Economics

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# Corporate Debt Analysis


## *Abstract*

- *The total debt for the sample companies analyzed (excluding financial and IT related sectors) over five year period 2011-2015 has been increasing at an annual compound average growth rate of 12.8%.*
- *Top 100 companies account for 72% of the total debt of the sample companies.*
- *The level of debt for the companies is significantly affected by investment made. Size in terms of sales also matters to a limited extent though the relation gets inverted in 2014-15.*
    - *Firms which have high level of investment tend to borrow more funds.*
    - *Larger firms borrowed more until 2014, after which size had a negative relation with total debt indicating that smaller firms borrowed more to compensate for the slowdown in profits while larger ones could have been deleveraging or borrowing less due to low or stalled investments.*
- *Relation between interest cover and debt-equity was not strong at the company-level.*
- *The same relation between interest cover and debt-equity ratio at industry level indicated inverse relation between interest cover and debt-equity.*
- *A size wise analysis shows that small companies (less than 100cr net sales) have high debt-equity and have problems in debt service as the interest cover is negative. The larger companies have lower debt-equity ratio of less than 1 with interest cover greater than 1. The medium size range of Rs 100-250 crore had debt-equity ratio of above 1 and interest cover of just about 50%.*
- *An industry wise analysis brings out the top debt-burdened industry groups: Iron and steel, Power Generation and distribution entities, Refineries, Telecommunications service providers and Engineering.*

# Corporate Debt Analysis

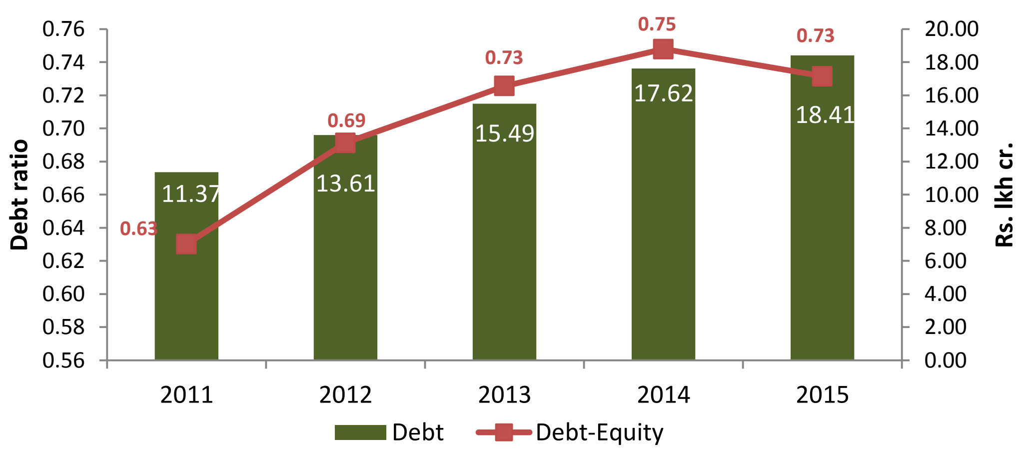
The Indian economy has been through differing business cycles in the last 5 years with a pick-up being witnessed in FY15 in terms of GDP growth which is likely to be sustained in FY16. Data reveals that investment tends to be higher when there is an upswing which in turn also leads to higher borrowings as companies tend to go in for expansion or diversification. Correspondingly, with a slowdown, there is a tendency for pressures to mount on the financial system on the servicing side. At the same time companies have also been pressurized into financing their inventories as the recovery has only been gradual thus affecting them disparately.

The study based on the financials of 3115 companies (excluding financial and IT segments) on corporate debt examines certain facets which have come to typify the market. The study is in five parts.

- First it looks at how total debt has moved over the last five years.
- Second the study relates debt across the corporate sector with two critical factors that affect the borrowing decision of the company, that is, net sales (size) and capital formation as denoted by gross fixed assets and capital work in progress.
- Third the relation between debt and interest cover is examined.
- Fourth debt has been looked at from the point of view of size of companies.
- Last, the debt profile of various industries is presented.

## A) Movements in total debt

**Exhibit 1: Movement in total debt (2011-2015)**




Source: ACE Equity

- Exhibit 1 shows the growth total debt for the period 2011-15. There is a consistent increase in the amount of debt taken by the companies (excluding the financial sector and IT and ITES companies) although the increase is at a decreasing pace.
- Total debt of the sample companies increased from Rs 11.37 lkh crore in FY11 to Rs 18.41 lkh crore in FY15, growing hence by a CAGR of 12.8%.

