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John A. Doukas, *Editor*

Financial Ratios

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Abstract

Financial ratios are an important technique of the financial analysis of a business organization. Effective financial management is the key to running a financially successful business. Ratio analysis is critical for helping you understand financial statements, for identifying trends over time, and for measuring the overall financial health of your business. Lenders and potential investors often rely on ratio analysis for making lending and investing decisions. This book aims to not only develop an understanding of the concepts of financial ratios but also to provide the students a practical insight into the application of financial ratios for decision making and control. It analyzes the financial statements of corporate enterprises in India in diverse sectors with the help of financial ratios in order to facilitate the learning process.

Keywords

efficiency, financial analysis, financial performance, financial ratios, financial statements, liquidity, market performance, profitability, solvency

Contents

Preface

Analyzing financial statement information is one of the most important elements in the process of evaluating business performance. The massive amount of numbers in a company's financial statements can be bewildering and intimidating to the users. "Financial ratios" enable us to work with these numbers in an organized fashion.

It is against this backdrop that this book has been penned down to discuss the concept and application of financial ratios in the financial analysis process. It discusses the types of financial ratios and their utility in practice. It analyzes the financial ratios of the corporate enterprises in India in diverse sectors on a case basis in order to enable the readers to have a better insight into the decision-making process at various levels. In every sector, two to three leading companies have been selected for comparative analysis. The time span taken is from 2009 to 2014 for trend analysis. The financial data have been taken from the Annual Reports of the Companies, and Capita line database. As a part of self-learning, financial statements of the select companies have been provided with each chapter under Annexure.

The objective of this book is to provide the readers an opportunity to learn how to compute the financial ratios, where to apply them, and when to use them as investment evaluators and others.

This book is divided into six parts. *Part I* gives an overview of the conceptual framework of financial ratios. *Part II* discusses the nature and scope of profitability ratios with corporate examples. *Part III* contains a detailed discussion on the efficiency ratios and corporate practices. *Part IV* discusses the liquidity ratios and corporate application of these ratios. *Part V* presents the solvency ratios and corporate examples. *Part VI* discusses the market performance ratios of corporate enterprises. It analyzes the financial ratios of nine sectors in India, namely *cement, automobile, food, pharmaceuticals, hospitality, telecom, steel, fertilizers, and IT*.

It is hoped that it would provide a real applied learning of financial ratios to the readers and provide a new perspective to the academic and business fraternity for application of financial ratios in various business situations.

I am confident that the readers will find this book truly valuable in terms of its quality and presentation. Any constructive comments and suggestions for improving the contents of the book will be highly appreciated.

Sandeep Goel

Acknowledgments

I wish to thank God Almighty for everything in life! The work would be incomplete if I do not acknowledge my parents' contribution. They have been a constant source of inspiration for me and have always stood by me through thick and thin. My wife provided her unstinted support and encouragement in completing the book. My little daughter Maanya is my soul whose smile always keeps me going in life.

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Abbreviations

ACC: Associated cement companies
ACP: Average collection period
ADR: Average daily rate
AHP: Average holding period
APP: Average payment period
ATR: Assets turnover ratio
BSE: Bombay stock exchange
BV: Book value
CA: Current assets
CAGR: Compounded annual growth rate
CapEx: Capital expenditure
CCC: Cash conversion cycle
CE: Capital employed
CFS: Cash flow statement
CIS: Commonwealth of independent states
CL: Current liabilities
COGS: Cost of goods sold
CTR: Creditors turnover ratio
CV: Commercial vehicle
D/E: Debt to equity
D/P: Dividend payout
DPS: Dividend per share
DSCR: Debt-service coverage ratio
DTR: debtors turnover ratio
EBITDA: Earnings before interest, tax, depreciation, and amortization
EBIT: Earnings before interest and tax
EPBX: Electronic private branch exchange
EPS: Earnings per share
FATR: Fixed asset turnover ratio
FDI: Foreign direct investment
FEE: Foreign exchange earnings

FTA: Foreign tourists arrivals
FY: Financial year
FYE: Fiscal year end
GDP: Gross domestic product
GSM: Global system for mobile communications
HRM: Human resource management
ICR: Interest coverage ratio
IDBI: Industrial development bank of India
IHCL: Indian hotels company limited
ILD: International long distance
ITR: Inventory turnover ratio
ITDC: India tourism development corporation
MoFPI: Ministry of food processing industries
MPLS: Multiprotocol label switching
NPV: Net present value
NW: Net worth
P/B: Price to book value
P/E: Price to earnings
PAT: Profit after tax
PBDIT: Profit before depreciation, interest, and tax
PBDT: Profit before depreciation and tax
PBT: Profit before tax
PV: Passenger vehicle
R&D: Research and development
R&S: Reserves & surplus
ROA: Return on assets
ROCE: Return on capital employed
ROE: Return on equity
ROI: Return on investment
RONW: Return on net worth
SMAC: Social media, analytics, and cloud
STR: Stock turnover ratio
SUV: Special utility vehicle
TATR: Total assets turnover ratio
UV: Utility vehicle
VPN: Virtual private network
Yoy: Year on year

PART I

Introduction

CHAPTER 1

Nature of Financial Ratios

The Present Chapter

This chapter discusses the concept of financial ratios with their types, importance, and objectives.

Financial Ratios: Overview

"Ratio analysis" is an important technique of financial statement analysis. Financial ratios are useful indicators of a firm's performance and financial situation. They are important tools that help in judging the profitability, efficiency, liquidity, and solvency of an entity. They help in analyzing the trend of the firm's growth over the years. They are also helpful in forecasting and enabling management to set specific goals that are realizable.

It is important to choose financial ratios that are applicable to the business at hand. There are hundreds of financial ratios available, some of which apply to all businesses and some of which are industry specific.

Different users such as bankers, creditors, investors, and regulators use ratios to analyze the financial situation of the company for their decision-making purpose. Based on the results, bankers and creditors decide to lend, or not, and potential shareholders choose to invest in a company.

Financial ratios are classified according to the objective of analysis. The following types of ratios are commonly used:

- Profitability ratios
- Efficiency ratios
- Liquidity ratios
- Solvency ratios
- Market ratios

Types of Financial Ratios

- **Profitability ratios**

  The ultimate objective of a firm is profitability. The purpose of these ratios is to see if a business is being efficient with its expenditures to create products that can be sold at reasonable prices. Profitability ratios help in determining the overall effectiveness of management regarding returns generated on sales and investments.

  Profitability ratios are used to determine the profit capacity of the firm at different levels. That is why there are several measures to analyze the success of the firm at generating profits.

- **Efficiency ratios**

  Efficiency ratios or asset turnover ratios indicate how efficiently the firm utilizes its assets. They are also referred to as "efficiency ratios," asset utilization ratios, or asset management ratios. Two commonly used asset turnover ratios are *receivables turnover* and *inventory turnover*.

  High rates of turnover for receivables and inventory indicate that a company is maximizing its use of cash by having minimal assets outstanding in these areas. Conversely, a low payable turnover rate is considered better, since it implies that a business is maximizing the loans extended to it by its suppliers via outstanding invoices.

- **Liquidity ratios**

  Liquidity ratios provide information about a firm's ability to meet its short-term financial obligations. They are of immense use to those extending short-term credit to the firm. Two frequently used liquidity ratios are the *current ratio* (or *working capital ratio*) and the *quick ratio*.

  The main purpose of liquidity ratios is to see if a business has enough assets that can be easily converted into cash to meet its current obligations.

- **Solvency ratios**

  Solvency ratios or *financial leverage ratios* indicate the long-term soundness of the firm. The relative debt load of a business is its "leverage." Financial leverage ratios measure the extent to which

the firm is employing long-term debt and what is the degree of financial risk of the firm?

A high degree of solvency indicates that a company's cash flows are consistent enough to make periodic interest and principal payments on its debt. In practice, bankers often include leverage ratios as debt covenants in contract agreements. Bankers want to ensure that the entity can operate during difficult financial periods.

- **Market ratios**

  Market ratios provide an insight into the market trend of the firm and the prospects for future growth. Two commonly used ratios are the *book value per share* and the *price–earnings ratio*.

