitable and have fewer investments have higher dividend payouts when compared with firms which are not as profitable or have higher quantum of investments. Though this confirms the pecking order model, it refutes the trade-off model. The tradeoff model suggests that the firms with more investments have less market leverage and lower long-term dividend payouts.

Bontempi (2002) propose a modified pecking order (MPO) model in which both the trade-off (TO) and pecking order (PO) models are nested. This model is especially useful for "hybrid" systems that Italian firms follow which splits companies into two

types – TO: firms with a long term optimal debt ratio towards which they converge and PO: firms for whom short term availability of internal funds for investment may interfere with the process of adjustment towards the target leverage. Benito (2003) in the study comparing capital structure practices of Spanish and British firms posits that in Spain which has a bank-based financial system, the "trade-off" and "pecking-order" effects are weaker in larger firms and in firms where the equity is held by financial institutions. The UK which has a market-based financial system is found to be more sensitive to financial characteristics of the firms when it comes to comparing the propensity to issue new debt vis-à-vis the propensity to issue new equity. However, factors like low nominal rate of interest in a stable macroeconomic environment are not factored into the study.

Daude and Fratzscher (2006) state in their study that a pecking order exists in cross border investments too amongst countries, based on two factors – information frictions and the quality of host country institutions. Buch, Koch and Kotter (2009) posit that there exists a pecking order in international banking activities by estimated an ordered probability of presence abroad (extensive margin) and the volume of international assets (intensive margin). Leary and Roberts (2010) have designed an empirical model and testing strategy that aims to address the statistical concerns with previous tests on the pecking order theory. Their results posit that incentive conflicts rather than information asymmetry drives the pecking order behavior.

Section III

Capital Structure Ratios

The objective of this section is to examine the financing pattern/policies RIL. We have attempted to attain this objective using well accepted capital structure ratios which are based on the relationship between borrowed funds and owners' funds. The major ratios used for the purpose of analysis are debt-equity (total shareholders' funds) and debt to total assets (net of depreciation and other intangible and fictitious assets) ratio. Total shareholders fund are equal to equity capital + preference capital + reserves and surplus – revaluation reserves – miscellaneous expenses not written-off. In the context of these ratios, we preferred to have debt inclusive of short-term debt as bank/cash credit which is ostensibly short-term but is generally renewed year after year and hence serves the long-term needs of the firm. In India, it has been a common practice to use short-term debt instruments like bank cash credit practically as long-term debt(for details, see: Jain and Yadav, 2005). Therefore, the exclusion of the short-term debt might present the distorted picture of the magnitude of debt (shown on the lower-side). This, then, constitutes the rationale to have a broader measure of debt which includes short-term debt obligations

also. Total debt, so defined, in our perception, is likely to indicate true and fair view of debt used by RIL *per se*.

For the purpose of analysis, we have employed book values, as shown in the balance sheet. Apart from convenience, book values have been preferred to market values in view of the fact that debt-equity ratio based on market value creates systematic bias in financial risk measures (for details, see; Chakraborty).

Table 1: Debt-Equity Ratio of RIL, 2001-2009

Years	Debt-Equity Ratio	Debt/Total Assets
2001	0.93	60.68
2002	0.78	56.85
2003	0.73	60.15
2004	0.69	61.2
2005	0.57	60.68
2006	0.49	53.47
2007	0.47	50.55
2008	0.45	51.31
2009	0.57	54.73
Max	0.93	61.20
Min	0.45	50.55
Mean 2001-2009	0.63	56.62
Mean 2001-2005	0.74	59.91
Mean 2005-2009	0.51	54.15

Debt-Equity (D/E) ratio: Relevant data in terms of Mean, Maximum Value and Minimum Value for 2001-2009 are presented in Table 1. The D/E ratio of the sample corporate enterprises lies in the range of 0.45 to 0.93 during 2001-2009. The mean value

of around 0.5 for 9 years period covered by the study signifies that debt has been contributing a third of the firms total funding requirements. Thus we can say company has cautiously raised debt from time to time and still maintained a overall solid debt position since the range over which D-E has fluctuated (0.93-0.45= 0.48) is large as compared to the mean (0.48/0.63 = 0.76).

However, as per the trend, a decline in debt-equity proportion has been noted since 2002. This may be because of the learning it got from the Dot Com Burst when there was a major cash crunch in market. Also during the general economic slowdown of 2008 company did not borrow much debt from market. It might seem reasonable hence, to assume that the company has a good reputation among investors. Also, since the de merger of RIL in 2005, the average debt has been reduced and offloaded.