- The growth in net worth of the companies has also seen an upward trend which has helped keep the debt-equity ratio in short range despite increases in the overall borrowings of the companies for the five year period.
- On a point to point basis the debt-equity ratio increased from 0.63 to 0.73 during this period.
- The top 100 companies in terms of debt accounted for 72% of the total debt of the sample companies.
- The top 20 companies in the above mentioned categories account for 43% of the total debt take by the sample of 3,115 companies in 2015.
- A closer look at the sample indicates that top debtors are in the following industries:
    - Iron and steel
    - Power Generation and distribution entities
    - Refineries and
    - Telecommunications service providers

**B) Factors affecting total debt**

An econometric analysis for a period of 5 years has been done over a sample of 2,253 companies after cleaning the sample. The hypothesis tested is whether or not GFA and sales affects the level of debt. The former indicates capital formation or investment, while the latter indicates size of firms thus positing whether companies which grow in size tend to borrow more from the market. The gross fixed asset of the company is defined as the sum of gross block and capital-work-in-progress of the company.

Table 2 gives the coefficients for Net Sales and Gross Fixed Assets for five years along with the variation explained in total debt by these factors as indicated by R-squared value.

**Table 2: Econometric Analysis**

| | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|
| R-square (%) | 83.7 | 84.9 | 84.5 | 87.1 | 87.8 |
| Coefficient for GFA | 0.33*** | 0.37*** | 0.39*** | 0.42*** | 0.44*** |
| Coefficient for Net Sales | 0.04*** | 0.05*** | 0.31*** | 0.01*** | -0.05*** |

Source : ACE Equity

**** significant at 0.01%*

- The value of R-square explains what percentage of the relationship may be explained by these two factors: sales and gross fixed assets of the company.
- The value of R-square is above 80% for all five years and shows a gradual increasing trend thus indicating a strong relation.
- The coefficient of GFA is significant at 1% level of significance and remains so for all the years. The coefficient value of 2011 implies that if the gross assets of the company increased by Rs.1cr, the debt of the company went up by Rs.33 lacs.
- The coefficient of Net sales is also highly significant (at 1% level of significance), although the coefficients' value indicate that it is lesser important than gross fixed assets of the companies.
- The coefficient of Net Sales is an interesting parameter which turned negative in FY15. Although, the net sales of the company directly affect the debt taking willingness of the company, there seems to reversal in relation for the current year. This may be due to the fact that the larger companies have deleveraged in FY15, which may be expected to continue as companies sell off assets to repay debt. The smaller ones have also taken more recourse to debt.

- Companies borrow money with the expectations of higher demand leading to investment as well as to finance inventory in times of a slowdown. The demand for debt had been increasing with net sales until 2013 as the companies' performance showed improvement. However, the effect of net sales on debt amounts started reducing thereafter.

**C) Interest Cover and Debt-Equity**

The impact of debt equity ratio on interest cover was examined next at two levels: company and industry. The company based regression involved a sample of 3,522 companies for FY15.

The regression analysis shows that debt-equity explained just 0.06% of interest cover with the coefficient not being significant. The coefficient had a negative sign.

At the next stage, the same relation was examined across 62 industry groups to test whether higher debt equity ratio leads to a lower interest cover.

- For 62 industries comprising 3,522 companies, the debt-equity ratio for the industry explained around 6% variation.
- The coefficient for debt-equity came out to be statistically significant at 5% level of significance with a negative sign. This indicates that the ease with which the company can repay its outstanding debt is reduced with increase in the debt-equity ratio of the company.

**D) Size-Wise Analysis**

This section breaks down the sample of 3,473 companies (excludes finance and IT) by size for FY15, to see how the borrowing capacity of the companies differs across various size groups. The size groups have been defined on the basis of net sales figure for the year 2015.

Table 3 gives the details of the sample of companies across various size groups.

**Table 3: Size wise Analysis**

| Size Group Rs crore | No. of companies | Net Worth(Rs. Lkh cr.) | Total Debt(Rs. Lkh cr.) | Net Sales (Rs. Lkh cr.) | Debt-Equity | Interest Cover |
|---|---|---|---|---|---|---|
| **Above 1000** | 513 | 21.80 | 15.52 | 40.25 | 0.71 | 3.49 |
| **500-1000** | 293 | 1.42 | 1.30 | 2.07 | 0.92 | 1.48 |
| **250-500** | 320 | 0.77 | 0.75 | 1.18 | 0.97 | 2.77 |
| **100-250** | 495 | 0.62 | 0.80 | 0.81 | 1.30 | 0.51 |
| **Less than 100** | 1852 | 1.41 | 1.38 | 0.44 | 0.98 | -0.16 |

Source: ACE Equity

- The companies in sales group above 1000 account for 79% of the total debt of the sample of companies while the companies in the size group 500-1000 have only 7% share in total debt.
- Large companies are concentrated in iron and steel, refinery, automobiles, pharmaceuticals and infrastructure-oriented companies (like cement, construction, engineering and telecommunications). These companies have large capital requirements for which they need to borrow funds. The debt-equity ratio for

such companies is however relatively lower than the other size groups as their net worth is higher than their debt.