Significance of Financial Ratios

1. **Financial position**. Financial ratios are useful indicators of a firm's performance and financial situation. They help various users such as investors, management, and bankers in decision making about the firm they are dealing with.
2. **Evaluates efficiency**. These ratios are important for judging the company's efficiency in terms of its operations and management. They determine how well the company has been able to utilize its assets and earn profits.
3. **Meaningful**. Ratios make the information in financial statements more meaningful. They highlight important information in a simple form quickly. A user can judge a company by just looking at few numbers instead of reading the whole financial statements.
4. **Trend analysis**. Ratios through trend analysis reveal whether the financial position of the firm is improving or deteriorating over the years. With the help of such analysis one can ascertain whether the trend will continue or not?
5. **Formulating plans**. The ratios not only help in analyzing the company's past financial performance, but also facilitate formulation of the company's future plans.
6. **Comparison of performance**. It is essential for a company to know how well it is performing over the years and as compared to the other firms in the industry. Besides, it is also important to know how well

its different divisions are performing over the years. Financial ratios facilitate both intrafirm and interfirm comparison.

Limitations of Financial Ratios

1. **Reliability factor**. The ratios are calculated from information provided by the financial statements. So, they are as reliable as the financial statements are.
2. **Incomplete**. Most ratios by themselves are not highly meaningful. They are more of an indicator of the firm's situation, rather than an end.
3. **Support based**. The problem with ratios is that they are useless unless they are compared to something. For example, if you calculate a firm's debt ratio as 5, it does not convey any meaning unless you compare it to other relevant measures. All it means is that a firm's assets are financed by debt. You do not know if that is good or bad unless you have something to compare that 5 to.
4. **No universal definition**. There is no one definitive set of key ratios; there is no uniform definition for all ratios; and there is no standard that should be met for each ratio. Different industries follow different bases to calculate and interpret them. This becomes more alarming in different countries.
5. **Past information**. Ratio analysis explains relationships between past information while users are more concerned about current and future information.

Box 1.1: Bird's eye view of ratios

Profitability ratios—the overall performance of the firm and its return potential
Efficiency ratios—the efficiency of managing assets
Liquidity ratios—a firm's ability to meet cash needs as they arise
Solvency ratios—the extent of a firm's financing with debt relative to equity and its ability to cover fixed charges
Market ratios—a firm's market standing for shareholders

PART II

Profitability Ratios

CHAPTER 2

Concept of Profitability Ratios

The Present Chapter

This chapter gives an overview of the concept of profitability ratios.

Profitability Analysis

For every firm, the key objective is "maximizing profits." Profitability analysis is concerned with the evaluation of the overall efficiency and performance of a firm. Profitability ratios help in the analysis of the operational health of the firm for profit generation. If the firm is able to garner profits as a result of its core operating activities, it is a sign of good operational health of the firm. Such a firm can go a long way by means of its core efficiency.

Profitability ratios can be broadly divided into two subgroups—*margins* and *returns.*

- *Margins*—These ratios represent the firm's ability to translate sales rupees into profits at various stages of measurement.
- *Returns*—They represent the firm's ability to measure the overall efficiency of the firm in generating returns for its shareholders.

Margin Ratios

Gross Profit Ratio

The gross profit ratio or the gross profit margin indicates how efficiently the firm uses its raw materials, labor, and manufacturing-related resources to generate profits. It is a financial metric used to determine a firm's

operational health by revealing the amount of money left over from revenues after accounting for the COGS. Gross profit margin serves as the source for paying the additional expenses and future savings.

The higher the value of the margin, the better it is for the firm.

$$\text{Gross profit ratio} = \frac{\text{Gross profit}}{\text{Sales}}$$

(*Gross profit* = *Sales* – *COGS*)

Without an adequate gross margin, a company will not be able to pay its operating and other expenses and build financial strength for the future. In general, a company's gross profit margin should be stable. It should not fluctuate much from time to time; otherwise it will affect the COGS or pricing policies of the company.

For example, suppose that ABC Ltd. earned $20 million in revenue from producing sugar and incurred $10 million in COGS-related expense. ABC's gross profit margin would be 50 percent. It means that for every dollar that ABC earns on sugar, it really has only $0.50 at the end of the day.

This metric can be used for interfirm comparison. More efficient companies will generally see higher profit margins.

Operating Profit Ratio

Operating profit margin measures the profitability of a concern by taking into account the amount of profit that a firm is able to generate after paying its other line of expenses, including office and selling expenses. It is a better indicator of the profitability of the company as it is concerned with only the profits from core operations of the company and excludes the noncore items. Thus, it reflects the long-term prosperity of the company.

$$\text{Operating profit ratio} = \frac{\text{EBIT / Operating profit}}{\text{Sales}}$$

Operating margin gives analysts a clue of how much a company makes (before interest and taxes) on each dollar of sales. When looking

at the operating margin to determine the quality of a company, it is best to observe the change in the operating margin over time and to compare the company's yearly or quarterly figures to those of its competitors. If a company's margin is increasing, it is earning more per dollar of sales.

The higher the margin, the better it is. *For example*, if a company has an operating margin of 12 percent, this means that it makes $0.12 (before interest and taxes) for every dollar of sales. Often, nonrecurring cash flows, such as cash paid out in a lawsuit settlement, are excluded from the operating margin calculation because they do not represent a company's true operating performance.

Net Profit Ratio

Net profit margin provides the ultimate profit picture of the company. As net profit is the final profit, this ratio tells how much of each rupee earned by the company is finally translated into profits. A low profit margin indicates a low margin of safety and higher risk as a decline in sales will erase profits and result in net loss.

When used in conjunction with the assets turnover ratio, it helps in ascertaining how efficiently the assets have been used during the period.

$$\text{Net profit ratio} = \frac{\text{PAT}}{\text{Sales}}$$

The higher the margin, the more effective the company is in converting revenue into actual profit. Net profit margin is mostly used to compare a company's results over time. For interfirm comparison, net profit margin might have little meaning. *For example*, if a company recently took a long-term loan to increase its production capacity, the net profit margin will significantly be reduced. That does not mean, necessarily, that the company is less efficient than the competitors.

In short, it indicates the following:

1. Each rupee earned by the company is translated into profits.
2. The company has control over its cost.

Operating Ratio

Operating ratio analyzes the profitability of the firm with regard to coverage of expenses. "Unlike the above profitability ratios, this ratio should be as low as possible." The lower the ratio, the greater is the organization's ability to generate profits if revenues decrease. Since operating expenses can vary considerably between months, in case of seasonal sales, it is better to compare a month's results to those of the same month in the preceding year to have a more accurate analysis.

$$\text{Operating ratio} = \frac{\text{Total operating expenses}}{\text{Sales}}$$

Cash Flow Margin

The operating cash flow margin is preferred over net income margin, as it includes transactions that involve actual transfers of money (depreciation is a common example of a noncash expense that is included in net income calculations but not in operating cash flow).

$$\text{Cash flow margin} = \frac{\text{Cash flows from operating activities}}{\text{Sales}}$$

Cash flow margin indicates the working capital efficiency of a concern. By analyzing it, lenders can find out the time taken by the firm to pay bills (thus preserving its cash), the time it takes to collect from customers (thus accelerating the receipt of cash), and time taken to put off buying inventory (again thus preserving cash).

It helps companies to expand, develop new products, buy back stock, pay dividends, or reduce debt. That is why some people value cash flow more than just any other financial measure. Without positive cash flow, a company may have to borrow, raise additional equity, or simply not stay in business. It is important to note that having negative operating cash flow margins for a particular period is not always a bad thing. If a company is building a second manufacturing plant, this could pay off ultimately when the plant becomes functional and generates cash.

Return Ratios

Return on Capital Employed

ROCE is a profitability ratio that measures how efficiently a company can generate profits from its funds employed. It indicates to the investors how many rupees in profit each rupee of capital employed generates.

ROCE is a long-term profitability ratio because it shows how effectively assets are performing while taking into consideration the long-term financing. Therefore, it is an important ratio for evaluating the efficiency of the management.

This ratio is based on two important parameters: *operating profit* and *capital employed*. Operating profit or EBIT is reported in the income statement.

$$\text{ROCE} = \frac{\text{EBIT}}{\text{Capital employed}}$$

(*Capital employed = Net worth + Preference share capital + Long-term loans*)

Return on Equity

This ratio is an important measure of profitability for the shareholders. ROE, also called as RONW, calculates the amount of net income returned as a percentage of shareholders' equity. It measures how much profit a company generates with the money shareholders have invested.

