

Performance Metrics of Unlevered Firms- An industry wise analysis

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ABSTRACT

Finance managers are always confronted with a dilemma regarding choosing the right source of finance to fund their business projects. Theoretically they may be guided by the various capital structure theories that purport the use of adequate proportion of debt and equity funds in the capital structure. A finance manager who is facing the debt-equity dilemma and favours an all equity stake, can draw inferences from studying the performance of various debt free firms before taking a decision. This paper compares the financial performance metrics of unlevered firms vis-a-vis their industry averages and attempts to identify certain commonalities among them that steers them toward higher returns for the company and to the shareholders. The result indicates most of the performance ratios of unlevered firms are on par with the industry averages. However, debt-free firms had lower PB ratio and Asset Tangibility when compared to the industry.

Keywords: Capital Structure, Zero Debt, Financial Leverage, Financial Performance, Corporate Finance.

INTRODUCTION:

Deciding on the right capital structure is a critical issue for every finance manager. The risk-return trade-off between employment of equity and debt funds in the capital structure is a complex decision and it must be taken with utmost care because of its potential consequence to the profitability and solvency.

Theoretically, an optimum capital structure is that debt-equity mix at which market value of the firm is high and the cost of capital is minimum (Ganguli, 2013). In the field of financial management there are well-established theories, like Net Income Approach and Modigliani Miller Approach, that justifies inclusion of debt in the capital structure to magnify shareholder's return and thereby increase firm value under favourable circumstances. The role of financial leverage in magnifying the return to the shareholders is based on the assumption that debt is a cheaper source of finance and it also provides a tax shield(Modigliani & Miller, 1958). There are many companies which do not have any debt in their capital structure, yet their performance in terms of EPS, market value or shareholder returns is remarkable. Most prominent examples are Infosys, Abbott, HUL, CRISIL, Just Dial, Geojit, Gillette etc. The questions confronting a finance manager who is facing the debt-equity dilemma and who favours an all-equity stake are: How are these companies performing when compared to other firms (leveraged and unlevered) in the same industry? What are the common features that distinguish debt-free firms from the industry? Insights on the performance and profile of debt-free firms would definitely aid in striking the ideal capital structure for the business.

LITERATURE REVIEWS:

Theories and concept of capital structure:

Ajao and Ema (2013) did a study on the factors influencing the capital structure of the firms in various countries such as Ghana, Turkey, Libya, Pakistan, South Africa, India, Nepal, UK, China, United States and Egypt. Their focus was on how the particular theory influences the firm's capital structure. The major factors affecting the nature of the capital structure were the political, capital market, cultural, fiscal and monetary policies and they suggested that these should be considered carefully.

Capital Structure:

Studying the capital structure of firms in the UK, Brav, O. (2009) found that the public unleveraged firms outnumbered the private firms. Many of the public firms were diverting towards the unlevered capital structure as they had direct access to developed equity capital market. Lee & Moon (2011), confirmed that zero debt firms have better performance over the longer period of time under the Fama-French factors. Zhu and Wang (2013), found that the equity-financed firms belong to high competitive industries and which are at the edge of tremendous growth, extension and development. Considering the Indian firms from the study undertaken by Santanu K. Ganguli (2013), the established firms' managers are advised to go for equity in the capital structure rather than debt financing. The study made by Nixon and Bacon (2012) revealed that firms with good profits give out a high dividend and go for unlevered financing in their capital structure. Ferrao, Curto and Gama (2016) disclosed that the firms are likely to become Zero debt as the volatility of asset increases.

Zero leverage and ultra-leverage (unlevered firms):

In the UK, the firms with sufficient internal resources and high growth prospects prefer to remain debt free and sustained the business with only equity capital. At the same time, they had a high dividend pay-out ratio (Dang, 2009). According to Tarek S. Zaher (2010), the investor prefers to make an investment in firms which are debt free as they produce higher returns compared to the levered firms. This is how the investors reward the unlevered firms and they will be freed from the burden of debts at the season of a market downturn. The investors as a whole prefer the debt-free firms that have large cash reserves; at least for two consecutive years. The unlevered firm tends to perform better than their peer leverage firms because of the positive outlook of the investors as they are depicted in the growth and assessment of the firms (Deb & Banerjee, 2015).