Total Debt to Total Assets (D/A) ratio: Total debt (defined more comprehensively to include total borrowings + current liabilities and provisions – advance tax, i.e., virtually total external obligations) constitutes a significant source of financing assets (total assets – revaluation reserve – miscellaneous expenses not written off – advance tax) of RIL is also corroborated by total debt to total assets ratio (Table 1). Debt has been a source of financing nearly half of total assets of RIL during 2001-2009. The range over which D/A has fluctuated (10%) is small as compared to the mean (10/56= 0.19). Hence, it would be reasonable to say that RIL has not changed the financing mix to funds its assets over the 9 years period.

As per the trend, there has been a smooth downward trend for D/A of RIL over the years 2001-2008 since the company was having no trouble in raising money from primary market. However, during the general economic slowdown of 2008-2009 company had to look for debt as a source of finance since the primary markets were lacking liquidity.

Section IV

Composition of Debt

The preceding section has eloquently brought out the importance of debt for RIL. The present section examines composition of debt from following perspectives:

(i) The relative share of long-term debt in financing total assets,

(ii) The proportion of secured loans to total borrowings

Long-term Debt to Total Assets Ratio: The long-term debt to total assets (LTD/TA) ratio would indicate the extent to which the total assets of RIL are financed by long-

term debt. This ratio when viewed along with D/A ratio (discussed in section III) would reflect *albeit* indirectly the reliance of RIL on short-term borrowings and other current liabilities.

Table 2: Long-Term Debt to Total Asset Ratio and Amount of Secured Loans as a percentage of Total Debt for RIL, 2001-2009

Years	LTD/TA (%)	Secured/Total Loans (%)
2001	40.70	40.15
2002	40.44	74.98
2003	39.41	59.60
2004	37.81	54.67
2005	31.74	42.44
2006	30.51	35.04
2007	30.31	34.38
2008	30.93	18.11
2009	36.90	14.47
Max	40.70	74.98
Min	30.31	14.47
Mean 2001-2009	35.42	41.54
Mean 2001-2005	38.02	54.37
Mean 2005-2009	32.08	28.89

The data contained in Table 2 indicate that around than one-third (35 per cent) of total assets have been financed from LTD in the case of RIL. As per the trend, the LTD/TA ratio has declined over the 9 years period, 2001-2009. Also after the demerger in 2005 the average LTD has reduced showing a probable change in strategy of the new management.

However, from operational point of view, the above data, *prima-facie,* provide, though indirectly, the empirical evidence of a significant proportion of short-term external obligations in debt composition of RIL. This inference has been drawn when data related to LTD/TA ratio has been viewed along with TD/TA ratio (shown in Table 1).

Other things being equal, the RIL, in general, should prefer long-term borrowings to short-term borrowings. The reason is that short-term debt poses a more serious threat to the continued survival of corporate firms than the excessive long-term borrowings, as per Gupta's empirical study[1]. Therefore, the RIL is advised that it should endeavor to replace short-term borrowings wherever feasible by long-term borrowings in particular when the requirements are permanent in nature.

Secured Loans to Total Borrowings: It was also of interest to ascertain the relative share of secured loans to total borrowings of RIL during the period under consideration, 2001-2009. Table 2 shows that there have been two phases for RIL, the first phase during 2001-2004, wherein RIL has relied more on secured loans, and the second phase from 2005 to 2009, when the share of secured loan portfolio has reduced substantially. The second phase is of importance as during that phase RIL had no trouble raising cheap finance without giving any security. It also portrays the declining trend of secured loans in total borrowings of RIL over the years of the study, 2001-2009.

From the preceding analysis, it may be reasonable to conclude that RIL has a fair share of unsecured loans in their debt portfolio. This may be more a matter of market availability of funds and good reputation of RIL among investors. Obviously, the borrowers prefer unsecured loans to secured loans and since market had the excess liquidity RIL could easily raise unsecured loans.

Section V

Risk Considerations

The risks which a business enterprise is exposed to are of several types. Two of the notable ones are business/operating risk and financial risk. Although we are primarily concerned with financial risk for capital structure decisions, the discussion of business risk is in order as it serves as a guideline for finance managers to decide about the type of capital structure (for details, see: Jain and Yadav, 2005). In operational terms, if business risk (caused by operating fixed costs) is high, the company is expected to opt for low financial risk (emanating from the use of debt and senior securities, necessitating payment of fixed financial charges) on the basis of sound tenets of financial management so that total risk is within 'safe/tolerable' limits.