Higher ROE is always favorable as it indicates the efficiency of a company in converting the shareholders' capital to profits.

$$\text{ROE} = \frac{\text{PAT} - \text{Preference dividend} - \text{Dividend distribution tax}}{\text{Net worth}}$$

(*Net worth = Equity share capital + Reserves*)

RONW is important in measuring whether the business is making the best use of the shareholders' resources. The percentage change in the margin over the years is compared to find out whether the company is moving forward, remaining constant, or starting to lose ground in terms

of its revenue generation. Accordingly, the management can identify unfavorable factors early on, isolate them, and take steps to correct the issue before lasting damage is done to the operations.

Earnings per Share

EPS is defined as the portion of company's profit allocated to each outstanding share of a common stock.

The higher the EPS of a company, the better the profitability one can expect from the firm.

$$\text{EPS} = \frac{\text{PAT} - \text{Preference dividend} - \text{Dividend distribution tax}}{\text{Number of equity shares}}$$

EPS is generally considered to be the single most important variable in determining a share's price.

Preference shares have precedence over common shares. As in ROE, dividends declared on preferred shares are subtracted here as well before calculating the EPS.

Example: A company earned net profit of Rs. 100 million for 2014. It has 5 million outstanding equity shares. No fresh issue of equity shares was made during the year, implying that the weighted average number of equity shares outstanding during the period is 5 million.

So, EPS = 100/5
= Rs. 20

Box 2.1: Bird's eye view of profitability ratios

All profitability ratios, except EPS, are expressed in percentage. EPS is expressed in rupees per share.

CHAPTER 3

Corporate Examples of Profitability Ratios

The Present Chapter

The profitability analysis of four sectors in India has been approached here, namely *cement, auto, foods,* and *pharma.* In each sector, profitability ratios of two or three comparative companies have been studied to evaluate the profitability.

Indian Cement Sector

Overview

India is the second largest consumer as well as producer of cement in the world currently with nearly 330 million tons of cement production capacity, as evident in Figure 3.1. Of the total capacity of cement production, majority (around 98 percent) rests with the private sector

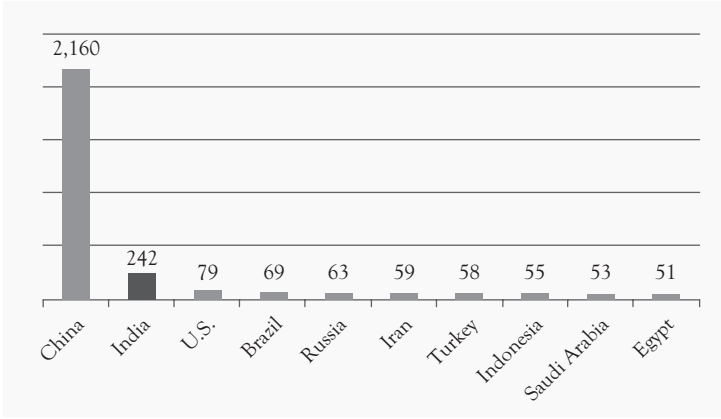


Figure 3.1 Top cement producers of 2012 (million tons)

Source: International Cement Review, Aranca Research.

and thus the sector is clearly dominated by public players. When it comes to production, the sector has an oligopolistic arrangement wherein 97 percent of the total installed capacity is accounted for by 185 cement plants, whereas the rest of the capacity lies with 365 small plants.

Considering the large cement plants in India, majority of the capacity comes from the states of Andhra Pradesh, Rajasthan, and Tamil Nadu. According to the Planning Commission, the production capacity is expected to grow at a CAGR of 6.8 percent during 2011 through 2017. The growth of the cement sector is interdependent on a number of other factors. In fact, the growth of the cement sector is directly pegged to the GDP rate and grows approximately at 1.1 times the growth rate of GDP.

If we consider the key components of cement sales, then they can be divided into the following subheads: housing, infrastructure, commercial, and industrial. The major contribution is by the housing sector, accounting for around 70 percent of the entire cement sales. The key cost components of the cement production are power, freight, and raw material.

The geographical split of cement production capacity in India is shown in Figure 3.2. If we consider the state-wise split of production plants for cement as shown in Figure 3.2, we see a clear concentration

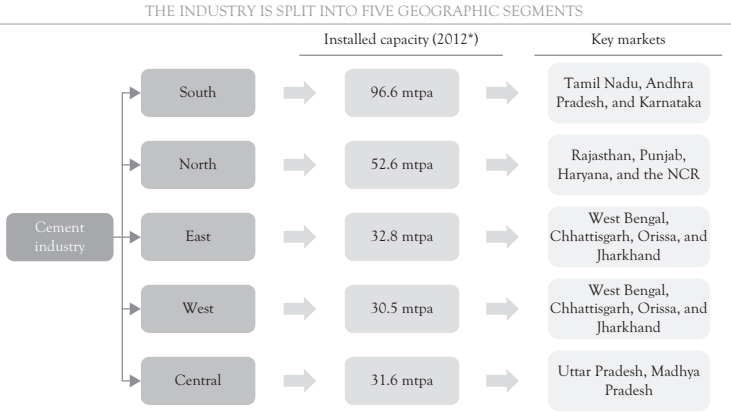


Figure 3.2 Geographical segmentation of Indian cement industry

Notes: mtpa, million tons per annum. 2012*: data of large cement plants.
Source: Department of Industrial Policy and Promotion, Aranca Research.

of plants in southern India leading to excess production. The northern parts of India also face deficit of adequate cement production capacity with respect to the demand. The lack of cement manufacturing firms in north-east India presents an opportunity for growth for the key players in the industry.

Current Scenario

If we consider the current scenario in the cement sector, we see a cyclical slowdown in demand majorly caused due to industrial slowdown. The interdependency of the cement sector on other sectors such as housing, infrastructure, and manufacturing has been causing a ubiquitous decrease of profitability and net sales for majority of the key players in the industry. There is a high underutilization of capacity. The current installed capacity is at 360 million tons, whereas the current demand is at 260 million tons, leading to an excess supply of around 100 million tons. Prices, as a result of this excess supply, are at a five-year all-time low. The industry is further ailing from a business-unfriendly set of regulations from the government, which hinders rapid growth of the sector. In today's scenario, the time to set up a green field project may take anywhere from seven to ten years depending on the time taken for land acquisition, which usually is around five to seven years and is therefore a huge deterrent for inviting investments. Excess capacity addition instead of efficient utilization of the installed capacity further widens this demand–supply gap thereby driving down prices further. The recent hike in the freight charges introduced by the newly elected Modi government has further aggravated the profitability situation of the cement sector. Other factors such as rupee depreciation leading to higher coal prices and regular hike in diesel prices also affect the costs associated with cement production.

UltraTech Cement

Background. UltraTech cement is a part of the Aditya Birla Group, which is in the league of Fortune 500 companies. It is the largest cement

company in India and the eighth largest in the world. It is the largest Indian exporter of cement clinker. It is involved in the manufacturing and marketing of portland cement, white cement, ready-mix concrete, and autoclaved aerated concrete blocks. The production facilities of the company are distributed across Africa, Middle East, and Europe apart from India. UltraTech Cement, Birla White, UltraTech Ready mix concrete, and UltraTech Xtralite are some of the brands offered by UltraTech cement. The company is headquartered in Mumbai, Maharashtra.

Analysis. Table 3.1 presents the profitability ratios of UltraTech for (2011–2013)

Table 3.1 Profitability ratios of UltraTech (2011–2013)

Year	Gross profit (Rs. cr.)	Gross sales (Rs. cr.)	Gross profit ratio (%)
2011	4,295.43	18,309.85	23.46
2012	4,770.77	20,179.96	23.64
2013	3,827.77	20,279.80	18.87

Year	PAT (Rs. cr.)	Gross sales (Rs. cr.)	Net profit ratio (%)
2011	2,266.49	18,309.85	12.38
2012	2,485.38	20,179.96	12.32
2013	1,965.85	20,279.80	9.69

Year	Total operating expenses (Rs. cr.)	Gross sales (Rs. cr.)	Operating ratio (%)
2011	14,141.17	18,309.85	68.72
2012	15,622.67	20,179.96	68.33
2013	16,354.92	20,279.80	71.09

Year	EBIT (Rs. cr.)	Capital employed (Rs. cr.)	ROCE (%)
2011	2,700	11,968.34	22.56
2012	3,800	17,848.29	21.29
2013	3,300	23,571.12	14.32

Year	PAT-preference dividend—dividend distribution tax (Rs. cr.)	Number of equity shares	EPS (Rs. per share)
2011	1,405	27,424,000,000	51.24
2012	2,444	27,424,000,000	89.26
2013	2,630	27,424,000,000	96.85

- PAT decreased by 7 percent yoy to Rs. 6.3 billion led by higher taxes.
- EBITDA declined by 17 percent yoy due to increase in petcoke prices, diesel price hikes, and consequent rise in freight rates.
- Interest cost grew at 51 percent rate yoy.
- There is high exposure to southern India, which has a glut of installed capacity.