The answer to 'why some firms are unlevered?' by Devos, E. et al., (2012) communicates that the firms are unlevered because they are young, small, conservative to cash flow and have less access to borrowings as banks are hesitant to provide the requirements. In contrary to it, the listed firms of China, face another situation where the unlevered firms are the result of experienced Managers and Female Executives who contribute to the factors of the low levered firms (Chen, Zhang, & Liu, 2014). The zero debt firms pay higher dividends, taxes and have more cash balances compared with the levered firms and they are found to be constant over the extended period of time. The family firms, large CEO ownership and sociable CEO are prone to be zero-levered in their policies (Strebulaev and Yang, 2013). The reason for some firms to go debt free is due to financial borrowing constraints and the capability to retain the convenience of equity financing (Broun & Xu, 2013).

SIGNIFICANCE OF THE STUDY:

Studies have shown that more and more companies are moving towards being debt free and the percentage is increasing by 20% among the US firms (Byoun & Xu, 2013). It would be interesting to note why such a trend is taking place even among the Indian firms.

Research Gap:

A prominent number of studies have been done on unlevered firms comparing their performance with leveraged firms, but they have not focussed on the financial performance of zero debt firms exclusively. Further, none of the previous studies have done an industry-wise analysis to identify common aspects underlying zero debt firms to study a pattern amongst them.

Objectives:

1. To compare the financial performance of unlevered firms in relation to their industry average in terms of Profitability, Stock Price, Asset Structure and Cash Flows.
2. To identify coherences among the performance metrics of unlevered firms.

METHODOLOGY:

Sampling Technique, Sample Size and Sample Selection:

Non-probability sampling method, such as judgemental sampling method was adopted to select the companies for the study. The sample consists of unlevered firms which are listed in both the reputed Stock Exchanges of India – BSE and NSE. The firms have the common feature of zero long-term and short-term borrowings in their capital structure for three consecutive years and the period range is from 2013-2016. The study is restricted to 15 companies grouped under five sectors; satisfying the required criterion. The classification of sectors is done as per the CMIE Prowess IQ Database, which is one of the most consistent source of information for the financial performance of listed and unlisted companies in India. The benchmark for the market price of the shares of selected companies is above Rs. 140 trading in 2017 and the face value is either Rs. 1 or Rs. 10. The shares of companies trading below Rs. 140 in the same year were not considered for the study. All the selected companies have been in existence for more than 20 years. The data has been drawn from the standalone financial statements of Indian operations as given in the BSE. Majority of the selected low-levered firms are the top best-performing companies in their industry.

The list of 15 unlevered firms selected for the study is listed below according to their sector classification based on Prowess IQ:

Computer Software: Infosys Ltd, Hexaware Technologies Ltd, Oracle Financial Services.

Cosmetics, Toiletries, Soaps and Detergent: Hindustan Unilever Ltd, Procter & Gamble Hygiene & Health Care Ltd, Colgate-Palmolive (India) Ltd.

Business Services Consultancy: CARE Ltd, CRISIL Ltd, Just Dial Ltd.

General Purpose Machinery: Shanthi Gears Ltd, Schaeffler India Ltd, SKF India Ltd.

Drugs & Pharmaceuticals: Abbott India Ltd, Sanofi India Ltd, Merck India Ltd

Data Sources:

The study is based on secondary data gathered from BSE India and CMIE Prowess IQ. Further, research papers, journals and textbooks, internet-based research libraries like ProQuest, SSRN, JSTOR, and Google Scholar were also used extensively for the purpose of this study. Financial statement ratios of the selected companies for three years -2013-14, 2014-15 and 2015-16 and their corresponding industry averages were obtained using the PROWESS IQ (CMIE) Database.

Variables:

Fourteen performance metrics were selected for the study and were grouped under four categories viz., Asset Structure ratios, Profitability ratios, Stock Performance ratios, and Cash flow ratios; to measure the financial performance of unlevered firms.

Stock Price: Price Earnings (PE), Price to Book (PB).

Profitability: Net Profit (NP), Return on Equity (ROE), Return on Total Assets (ROA), Return on Capital Employed (ROCE), Operating Profit Margin, Earnings per Share (EPS).

Asset structure: Fixed Asset to Current Asset, Asset Tangibility, and Current Ratio.