Thus, from the perspective of designing capital structure both business risks (measured by the degree of operating leverage, DOL) and financial risks (measured by the degree of financial leverage, DFL) are relevant. The objective of this section is not only to examine the gravity of business risk and financial risk of RIL but also total risk (indicated by the degree of combined leverage DCL).

Table 3: DOL, DFL and DCL of RIL, 2001-2009

Year	DOL	DFL	DCL
2001	2.40	1.30	3.26
2002	2.59	1.41	3.65
2003	2.48	1.32	3.28
2004	2.34	1.23	2.87
2005	1.92	1.16	2.23
2006	1.98	1.08	2.14
2007	1.83	1.08	1.98
2008	1.52	1.05	1.59
2009	1.64	1.10	1.80
Max	2.59	1.41	3.65
Min	1.52	1.05	1.59
Mean 2001-2009	2.08	1.19	2.53
Mean 2001-2005	2.35	1.28	3.06
Mean 2005-2009	1.78	1.09	1.95

Relevant data pertaining to mean and other positional values of DOL, DFL and DCL of RIL are contained in Tables 3. While calculating DOL we have assumed that the selling price of the product, the sourcing mix and the manufacturing mix remains constant throughout the period of study, 2001-2009. We can infer that RIL has never been exposed to extreme degrees of risks during the period under consideration, 2001-2009. Also, we can see that over the years RIL has maintained a policy of reducing both the risks.

There is a downward trend in DOL, DFL and DCL which helps us to conclude that RIL not only reduced its exposure to debt but also has reduced its fixed operating costs.

The respective mean figures of DOL, DFL and DCL are 2.08, 1.19 and 2.53 for 9 year period (2001-2009) covered by the study. Risk, *inter-se,* business risk is higher than financial risk. We feel that RIL seems to have financial leverage in safe limits as indicated by the data.

Section VI

Interest Service Capacity

The objective of this section is to examine debt service capacity in terms of periodic payment of interest of the RIL. Interest coverage ratio (earnings before interest and taxes/interest) is well accepted ratio for the purpose. Relevant data of interest coverage ratio (ICR) is shown in Table 4.

Table 4: Interest Coverage Ratio of RIL, 2001-20009

Year	Interest Coverage Ratio
2001	3.29
2002	3.43
2003	4.20
2004	5.39
2005	7.17
2006	13.20
2007	13.21
2008	17.86
2009	11.56
Max	17.86
Min	3.29
Std Deviation	5.28
Mean 2001-2009	8.81
Coefficient of Variation	59.9(%)
Mean 2001-2005	4.70
Mean 2005-2009	12.60

The mean interest coverage ratio, *prima-facie,* of RIL, by and large, may be considered satisfactory, the range being 3.2 (2001) and 17.1 (2008) during the period of the study (2001-2009). The mean ICR of 8.81 of 9-year period (Table 4) signifies that the operating earnings of the RIL are more than 8.8 times of their interest payment obligations. Further, as per trend, there has been an improvement (in terms of increase by more than 17 per cent CAGR) in the ICR over 2001-2009. From the paired comparison we can see that demerger has had a strengthening impact on the ICR for RIL, since the 't' value is insignificant for the two phases. Furthermore, to justify the above conclusion, we can look at the standard deviation for ICR which is 5.28 around the mean. This signifies that there has been huge improvement in the company's position in terms of interest coverage.

Paired samples t-test of ICR pertaining to RIL for phase 1 (before demerger) and phase 2 (after demerger).

Paired Samples Test							
	Paired Differences						
	Mean	Std. Dev.	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
			Lower	Upper			
2001-2004 2005-2009	7.904	3.67744	3.33785	12.4701	4.8060	4	0.0086

In sum, it is reasonable to conclude that a RIL is in safe zone of paying interest. It is for this reason that the RIL was able to go in for a large scale borrowing during 2009.

Section VII

Financing Pattern

How are the investments at RIL financed? Or, to put it more broadly, from where do corporations and firms in general, obtain the funds they use for making real investments? If there are certain common features of firms in different countries with respect to this

question, we speak of financing patterns. If they exist, financing patterns are an essential element of the financial system of a corporation.