Ambuja Cements

Background. Ambuja Cements Limited, founded in 1983, is one of the leading manufacturers of cement in India. The management control of the firm was acquired by Swiss conglomerate Holcim in 2006. Initially known as the Gujarat Ambuja Cements Ltd., it was founded by Narotam Sekhsaria in partnership with Suresh Neotia. The main operations of the company are concerned with the marketing and manufacturing of cement and clinker for both domestic and export markets. The company is headquartered in Mumbai, Maharashtra.

Analysis. The following Table 3.2 presents the profitability ratios of Ambuja for 2011–2013:

- Domestic cement sales volume continued with sluggish demand by recording a decrease of 2 percent at 20.94 million tons from 21.31 million.
- Net sales at Rs. 9,087 crores were 6 percent lower than that of previous year's Rs. 9,675 crores.

Table 3.2 Profitability ratios of Ambuja (2011–2013)

Year	Gross profit (Rs. cr.)	Gross sales (Rs. cr.)	Gross profit ratio (%)
2011	2,148.02	8,554.26	25.11
2012	2,467.05	9,730.30	25.35
2013	2,004.19	9,160.35	21.87

Year	PAT (Rs. cr.)	Gross sales (Rs. cr.)	Net profit ratio (%)
2011	1,210.94	8,554.26	14.85
2012	1,426.73	9,730.30	14.65
2013	1,198.24	9,160.35	13.07

Year	Total operating expenses (Rs. cr.)	Goss sales (Rs. cr.)	Operating ratio (%)
2011	6,544.48	8,554.26	67.97
2012	7,737.00	9,730.30	70.37
2013	7,391.19	9,160.35	71.23

Year	EBIT (Rs. cr.)	Capital employed (Rs. cr.)	ROCE (%)
2011	1,755.00	7,765.48	22.60
2012	1,977.00	8,763.29	25.66
2013	1,579.00	9,217.75	17.13

Year	PAT-preference dividend—dividend distribution tax (Rs. cr.)	Number of equity shares	EPS (Rs. per share)
2011	1,512.0	209,170,000,000	7.50
2012	1,641.2	209,170,000,000	7.83
2013	1,612.8	209,170,000,000	7.76

- Average sales realization decreased by around 4 percent at Rs. 4,208 per ton against approximately Rs. 4,400 per ton in 2012.
- Total operating expenses for the year 2013 increased by 2 percent over that of year 2012.

- The company achieved an absolute EBITDA of Rs. 1,651 crores in year 2013. This is lower by 33 percent over the corresponding Rs. 2,473 crores in the year 2012.
- Good exposure to north and east.

ACC Limited

Background. ACC Limited is one of the most admired companies in the Indian cement sector. It came into existence when 10 different cement companies under various ownerships such as Tatas, Khataus, and F. E. Dinshaw merged together in 1936 to give rise to the ACC. Mr. Nowroji B. Saklatvala became the first chairman of the ACC group. The control of management of the company was taken over by Swiss giant Holcim in 2004, post which the Associated Cement Companies Limited came to be known as ACC Limited. It is one of the oldest cement firms in India. Its registered office called the Cement House is located on the Mahirshi Karve Road, Mumbai. It has around 10,000 employees and has a wide network of distribution and marketing offices. Apart from being a pioneer in cement and concrete technology, ACC Limited has won accolades for its environment-friendly initiatives at its production facilities and is one of the very few companies in the sector to undertake commitment to environmental protection as a corporate objective.

Analysis. Table 3.3 presents the profitability ratios of ACC for 2011–2013:

- Sales volume dipped by 0.7 percent to 23.93 metric tons.
- Net sales dipped by 2 percent to Rs. 10,908 crores.
- Net cash generated from operations reduced by around 33 percent.
- Capacity utilization rate of 79 percent is a good sign as it is far above the industry average of 69 percent.

Outlook of the Cement Sector

- The demand for cement is expected to rise further, given that many infrastructure projects are set to take off.

Table 3.3 Profitability ratios of ACC (2011–2013)

Year	Gross profit (Rs. cr.)	Gross sales (Rs. cr.)	Gross profit ratio (%)
2011	2,015.72	9,660.29	20.87
2012	2,010.37	11,357.96	17.70
2013	1,800.91	11,168.94	16.12

Year	PAT (Rs. cr.)	Gross sales (Rs. cr.)	Net profit ratio (%)
2011	1,299.51	9,660.29	13.45
2012	1,231.75	11,357.96	10.84
2013	1,053.89	11,168.94	9.44

Year	Total operating expenses (Rs. cr.)	Gross sales (Rs. cr.)	Operating ratio (%)
2011	7,833.96	9,660.29	73.21
2012	9,477.74	11,357.96	74.98
2013	9,533.62	11,168.94	76.32

Year	EBIT (Rs. cr.)	Capital employed (Rs. cr.)	ROCE (%)
2011	1,636	7,588	21.56
2012	1,564	7,004	22.33
2013	1,276	8,169.04	15.62

Year	PAT-preference dividend—dividend distribution tax (Rs. cr.)	Number of equity shares (cr.)	EPS (Rs. per share)
2011	1,320	187.95	70.59
2012	1,061.9	187.95	56.52
2013	1,095.7	187.95	58.36

- The business-friendly orientation of the newly elected Modi government coupled with the expectation of revival of the economic growth story in the market bears healthy signs for the cement sector in future.

Recommendations

- In the case of ACC, the operating ratio is very high compared to the other two companies. This shows that the company has highest operating expenses, which is an indication of cost inefficiency.
- UltraTech Cements has high exposure to the south where there is a glut of capacity and hence prices are very low. In the long run, the company can diversify to North and East India.
- Also the ROCE of UltraTech is low, indicating that the company is not efficiently using its capital.

Annexure I

Balance Sheet of UltraTech Limited

Year (Rs. cr.)	Dec 2013	Dec 2012	Dec 2011
Sources of funds			
Share capital	274.18	274.07	274.04
Reserves total	14,960.64	12,585.75	10,392.00
Equity share warrants	0	0	0
Equity application money	0	0	0
Total shareholders' funds	**15,234.82**	**12,859.82**	**10,666.04**
Secured loans	2,655.98	2,160.34	2,789.76
Unsecured loans	2,752.56	1,992.53	1,354.86
Total debt	**5,408.54**	**4,152.87**	**4,144.62**
Other liabilities	135.83	122.97	114.6
Total liabilities	**20,779.19**	**17,135.66**	**14,925.26**
Application of funds			
Gross block	21,382.22	19,013.84	17,942.41
Less: accumulated depreciation	8,259.86	7,379.66	6,542.02
Less: impairment of assets	0	0	0
Net block	13,122.36	11,634.18	11,400.39
Lease adjustment	0	0	0
Capital work in progress	3,505.37	1,896.63	681.69
Investments	5,108.72	3,788.77	3,730.32

(*Continued*)

(Continued)

Year (Rs. cr.)	Dec 2013	Dec 2012	Dec 2011
Current assets, loans, and advances			
Inventories	2,350.47	2,035.94	1,957.74
Sundry debtors	1,017.24	765.96	602.29
Cash and bank	142.66	189.58	144.79
Loans and advances	1,178.88	1,171.81	915.56
Total current assets	4,689.25	4,163.29	3,620.38
Less: current liabilities and provisions			
Current liabilities	3,788.58	3,371.59	2,878.14
Provisions	935.18	700.17	461.08
Total current liabilities	4,723.76	4,071.76	3,339.22
Net current assets	−34.51	91.53	281.16
Miscellaneous expenses not written off	0	0	0
Deferred tax assets	167.67	145.23	161.61
Deferred tax liability	2,073.59	1,883.00	1,891.66
Net deferred tax	−1,905.92	−1,737.77	−1,730.05
Other assets	983.17	1,462.32	561.75
Total assets	**20,779.19**	**17,135.66**	**14,925.26**
Contingent liabilities	964.87	3,059.41	2,137.16