Cashflows: Absolute Cash flows, Dividend Pay-out.

Statistical Tools Employed:

The data was formulated with Microsoft Excel 2016 and Data analysis was organised by means of software package - IBM SPSS (Statistical Package for Social Sciences) version 21. T-test and One Way ANOVA was used to analyse the data.

ANALYSIS AND INTERPRETATION:

Objective 1:

To compare the financial performance of unlevered firms in relation to their industry average in terms of Profitability, Stock Price, Asset Structure and Cash Flows.

In order to ascertain whether the financial performance of the selected unlevered firms were different when compared to their respective industry averages, the average performance metrics of the selected companies, under the five different sectors, were compared with their respective industry averages. One-Samplet-Test was used to test the following hypothesis:

H0: There is no significant difference in the performance of unlevered firms and the industry with respect to Profitability, Stock Price, Asset Structure and Cash Flows.

H1: There is a significant difference in the performance of unlevered firms and the industry with respect to Profitability, Stock Price, Asset Structure and Cash Flows.

Table 1 reveals that with respect to Price to Book ratio (p values: 0.000 - 0.002) and Asset Tangibility (p values: 0.000 - 0.003) the average performance of all the debt-free firms under study show significant differences when compared to the industry averages. In addition, Pharma firms show significant differences in Absolute Cash ratio (p-value: 0.029) and Cosmetics firms reveal significant differences in dividend pay-out (p-value: 0.005). In fact, it is the only group with a high dividend pay-out ratio when compared to the industry. As the p-value < 0.05 in these cases, the null hypothesis is rejected. It is inferred that there is a significant difference in the financial performance of unlevered firms and the industry with respect to the Price to Book Ratio, Asset Tangibility, Absolute Cash ratio and Dividend pay-out. For all other ratios, as the p-value > 0.05, the null hypothesis is accepted, and it is concluded there is no significant difference in the performance of unlevered firms and the industry.

Objective 2:

To identify coherences among the performance metrics of unlevered firms.

In order to understand whether the selected unlevered firms have any common aspects within the group and between the sectors, a One Way ANOVA was performed to test the following Hypothesis.

H0: There is no significant difference in the Profitability, Stock Price, Asset Structure and Cash Flows among the unlevered firms (i.e. there are coherences among the unlevered firms)

H1: There is significant difference in the Profitability, Stock Price, Asset Structure and Cash Flows among the unlevered firms (i.e. there are no coherences among the unlevered firms)

In Table 2, One-Way ANOVA is significant ($p < 0.05$) for the following ratios: Price to Book Ratio (p-value: 0.004), Net Profit Ratio (p-value: 0.011), Return on Equity (p-value: 0.010), Return on Total Asset (p-value: 0.009) Return on Capital Employed (p-value: 0.010), Operating Profit Margin (p-value: 0.021), Asset Turnover Ratio (p-value: 0.030). Hence, we reject the Null Hypothesis and conclude that there are no coherences among the unlevered firms with respect to the above performance metrics.

The Post hoc Test of the Price to Book Ratio and Return on Capital employed indicates the mean differences of Cosmetics, Toiletries, soaps and detergent firms with Drugs and Pharma, Computer software and General-Purpose Machinery. The Net profit of business consultancy has mean differences with drugs and Pharmaceuticals and General-Purpose Machinery. The Return on Equity and Return on Total Asset of cosmetics toiletries soaps and detergents have mean differences with drugs and pharma and General-Purpose Machinery. Operating profit margin of business consultancy has mean differences with drugs and Pharmaceuticals. The asset turnover of Cosmetics Toiletries, soaps and detergent have mean differences with business consultancy and computer software. One-way ANOVA is not significant ($p > 0.05$) for the following ratios: Price Earnings ratio, Earnings per share, Absolute cash ratio, dividend pay-out, Asset tangibility, Fixed Asset to current Asset and current ratio. Hence the Null Hypothesis is accepted and conclude that there are coherences among the unlevered firms with respect to these metrics.