Table 5: Common size funds flow statement of RIL for years 2001-2009

(All figures as percentage of total funds)

Bottom of FormYear	2009	2008	2007	2006	2005	2004	2003	2002	2001
Sources of funds									
Cash profit	26.99	71.87	61.5	42.51	100	61.41	82.13	22.56	100
Increase in equity	0.15	0.17	0	0	0	0	3.75	0	0
Increase in other net worth	24.76	3.98	18.55	0	0	0	0	35.6	0
Increase in loan funds	45.41	23.99	19.75	9.74	0	8.66	9.1	30.63	0
Decrease in gross block	0	0	0	0	0	0	0	0	0
Decrease in investments	0.55	0	0	35.41	0	0	0	10.02	0
Decrease in working capital	2.05	0	0	12.34	0	21.88	4.72	0	0
Others	0.08	0	0.2	0	0	8.06	0.3	1.19	0
Total Inflow	100	100	100	100	100	100	100	100	100
Application of funds									
Cash loss	0	0	0	0	0	0	0	0	0
Decrease in net worth	0	0	0	0.62	5.33	2.53	9.7	0	21.19
Decrease in loan funds	0	0	0	0	20.13	0	0	0	26.25
Increase in gross block	97.7	55.91	50.14	94.98	28.85	39.19	47.14	77.88	21.21
Increase in investments	0	16.11	34.48	0	28.7	52.91	31.5	0	12.51
Increase in working capital	0	18.35	3.99	0	7.22	0	0	19.36	3.04
Dividend	2.3	4.52	4.77	4.4	9.74	5.35	7.88	2.31	8.58
Others	0	5.1	6.62	0	0.03	0.02	3.78	0.45	7.22
Total Outflow	100	100	100	100	100	100	100	100	100

Table 5 shows the common size funds flow statement of RIL for years 2001-2009. From this table, we can see that whenever possible cash profit has been used as a major source of financing. Also from time to time, like in 2002, 2007 and 2009 it has also injected fresh equity and preference shares to its capital structure. At times when it had to bear low profitability, RIL injected funds via loans as well. So we can see that RIL has always had a preference for cash profit to be invested back into the business which can be justified since cash at hand is the most readily available source of finance. The second preference for RIL managers have been loans. They do increase the leverage but also have a positive effect by improving the ROE and loans are a cheaper source of finance than equity. Also from time to time RIL has also released working capital which also helped finance other projects for RIL. This was achieved by improving efficiency of the firm.

Now if we look at the application of funds in Table 5, it is noticeable that there has never been a cash loss to the firm during the period of study, 2001-2009. Also we can see that over 50% of the funds are used most of times for purchasing plant and machinery which has increased the gross block of assets, especially during 2007, 2008 and 2009. Funds have also been ploughed back into the working capital whenever necessary. The major injections happened during the economic slowdown of 2008 and just after the Dot Com Burst. Both these times saw large companies crashing due to non-availability of cash to meet its working capital needs. However, RIL was able to survive the phase and also provide for the working capital needs of the firm.

From an investor's point of view, it seems that RIL has managed its finances pretty well and also has maintained a good investor relation, since even during the times of liquidity crunch in the market it was able to raise money quickly.

Section VIII

Concluding Observations

The study brings to fore that equity constitutes a major source of finance for RIL. As a result of equity dominated capital structure, RIL is exposed to low cost of financial distress. Financial distress includes a broad spectrum of problems ranging from relatively minor liquidity shortages to extreme cases of bankruptcy. However, RIL seems to be well conscious of the fact that they are beset with equity dominated capital structure; as a result, it is in better position to face bad periods compared to firms having high D/E ratio.

Another notable finding of the study is that there seems to be a significant portion of short-term debt in their total debt. Dependence on short-term debt to such a marked

extent in preference to long-term debt is not in conformity with the sound tenets of finance theory as it causes grave risk, at least, in terms of risk of non-renewal and interest rate fluctuations. Therefore, there is need for substitution of short-term debt with long-term sources, in particular, when the requirements are permanent in nature.

Yet another notable finding of the study is that RIL has just no problems of servicing debt in terms of payment of interest. However, we feel that there is a need for introspection on the part of top management/finance directors/senior personnel managing finance function to review their debt policy with a view to increase the magnitude of debt since it is a cheaper source of financing. It is also gratifying to note that RIL enjoys low financial risk (as per financial leverage), and excess interest coverage ratio.

In brief, RIL seems to have made a near perfect balance of debt and equity with equity just being on the higher side. As per sound principles of financial management, it is desirable that the business enterprises have 'unused debt capacity' for future needs in order to preserve operating flexibility and hence this decision of management can be supported.

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