Balance Sheet of Ambuja Cements Limited

Year (Rs. cr.)	Dec 2013	Dec 2012	Dec 2011
Sources of funds			
Share capital	309.17	308.44	306.87
Reserves total	9,176.37	8,496.62	7,762.56
Equity share warrants	0	0	0
Equity application money	0	0	0.01
Total shareholders' funds	**9,485.54**	**8,805.06**	**8,069.44**
Secured loans	5.86	0	0
Unsecured loans	34.62	42.81	49.36
Total debt	**40.48**	**42.81**	**49.36**
Other liabilities	42.38	25.8	21.73
Total liabilities	**9,568.40**	**8,873.67**	**8,140.53**

Application of funds			
Gross block	10,826.19	10,183.63	9,702.29
Less: accumulated depreciation	4,763.66	4,321.26	3,515.83
Less: impairment of assets	0	0	0
Net block	6,062.53	5,862.37	6,186.46
Lease adjustment	0	0	0
Capital work in progress	694.88	520.12	486.82
Investments	1,788.45	1,655.84	864.31
Current assets, loans, and advances			
Inventories	933.94	983.93	924.97
Sundry debtors	231.51	213.37	240.85
Cash and bank	2,341.09	2,253.72	2,069.08
Loans and advances	346.56	281.55	260.44
Total current assets	3,853.10	3,732.57	3,495.34
Less: current liabilities and provisions			
Current liabilities	1,755.58	1,582.23	1,584.37
Provisions	1,076.29	1,308.93	1,173.34
Total current liabilities	2,831.87	2,891.16	2,757.71
Net current assets	1,021.23	841.41	737.63
Miscellaneous expenses not written off	0	0	0
Deferred tax assets	130.2	106.78	82.76
Deferred tax liability	694.52	655.03	726.36
Net deferred tax	−564.32	−548.25	−643.6
Other assets	565.63	542.18	508.91
Total assets	**9,568.40**	**8,873.67**	**8,140.53**
Contingent liabilities	1,447.58	1,362.30	246.84

Balance Sheet of ACC Limited

Year (Rs. cr.)	Dec 2013	Dec 2012	Dec 2011
Sources of funds			
Share capital	187.95	187.95	187.95
Reserves total	7,636.89	7,194.85	7,004.32
Equity share warrants	0	0	0
Equity application money	0	0	0
Total shareholders' funds	**7,824.84**	**7,382.80**	**7,192.27**

(*Continued*)

(Continued)

Year (Rs. cr.)	Dec 2013	Dec 2012	Dec 2011
Secured loans	32	157	500
Unsecured loans	3.03	6.06	10.73
Total debt	**35.03**	**163.06**	**510.73**
Other liabilities	495.84	473.45	495.32
Total liabilities	**8,355.71**	**8,019.31**	**8,198.32**
Application of funds			
Gross block	10,399.55	10,218.78	9,645.37
Less: accumulated depreciation	4,895.59	4,354.91	3,437.84
Less: impairment of assets	0	0	0
Net block	5,503.96	5,863.87	6,207.53
Lease adjustment	0	0	0
Capital work in progress	819.61	311.3	365.63
Investments	2,194.02	2,553.55	1,624.95
Current assets, loans, and advances			
Inventories	1,121.47	1,133.55	1,099.54
Sundry debtors	397.22	303.45	187.74
Cash and bank	503.38	678.38	1,652.56
Loans and advances	378.86	352.09	347.32
Total current assets	2,400.93	2,467.47	3,287.16
Less: current liabilities and provisions			
Current liabilities	2,149.86	2,098.27	2,222.67
Provisions	1,080.75	1,291.73	1,049.94
Total current liabilities	3,230.61	3,390.00	3,272.61
Net current assets	−829.68	−922.53	14.55
Miscellaneous expenses not written off	0	0	0
Deferred tax assets	238.28	207.96	174.51
Deferred tax liability	745.55	724.88	692.87
Net deferred tax	−507.27	−516.92	−518.36
Other assets	1,175.07	730.04	504.02
Total assets	**8,355.71**	**8,019.31**	**8,198.32**
Contingent liabilities	1,764.15	533.63	448.77

Indian Automobile Sector

Overview

The Indian automobile sector is the seventh largest and the second fastest growing industry in the world, with an average annual production of 17.5 million vehicles, of which 2.3 million are exported. It plays a significant role in driving economic growth and accounts for 22 percent of the country's manufacturing GDP. This is expected to increase to around 10 percent by 2016. The automobile sector consists of four different sectors, which are as follows:

- Two-wheelers: mopeds, scooters, motorcycles, and electric two-wheelers
- PVs: passenger cars, utility vehicles, and multipurpose vehicles
- CVs Vehicles: light and medium–heavy vehicles
- Three-wheelers: passenger carriers and goods carriers.

The growth of Indian middle class with increasing purchasing power has attracted the major global auto manufacturers to India. The increasing pull of Indian markets on one hand and a near stagnation of the auto sector in the United States, European Union (EU), and Japan on the other have worked in favor of the Indian auto industry. For the past two years, however, the industry has not been performing well. High inflation, soaring interest rates, low consumer sentiment, and rising fuel prices along with economic slowdown are the major reasons for the downturn of the industry. Except for the two-wheelers, all other segments in the industry have been weakening. Automakers and dealers have been offering high discounts in order to push sales but the demand is failing to pick up. Despite this bleak scenario, the luxury car market has observed a robust double-digit growth during the year 2013 to 2014, as a result of rewarding new launches at compelling lower price points.

Tata Motors

Tata Motors Limited is an Indian multinational automotive manufacturing company and a subsidiary of the Tata Group. It has a presence in

both CVs as well as PVs and includes products such as passenger cars, trucks, vans, coaches, buses, and construction equipment and military vehicles. It is the leader in CVs. Tata Motors is the world's 17th largest motor vehicle–manufacturing company, 5th largest truck manufacturer, and 4th largest bus manufacturer. In the PVs segment, it has the fourth largest market share in India. It has operations in the United Kingdom, South Korea, Thailand, South Africa, and Spain.

Product Portfolio

Segment	Product
Passenger vehicles	Nano, Indica, Indigo, Vista, Manza, Safari Storme, Sumo
Medium and heavy commercial	Prima, Construck, Starbus, Divo, City ride, Novus
Intermediate commercial	Winger, Winger Platinum
Small commercial	Tata Ace, Super Ace, RX Pickup, Xenon CNG, Magic
Premium and luxury	Discovery, Defender, Evoque, Range Rover, XF, XJ

Its ace in the pocket has been the Jaguar Land Rover, which has become the primary driver of profit. Jaguar Land Rover business forms more than 95 percent of the company's valuation by many estimates.

Mahindra & Mahindra Limited

Mahindra & Mahindra Limited (M&M) is an Indian multinational automobile manufacturing company and a part of Mahindra Group, an Indian conglomerate. It is one of the largest vehicle manufacturers by production in India and the largest seller of tractors across the world. It is the only company in the industry having its presence in all the five sub-segments, that is, two-wheelers, three-wheelers, PVs, CVs, and tractors. It is a market leader in utility vehicles with a market share of 47.7 percent and tractors with a share of 40.2 percent. It strengthened its global presence over the past two years, owing to the company's growing export. The company's exports have grown in the Asia-Pacific region, Africa, South and Latin America, and the United States.

Product Portfolio

Segment	Product
Passenger vehicles	Verito, Bolero, Scorpio, XUV500, Quanto, Xylo
Tractors	Bhoomiputra, Sarpanch, Arjun, Yuvraj
Commercial vehicles	Gio, Genio, Bolero Maxi Truck
Two-wheelers	Rodeo, Duro, Flyte, Centuro
Three-wheelers	Alfa, Alfa Plus

Profitability Ratios

The profitability ratios of Tata Motors and Mahindra & Mahindra is discussed as follows (Figures 3.3 to 3.8).

Tata Motors:

- Indian automobile industry became sluggish, which affected Tata Motors the most. Sales revenue fell by more than 40 percent during this period, whereas cost of goods sold (COGS) dropped by only around 33 percent.
- As a result, gross profit margin fell drastically.

M&M:

- Performed strongly in heavy vehicles and two-wheelers. Joint Ventures (Yancheng Tractor and Navistar) also helped M&M boost its sales revenue.