FINDINGS & DISCUSSION:

Comparison of performance of unlevered firms and the industry:

- a. Out of the 14 performance metrics of debt-free firms compared with the industry averages, it was found that only with respect to four metrics such as the Price to Book ratio and Asset Tangibility (all firms), Absolute Cash ratio (Pharma) and Dividend pay-out ratio (Cosmetics) there were differences in performance. On all the other ten metrics, the performance of debt-free firms was on par with the industry. The Profitability, Performance, Asset Structure and Cash Flow indicators of the T-Test confirm that the unlevered firms hold the same standard with the industry average which includes both levered and unlevered. This signifies that absence of debt finance in the capital structure does not impact the firm's performance. This is in consonance with MM's Theory of Irrelevance (Modigliani & Miller, 1958).
- b. The drugs and Pharma group shows a difference in the absolute cash ratio compared to the industry, whereas all the other firms show similarities with the industry. Pharma companies under study are established cash-rich companies; therefore have more cash funds in hand (Deb & Banerjee, 2015).
- c. Cosmetics, toiletries, soaps and detergents firms generate high cash flow to pay dividends higher than the industry average and they reveal a policy of higher dividend pay-out. This aligns with the findings of Nixon and Bacon (2012) and (Dang, 2009).

- d. Unlevered firms revealed a higher average EPS, indicating that the absence of interest burden helped them maintain a better average than the industry. However, according to MM theory, EPS and ROE increase with leverage.
- e. The PB ratio of all the debt-free firms under study were above 1, but less than their industry averages. As a standard norm, if a company's share price is more than its book value (or has a P/B more than one), it indicates that market perceives either that the assets of the firm are understated, or the company is earning a very high return on its assets. Incidentally, the ROA of all the debt-free firms were much above the industry average. The presence of debt will increase a company's liabilities and in turn reduce the book value of its tangible assets, thus creating high P/B values. This explains the reason for lower P/B ratios of the debt-free firms when compared to the industry.
- f. Similarly, the Asset Tangibility of the debt-free firms is significantly lower than the industry average. It is only firms with debt financing that needs to have more tangible assets for providing collaterals on loans (Jensen, M. C. et.al, Oct 1976). Debt free firms can manage with lower investments in tangible assets.

Coherence among the unlevered firms:

- a. Most of the coherences were found with respect to Price Earnings ratio, Earnings Per Share, Absolute Cash Ratio, Dividend Pay-out Ratio, Asset Tangibility, Fixed Asset to Current Asset Ratio and Current Ratio among the unlevered firms. Thus indicating similar investor confidence in the growth potential of these firms, similarity in their earnings per share and dividend policies. The debt-free firms under study also showed coherences in their ability to pay off current liabilities with only cash and cash equivalents.
- b. However, there was no coherence with regard to Price to Book Ratio, Net Profit Ratio, Return on Equity, Return on Total Asset, Return on Capital Employed, Operating Profit Margin, Asset Turnover Ratio among the unlevered firms. The Cosmetics Soaps and Detergents firms revealed a higher book to price ratio as the companies in this group had a higher Market price for all the three years of the study. All the firms had varying profit earnings capacity. The Business consultancy firms earn higher net profit compared to the other firms, indicating the efficiency of management and advantageous position for the firms to survive in times of rising costs. Cosmetics Soaps and Detergents, Computer Software and Business Services and Consultancy are more efficiently generating their revenue from assets. Cosmetics Soaps and Detergents have a higher return on equity signifying effective and efficient operations. The Computer Software and Business Services and Consultancy utilise the capital employed profitably and efficiently.
- c. In general, it is found that most of the unlevered firms were similar with respect to Cash Flows and Asset Structure but significantly differed in terms of their profitability.

SUGGESTIONS:

- a. The profitability indicators such as Cash flows, Price earnings, fixed to the current asset, asset turnover and the current ratio of debt-free firms are on par with the industry averages. It is advisable for the finance manager favouring an all-equity structure to compare the firm's performance considering the above mentioned critical ratios for decision making.
- b. It is observed that young firms do not have debt in their capital structure in the early years as they have less access to debt finance. (Devos,E. et al., 2012). However, the companies selected in this study were all matured firms which had switches between debt and debt free phases. A finance manager may opt for a flexible capital structure which allows adjusting the debt-equity proportion according to the requirement of the firm.
- c. In the General Purpose Machinery sector, one of the firm had witnessed a significant decline in profits in 2014-15. On further introspection, it was found that the firm had settled a long-pending dispute and also had made huge investments in human resources and capital expenditures in the same year. Even in this scenario, the firm managed to earn higher EPS compared to the industry. Thus an all-equity structure could absorb such shocks, which would not have been possible if they had interest commitments.
- d. An all-equity capital structure does not have a need for hard assets to support as collaterals for external financing; hence huge investments in Tangible Assets can be avoided unless the nature of the business demands such investments.
- e. Businesses that do not require huge investments in tangible fixed assets such as Business consultancy, Information Technology, can comfortably manage without debt financing.
- f. According to the Pecking Order Theory (Donaldson, 1961 and Myers, 1984), the company's financing policy sends a message to the public regarding the company's performance. If a company finances itself through internally generated funds, it signifies its strength. On the other hand, if a company uses debt