- Companies in the size group Rs 250-500 cr include textiles, auto ancillary, construction, cable, paper and wood, electrical equipment and FMCG firms. The interest cover for these companies is the high at 2.77 while debt-equity is comfortable at 0.97. These companies have a share of 4% in total debt.
- The small sized companies with net sales of less than Rs.100 cr face serious debt service problem since these firms have the highest debt-equity ratio but low interest cover to finance this debt. These companies form more than half our sample but only account for 5% of net worth and 1% of net sales. The proportion of debt held by this sub-sample (equal to 7% of total debt) is same as that of large companies in the group 500-1000.

### E) Industry wise Analysis

An industry wise analysis for 61 industries for the sample of 3,210 companies reveals the following:

- **Total Debt was significantly high for core sector group** – power generation/distribution, iron and steel, refineries, engineering, construction, oil exploration.
  - Power generation/distribution has 17% share in the total debt among the industry groups closely followed by iron and steel with a 16% share and refineries with 12% share.

- **Debt-equity is more than 1 for 20 industry groups** : These are sugar, textile, breweries, solvent extraction consumer food, paper & paper products, packaging, film production, TV broadcasting, hotels, resorts and restaurants, engineering, iron and steel, cable, diamonds & jewelry, power generation & distribution, fertilizers, miscellaneous, ceramics& marbles, plastic products and ports.

- **Interest Cover was more than 5 for 18 industry groups** : These are household & personal products, cigarettes & tobacco, mining, oil exploration, metals, electronics, agriculture., pesticides, ACs, pharmaceuticals, refineries , automobiles, auto ancillary, leather, bearings.

**Table 4 : Top industry groups with highest debt volumes for FY15 are given below**

| Industry | No. of Companies | Total Debt (Rs. lkh cr) | Debt-Equity | Interest cover |
|---|---|---|---|---|
| Power Generation/Distribution | 39 | 3.26 | 1.13 | 2.45 |
| Steel and Iron | 145 | 2.98 | 1.27 | 1.51 |
| Refineries | 8 | 2.28 | 0.68 | 5.63 |
| Engineering | 312 | 1.55 | 1.32 | 1.45 |
| Telecommunication | 29 | 1.16 | 0.72 | 3.75 |
| Textile | 375 | 0.92 | 2.17 | 1.15 |
| Construction - Real Estate | 178 | 0.56 | 0.84 | 1.54 |
| Oil Exploration | 19 | 0.48 | 0.21 | 27.93 |
| Pharmaceuticals & Drugs | 149 | 0.47 | 0.38 | 5.93 |
| IT (excluding IT-software) | 35 | 0.27 | 0.76 | -0.92 |
| Cement & Construction Materials | 40 | 0.36 | 0.92 | 2.59 |
| Automobile Two & Three Wheelers | 34 | 0.33 | 0.38 | 5.35 |
| Fertilizers | 27 | 0.33 | 1.08 | 1.67 |
| Sugar | 42 | 0.30 | 3.74 | 0.02 |
| Aluminium & Aluminium Products | 21 | 0.30 | 0.59 | 2.79 |
| Consumer Food | 119 | 0.26 | 1.69 | 0.22 |
| Electric Equipment | 54 | 0.21 | 0.47 | -0.23 |
| Plastic Products | 101 | 0.20 | 1.00 | 2.12 |
| Diamond & Jewellery | 36 | 0.19 | 1.16 | 1.73 |
| Chemicals | 142 | 0.18 | 0.59 | 3.16 |
| Hotel, Resort & Restaurants | 57 | 0.17 | 1.39 | 0.71 |
| Trading | 166 | 0.14 | 0.53 | 1.61 |
| Transmission Towers / Equipment | 8 | 0.14 | 0.53 | 1.61 |

Source: ACE Equity

**Concluding Remarks**

- The debt situation varies across industries with some of them being more vulnerable given the nature of the product dealt with.
- The core sector companies have been affected significantly as delays in project completion and increasing costs force these companies to increase their borrowing.
- More than size of companies, debt is linked with capital formation i.e. investment.
- Larger companies are better off than smaller ones. Small companies get affected sharply as they have challenges on sales, receivables and inventories which affects their profits and hence debt servicing ability.
- At the industry level, interest cover is related to debt-equity ratio.

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