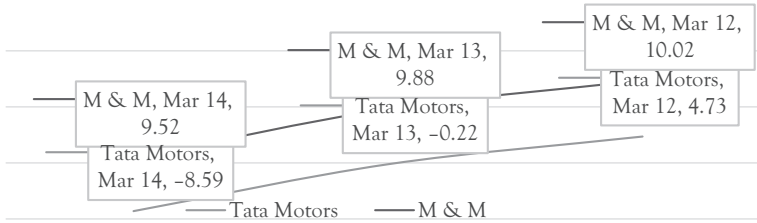


Figure 3.3 Gross profit margin of Tata Motors and Mahindra & Mahindra

- Increase in COGS was proportional to boost in sales revenue.
- Gross profit is more or less constant.

Tata Motors:

- Operating profit margin has been decreasing.
- Operating profit dipped from a profit of Rs. 4,200 cr. to a loss of Rs. 900 cr. due to sluggish Indian automobile market.
- Due to the same reason, net sales also dropped.

M&M:

- Operating profit margin has been consistent over time.
- Showed growing trends of operating profit.

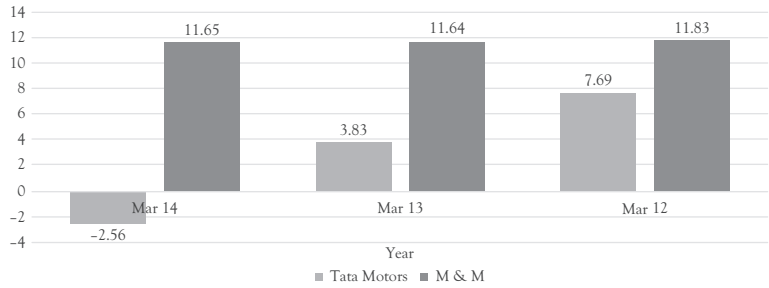


Figure 3.4 Operating profit margin of Tata Motors and Mahindra & Mahindra

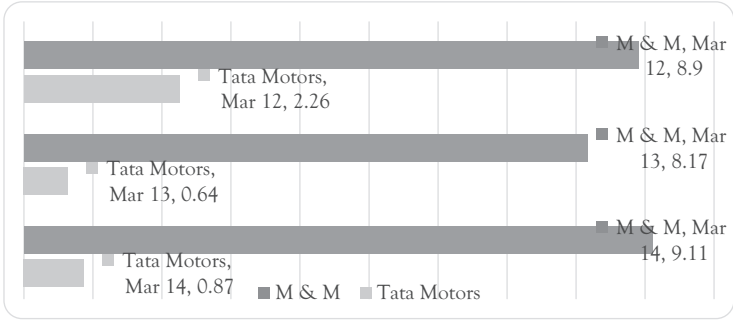


Figure 3.5 Net profit margin of Tata Motors and Mahindra & Mahindra

- Net sales increased by more than 60 percent due to strong performance in the tractor, utility vehicle, and two-wheeler market.

Tata Motors:

- Operating expenses and interest paid have grown over the period, whereas sales turnover has reduced.
- COGS has reduced but not by the same margin as sales turnover.
- As a result, net profit margin has shown a decline for Tata Motors.

M&M:

- Operating expenses, COGS, and interest have all increased.
- This increase has been offset by the drastic increase in the sales turnover across all categories: PVs, CVs, tractors, two-wheelers, and four-wheelers.
- Net profit margin is more or less consistent.

Tata Motors:

- Net sales have been continuously decreasing for past three years but cash flows from operating activities have shown a fluctuating trend, that is, reduced in 2013 and then increased in 2014.

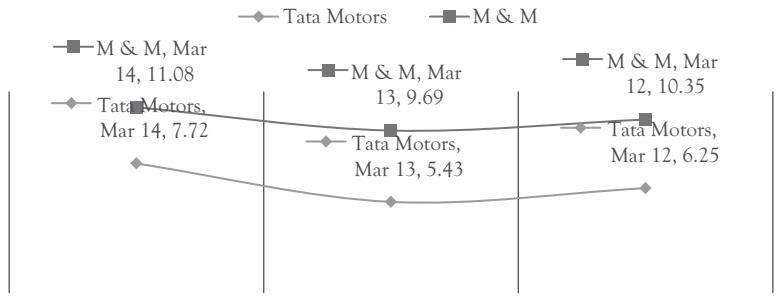


Figure 3.6 Cash flow margin of Tata Motors and Mahindra & Mahindra

- Sales in 2014 decreased due to less exports (2 percent lower from 2012 to 2013).
- The domestic passenger car industry was affected mainly by weak sentiments, high cost of ownership, high interest rates, fuel prices, and so on.

M&M:

- Net sales have been continuously increasing.
- Cash profit margin has been fairly constant.
- Its single "go-to-market" strategy and vendor rationalization helped to synergize its operational efficiencies.
- Total assets of Tata Motors are nearly double than those of M&M, whereas the EBIT value for M&M is much higher.
- Tata Motors was a leader in PV category but, off late, it is spending extensively to revamp its PV portfolio, which will reap benefits in the future.
- M&M is quite efficient in utilizing its resources.

Tata Motors:

- Net profit has decreased over the period.
- Share capital has remained more or less constant.
- ROE is decreasing, and it is well below the levels of M&M.

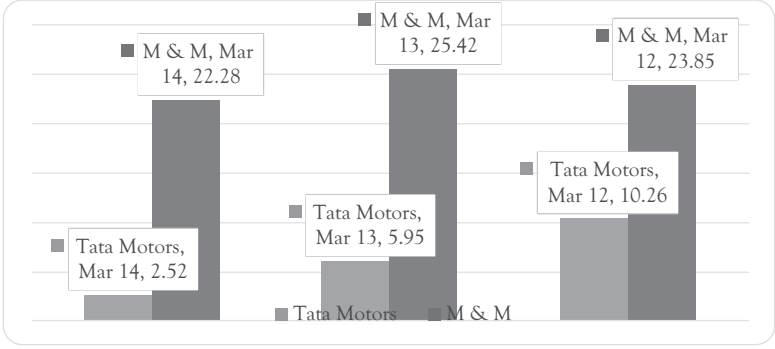


Figure 3.7 Return on capital employed of Tata Motors and Mahindra & Mahindra

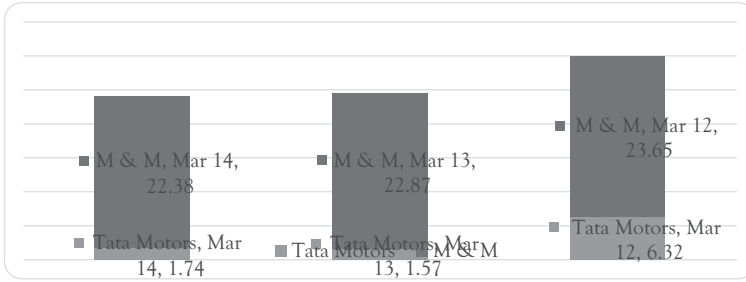


Figure 3.8 Return on net worth of Tata Motors and Mahindra & Mahindra

M&M:

- Net profits have increased considerably during the period.
- Share capital is constant (but almost half of Tata Motors).
- ROE is consistent, and more than that of Tata Motors, showing better profitability on the amount of money invested.

Recommendations

- Tata Motors has huge unsecured loans, leading to high interest payments. This reduces its net profit considerably. Tata Motors should find ways to reduce these loans.
- Cost of production for Tata Motors is high, whereas total revenue is on the lower side. Tata Motors needs to cut down its costs and make its operations more efficient.
- Tata Motors is sitting on huge cash reserves. This can be used to optimize the processes and make the business more efficient.