financing in its structure it signals that the company is confident to meet its day today obligations . Mature companies should plough back profits rather than procure debt or issue fresh equity to finance growth and expansion. This insight is aligned to the findings of Lee & Moon (2011) and Santanu K. Ganguli (2013)

CONCLUSION:

This paper studied the performance of 15 unlevered firms, with zero long-term and short-term debt, operating in India. This empirical study examined the performance indicators such as profitability, stock price, cashflow and asset structure and compared with the corresponding industry averages. Interestingly, the performance of debt-free firms was 71.5 % (10 out of 14 metrics) on par with the industry performance. Two significant differences common for all debt free firms and the industry were with reference to Price to Book ratio and Asset Tangibility. The debt-free firms had lower PB ratio and Asset Tangibility when compared to the industry. This finding correlates with findings of previous studies that Asset structure of a firm influences the financing decision (Koralun-Bereźnicka, J. 2013).Thus a finance manager who favours an all-equity stake can confidently use insights from this study to take appropriate decisions for the firm.

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TABLES

Table 1: T-test showing Comparison of performance of unlevered firms and industry

Ratios		Evaluation of T-Test from 2013-2016															
		Mean				Std. Deviation				Sig.							
		Pharma	Business Consultancy	Computer Software	Cosmetics	General purpose machinery	Pharma	Business Consultancy	Computer Software	Cosmetics	General Machinery	Pharma	Business Consultancy	Computer Software	Cosmetics	General Machinery	
Stock Price Indicators																	
A	Price Earning (Times)	35.9 (44.17)	51.0 (52.0)	22.78 (22.5)	46.46 (46.58)	42.37 (032.64)	10.74	23.62	3.96	4.75	22.68	0.314	0.062	0.935	0.970	0.535	
B	Price to Book (Times)	5.13 (198.68)	13.72 (139.62)	5.96 (135.84)	28.32 (299.34)	3.66 (2.10)	2.53	5.79	1.35	12.61	1.36	0.000*	0.000*	0.000*	0.000*	0.000*	
Profitability Indicators																	
C	Net Profit %	9.33 (11.00)	32.55 (3.00)	27.22 (19.00)	13.89 (10)	8.37 (6)	3.51	16.55	3.98	1.54	2.01	0.497	0.093	0.076	0.059	0.134	
D	Return on Equity %	16.27 (12.6)	29.05 (1.97)	25.65 (25.10)	70.38 (35.87)	10.89 (10.67)	7.81	5.50	4.93	35.12	5.25	0.501	0.063	0.863	0.231	0.946	
E	Return on Total Asset %	8.42 (6.57)	17.54 (1.13)	17.54 (15.3)	23.09 (27.97)	8.28 (4.73)	3.50	4.61	5.94	4.25	3.87	0.456	0.055	0.849	0.087	0.253	