Annexure II

Financial Statements of Tata Motors

Balance Sheet

Standalone Balance Sheet	---------- in Rs. Cr. ----------		
	Mar '14	**Mar '13**	**Mar '12**
	12 mths	12 mths	12 mths
Sources Of Funds			
Total Share Capital	643.78	638.07	634.75
Equity Share Capital	643.78	638.07	634.75
Share Application Money	0	0	0
Preference Share Capital	0	0	0
Reserves	18,532.87	18,496.77	18,991.26
Revaluation Reserves	0	0	0
Networth	**19,176.65**	**19,134.84**	**19,626.01**
Secured Loans	4,450.01	5,877.72	6,915.77
Unsecured Loans	10,065.52	8,390.97	4,095.86
Total Debt	**14,515.53**	**14,268.69**	**11,011.63**
Total Liabilities	**33,692.18**	**33,403.53**	**30,637.64**
	Mar '14	**Mar '13**	**Mar '12**
	12 mths	12 mths	12 mths
Application Of Funds			
Gross Block	26,130.82	25,190.73	23,676.46
Less: Accum. Depreciation	10,890.25	9,734.99	8,656.94
Net Block	**15,240.57**	**15,455.74**	**15,019.52**
Capital Work in Progress	6,355.07	4,752.80	4,036.67
Investments	**18,458.42**	**19,934.39**	**20,493.55**
Inventories	3,862.53	4,455.03	4,588.23
Sundry Debtors	1,216.70	1,818.04	2,708.32
Cash and Bank Balance	226.15	462.86	1,840.96
Total Current Assets	5,305.38	6,735.93	9,137.51
Loans and Advances	4,374.98	5,305.91	5,832.03
Fixed Deposits	0	0	0
Total CA, Loans & Advances	9,680.36	12,041.84	14,969.54
Deffered Credit	0	0	0
Current Liabilities	13,334.13	16,580.47	20,280.82
Provisions	2,708.11	2,200.77	3,600.82
Total CL & Provisions	16,042.24	18,781.24	23,881.64
Net Current Assets	**-6,361.88**	**-6,739.40**	**-8,912.10**
Miscellaneous Expenses	0	0	0
Total Assets	**33,692.18**	**33,403.53**	**30,637.64**
Contingent Liabilities	12,419.30	14,981.11	15,413.62
Book Value (Rs)	59.58	59.98	61.84

Profit and Loss

Standalone Profit & Loss account	**---------- in Rs. Cr. ----------**		
	Mar '14	**Mar '13**	**Mar '12**
	12 mths	12 mths	12 mths
Income			
Sales Turnover	34,319.28	44,765.72	54,306.56
Excise Duty	0	0	0
Net Sales	34,319.28	44,765.72	54,306.56
Other Income	3,262.00	1,662.33	-11.16
Stock Adjustments	-303.35	143.6	623.84
Total Income	**37,277.93**	**46,571.65**	**54,919.24**
Expenditure			
Raw Materials	26,040.59	33,764.40	41,081.79
Power & Fuel Cost	392.09	484.66	550.89
Employee Cost	2,877.69	2,837.00	2,691.45
Other Manufacturing Expenses	428.74	425.76	0
Selling and Admin Expenses	0	0	0
Miscellaneous Expenses	5,156.80	5,679.52	6,428.72
Preoperative Exp Capitalised	0	0	0
Total Expenses	34,895.91	43,191.34	50,752.85
	Mar '14	**Mar '13**	**Mar '12**
	12 mths	12 mths	12 mths
Operating Profit	**-879.98**	**1,717.98**	**4,177.55**
PBDIT	2,382.02	3,380.31	4,166.39
Interest	1,337.52	1,387.76	1,218.62
PBDT	1,044.50	1,992.55	2,947.77
Depreciation	2,070.30	1,817.62	1,606.74
Other Written Off	0	0	0
Profit Before Tax	-1,025.80	174.93	1,341.03
Extra-ordinary items	0	0	0
PBT (Post Extra-ord Items)	-1,025.80	174.93	1,341.03
Tax	-1,360.32	-126.88	98.8
Reported Net Profit	**334.52**	**301.81**	**1,242.23**
Total Value Addition	8,855.32	9,426.94	9,671.06
Preference Dividend	0	0	0
Equity Dividend	648.56	645.2	1,280.70
Corporate Dividend Tax	93.4	79.03	183.02
Per share data (annualised)			
Shares in issue (lakhs)	32,186.80	31,901.16	31,735.47
Earning Per Share (Rs)	**1.04**	**0.95**	**3.91**
Equity Dividend (%)	100	100	200
Book Value (Rs)	59.58	59.98	61.84

Cash-Flow Statement

Cash Flow	---------- in Rs. Cr. ----------		
	Mar '14	**Mar '13**	**Mar '12**
	12 mths	12 mths	12 mths
Net Profit Before Tax	**334.52**	**301.81**	**1242.23**
Net Cash From Operating Activities	2463.46	2258.44	3653.59
Net Cash (used in)/from Investing Activities	2552.91	991.5	144.72
Net Cash (used in)/from Financing Activities	-5033.81	-4045.69	-4235.59
Net (decrease)/increase In Cash and Cash Equivalents	**-6.89**	**-714.07**	**-432.5**
Opening Cash & Cash Equivalents	205.57	919.64	1352.14
Closing Cash & Cash Equivalents	198.68	205.57	919.64

Financial Statements of M&M

Balance Sheet

Standalone Balance Sheet	---------- in Rs. Cr. ----------		
	Mar '14	**Mar '13**	**Mar '12**
	12 mths	12 mths	12 mths
Sources Of Funds			
Total Share Capital	295.16	295.16	294.52
Equity Share Capital	295.16	295.16	294.52
Share Application Money	0	0	0
Preference Share Capital	0	0	0
Reserves	16,496.03	14,363.76	11,876.57
Revaluation Reserves	0	0	0
Networth	**16,791.19**	**14,658.92**	**12,171.09**
Secured Loans	294.1	266.67	400.18
Unsecured Loans	3,451.06	2,960.40	2,774.04
Total Debt	**3,745.16**	**3,227.07**	**3,174.22**
Total Liabilities	**20,536.35**	**17,885.99**	**15,345.31**
	Mar '14	**Mar '13**	**Mar '12**
	12 mths	12 mths	12 mths
Application Of Funds			
Gross Block	10,242.58	8,602.96	7,502.36
Less: Accum. Depreciation	4,365.63	3,645.10	3,216.34
Net Block	**5,876.95**	**4,957.86**	**4,286.02**
Capital Work in Progress	1,228.44	863.48	794.73
Investments	**11,379.85**	**11,833.46**	**10,310.46**
Inventories	2,803.63	2,419.77	2,358.39
Sundry Debtors	2,509.84	2,208.35	1,988.36
Cash and Bank Balance	2,950.39	1,781.41	1,188.43
Total Current Assets	8,263.86	6,409.53	5,535.18
Loans and Advances	4,539.55	3,389.26	2,985.59
Fixed Deposits	0	0	0
Total CA, Loans & Advances	12,803.41	9,798.79	8,520.77
Deffered Credit	0	0	0
Current Liabilities	8,678.28	7,662.13	6,721.40
Provisions	2,074.02	1,905.47	1,845.27
Total CL & Provisions	10,752.30	9,567.60	8,566.67
Net Current Assets	**2,051.11**	**231.19**	**-45.9**
Miscellaneous Expenses	0	0	0
Total Assets	**20,536.35**	**17,885.99**	**15,345.31**
Contingent Liabilities	6,421.09	87.2	2,307.66
Book Value (Rs)	272.63	238.75	198.23

Profit and Loss

Standalone Profit & Loss account	---------- in Rs. Cr. ----------		
	Mar '14	**Mar '13**	**Mar '12**
	12 mths	12 mths	12 mths
Income			
Sales Turnover	40,508.50	40,441.16	31,853.52
Excise Duty	0	0	0
Net Sales	40,508.50	40,441.16	31,853.52
Other Income	770.78	639.79	574.06
Stock Adjustments	274.67	87.31	597.33
Total Income	**41,553.95**	**41,168.26**	**33,024.91**
Expenditure			
Raw Materials	29,889.44	30,675.27	24,258.94
Power & Fuel Cost	221.35	206.39	175.78
Employee Cost	2,163.72	1,866.45	1,701.78
Other Manufacturing Expenses	0	0	0
Selling and Admin Expenses	0	0	0
Miscellaneous Expenses	3,787.45	3,071.06	2,543.63
Preoperative Exp Capitalised	0	0	0
Total Expenses	36,061.96	35,819.17	28,680.13
	Mar '14	**Mar '13**	**Mar '12**
	12 mths	12 mths	12 mths
Operating Profit	**4,721.21**	**4,709.30**	**3,770.72**
PBDIT	5,491.99	5,349.09	4,344.78
Interest	259.22	191.19	162.75
PBDT	5,232.77	5,157.90	4,182.03
Depreciation	863.34	710.81	576.14
Other Written Off	0	0	0
Profit Before Tax	4,369.43	4,447.09	3,605.89
Extra-ordinary items	0	0	0
PBT (Post Extra-ord Items)	4,369.43	4,447.09	3,605.89
Tax	611.08	1,094.27	727
Reported Net Profit	**3,758.35**	**3,352.82**	**2,878.89**
Total Value Addition	6,172.52	5,143.90	4,421.19
Preference Dividend	0	0	0
Equity Dividend	862.25	798.17	767.48
Corporate Dividend Tax	104.04	92.98	101.13
Per share data (annualised)			
Shares in issue (lakhs)	6,158.92	6,139.81	6,139.75
Earning Per Share (Rs)	**61.02**	**54.61**	**46.89**
Equity Dividend (%)	280	260	250
Book Value (Rs)	272.63	238.75	198.23