Evaluation of T-Test from 2013-2016													
	Ratios	Mean				Std. Deviation				Sig.			
		Pharma	Business Consultancy	Computer Software	Cosmetics	General purpose machinery	Business Consultancy	Computer Software	Cosmetics	General Machinery	Business Consultancy	Computer Software	Cosmetics
F	Return on Capital Employed %	16.27 (8.70)	29.05 (1.37)	25.65 (22.87)	70.37 (27.98)	10.89 (7.20)	7.81	5.50	4.93	35.13	5.25	0.235	0.113
G	Earnings Per Share in Rupees	93.89 (2.35)	32.77 (32.78)	63.70 (2.90)	50.33 (1.48)	51.67 (0.69)	51.46	13.89	56.73	51.68	53.90	0.091	0.055
H	Operating Profit (Times)	0.17 (0.25)	0.50 (0.17)	0.41 (0.30)	0.21 (0.16)	0.18 (0.15)	0.08	0.23	0.09	0.03	0.07	0.236	0.125
Cash Flow Indicators													
I	Absolute Cash (Times)	1.98 (1.02)	4.52 (4.53)	3.77 (1.22)	0.873 (0.29)	1.86 (0.24)	0.55	3.29	2.72	0.65	0.91	0.029*	0.207
J	Dividend Pay Out (Times)	0.02 (0.56)	0.213 (0.21)	0.18 (0.07)	0.13 (0.05)	0.02 (0.01)	0.02	0.22	0.09	0.01	0.01	0.948	0.116
Asset Structure Indicators													
K	Fixed to Current Asset (Times)	0.27 (0.40)	0.158 (0.16)	0.22 (0.20)	0.30 (0.44)	0.31 (0.44)	0.27	0.08	0.19	0.10	0.09	0.125	0.55
L	Asset Turnover (Times)	0.97 (0.26)	0.59 (0.60)	0.65 (0.83)	1.67 (1.47)	0.92 (0.94)	0.28	0.33	0.25	0.56	0.36	0.114	0.211
M	Asset Tangibility (Rupees)	3322.39 (992197)	708.11 (295015)	25699.9 (530334)	12227.07 (124248)	2401.87 (83481)	3865.0	211.07	39308	12162	1459.2	0.000*	0.000*
N	Current Ratio (Times)	2.26 (1.71)	2.48 (2.20)	2.92 (3.73)	1.2 (1.48)	4 (1.62)	0.38	0.41	0.86	0.32	2.16	0.126	0.567

Source: CMIE ProwessIQ Database - Figures from the annual report of companies 2013-14, 2014-15, 2015-16. Respective industry averages indicated within brackets.

Table 2: One-way ANOVA showing coherences among the unlevered firms

ANOVA							
			Sum of Squares	df	Mean Square	F	Sig.
Price Earning	Between Groups		1448.662	4	362.166	1.476	.280
	Within Groups		2452.042	10	245.204		
	Total		3900.704	14			
Price to Book	Between Groups		1261.118	4	315.279	7.782	.004
	Within Groups		405.112	10	40.511		
	Total		1666.229	14			
Net Profit Margin	Between Groups		1443.526	4	360.881	5.847	.011
	Within Groups		617.114	10	61.711		
	Total		2060.640	14			
Return on Equity	Between Groups		6608.409	4	1652.102	5.999	.010
	Within Groups		2753.622	10	275.362		
	Total		9362.031	14			
Return on Total Assets	Between Groups		500.475	4	125.119	6.148	.009
	Within Groups		203.509	10	20.351		
	Total		703.984	14			
Return on capital employed	Between Groups		6607.345	4	1651.836	5.996	.010
	Within Groups		2754.638	10	275.464		
	Total		9361.983	14			
Earnings Per Share	Between Groups		6157.333	4	1539.333	.660	.633
	Within Groups		23300.174	10	2330.017		
	Total		29457.508	14			
Operating Profit Margin	Between Groups		.276	4	.069	4.771	.021
	Within Groups		.145	10	.014		
	Total		.421	14			
Absolute Cash Ratio	Between Groups		27.016	4	6.754	1.709	.224
	Within Groups		39.498	10	3.950		
	Total		66.514	14			
Dividend Pay Out Ratio	Between Groups		.092	4	.023	1.935	.181

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
	Within Groups	.119	10	.012		
	Total	.211	14			
Asset Turnover Ratio	Between Groups	2.215	4	.554	4.033	.034
	Within Groups	1.373	10	.137		
	Total	3.588	14			
	Between Groups	1301235952	4	325308988	.951	.474
Tangible Asset	Within Groups	3420448176	10	342044818		
	Total	4721684129	14			
	Between Groups	.049	4	.012	.459	.764
Fixed to Current Asset	Within Groups	.269	10	.027		
	Total	.319	14			
	Between Groups	13.713	4	3.428	2.948	.075
Current Ratio	Within Groups	11.628	10	1.163		
	Total	25.340	14			

Source: CMIE ProwessIQ Database - Figures from the annual report of companies 2013-14, 2014-15, 2015-16.