Cash-Flow Statement

Cash Flow	---------- in Rs. Cr. ----------		
	Mar '14	**Mar '13**	**Mar '12**
	12 mths	12 mths	12 mths
Net Profit Before Tax	**4316.64**	**4356.47**	**3497.62**
Net Cash From Operating Activities	3727.64	4145.71	2734.95
Net Cash (used in)/from Investing Activities	-2407.08	-2895.95	-1936.54
Net Cash (used in)/from Financing Activities	-823.93	-1221.89	-306.15
Net (decrease)/increase In Cash and Cash Equivalents	**496.63**	**27.87**	**492.26**
Opening Cash & Cash Equivalents	1208.98	1136.09	695.97
Closing Cash & Cash Equivalents	1705.61	1163.96	1188.23

Indian Food Sector

Overview

India holds the second largest arable land in the world. With 20 agri-climatic regions, all 15 major climates in the world exist in India. The country also possesses 46 of the 60 soil types in the world. Agriculture, which employs 52 percent of the population, accounts for 14 percent of the GDP. India is the largest producer of pulses, milk, tea, cashew, and mangoes; and the second largest producer of tea, wheat, sugarcane, and rice. Globally, it has the largest livestock population, which includes more than 300 million cattle; the segment contributes about 25 percent of the country's farm GDP.

The food processing industry is among the largest industries in India and ranks fifth in terms of production, consumption, and exports.

Nestlé India

Nestlé India is a subsidiary of Nestlé S.A. of Switzerland. With eight factories and a large number of copackers, Nestlé's relationship with India dates back to 1912, when it began trading as The Nestlé Anglo-Swiss Condensed Milk Company (Export) Limited, importing and selling finished products in the Indian market.

Nestlé India manufactures products of truly international quality under internationally famous brand names such as Nescafé, Milkybar, Kit Kat, Bar-One, Milkmaid, and Nestea, and in recent years, the company has also introduced products of daily consumption and use such as Nestlé Milk, Nestlé Slim Milk, Nestlé Dahi, and Nestlé Jeera Raita.

Britannia

The story of one of India's favorite brands reads almost like a fairy tale. Once upon a time, in 1892 to be precise, a biscuit company was started in a nondescript house in Calcutta (now Kolkata) with an initial investment of Rs. 295. We all know this company as Britannia today.

By 1910, with the advent of electricity, Britannia mechanized its operations, and in 1921, it became the first company east of the Suez Canal to use imported gas ovens. Britannia's business was flourishing. In 1975, the Britannia Biscuit Company took over the distribution of biscuits from Parry's, which till then distributed Britannia biscuits in India. In the subsequent public issue of 1978, Indian shareholding crossed 60 percent, firmly establishing the Indianness of the firm. The following year, Britannia Biscuit Company was rechristened Britannia Industries Limited. Four years later in 1983, it crossed the Rs. 100 crores revenue mark. Britannia strode into the 21st century as one of India's biggest brands and the preeminent food brand of the country. The company's offerings are spread across the spectrum with products ranging from the healthy and economical Tiger biscuits to the more lifestyle-oriented Milkman Cheese.

- Both the companies have increasing values, which shows that they are following efficient processes to keep their expenses low.
- Also, Nestlé has much higher cash operating profit ratio than Britannia, which shows that Nestlé is more efficiently handling its operating expense (Table 3.4 and Figure 3.9).

Table 3.4 Cash operating profit ratio and EBITDA margin of Nestlé India and Britannia

Particulars	2009	2010	2011	2012	2013
Nestlé					
Cash operating profit ratio (%)	**20.30**	**20.27**	**20.75**	**22.30**	**22.88**
EBITDA-cash operating profit margin (Rs. cr.)	10,619.7	12,935.8	15,972.1	19,213.3	21,553.4
Sales and services (gross) (Rs. cr.)	52,325.9	63,827.8	76,973.1	86,141.5	94,190.2
Britannia					
Cash operating profit ratio (%)	**6.55**	**6.25**	**6.77**	**7.50**	**9.56**
EBITDA-cash operating profit margin (Rs. cr.)	2,279	2,693	3,404	4,271	6,125
Sales and services (gross) (Rs. cr.)	34,783.7	43,059	50,255.9	56,979.2	64,068.9

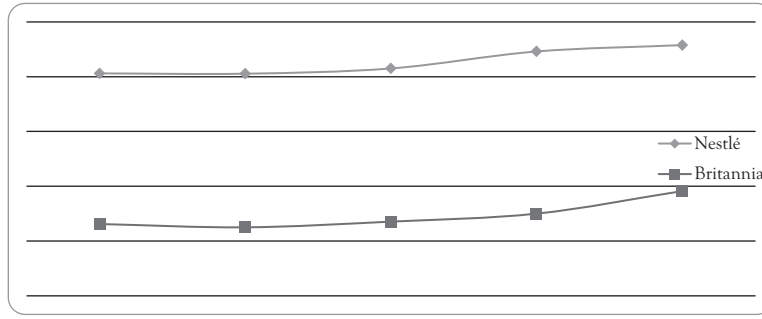


Figure 3.9 EBIDTA trend of Nestlé India and Britannia

- There is a gradual increase in the ratio values for both the companies for the years.
- Nestlé's operating profit ratio is above the industry average, whereas Britannia's value is lower, which depicts the same trend as mentioned in cash operating profit ratio (Table 3.5 and Figure 3.10).

Table 3.5 Operating profit ratio and EBITDA margin of Nestlé India and Britannia

Particulars	2009	2010	2011	2012	2013
Nestlé					
Operating profit ratio (%)	**18.17**	**18.27**	**18.76**	**19.09**	**19.38**
EBIT and sales					
EBIT–operating margin (Rs. cr.)	9,507	11,658	14,439	16,442	18,254
Sales and services (Rs. cr.)	52,325.9	63,827.8	76,973.1	86,141.5	94,190.2
Britannia					
Operating profit ratio (%)	**5.47**	**5.22**	**5.83**	**6.49**	**8.57**
EBIT–operating margin (Rs. cr.)	1,903	2,247	2,930	3,700	5,491
Sales and services (Rs. cr.)	34,783.7	43,059	50,255.9	56,979.2	64,068.9
Industry average	**12.74**	**13.49**	**13.18**	**12.40**	**12.64**

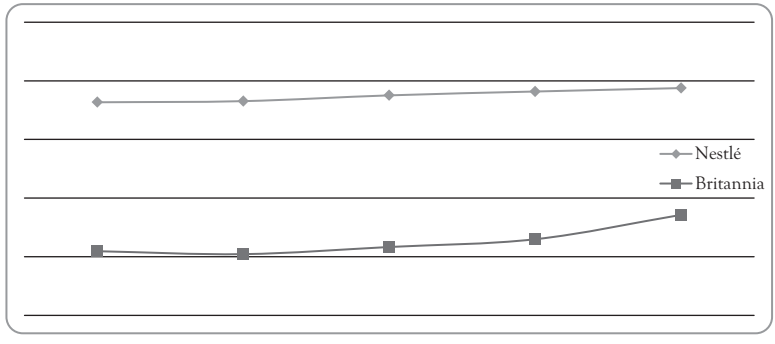


Figure 3.10 Operating profit trend of Nestlé India and Britannia

For Nestlé, the ratio value is decreasing but absolute EBIT is increasing. The company has huge debts for which it is paying interest, and it is reducing its net income as a percentage of sales.

Considering Britannia, the ratio is increasing as the company has been focusing on reducing its borrowings and thus low interest payments (Table 3.6 and Figure 3.11).

Table 3.6 Net profit ratio of Nestlé India and Britannia

Particulars	2009	2010	2011	2012	2013
Nestlé					
Net profit ratio (%)	**12.52**	**12.83**	**12.49**	**12.40**	**11.86**
PAT and sales					
PAT-net profit margin (Rs. cr.)	6,550	8,187	9,616	10,679	11,171
Sales and services (Rs. cr.)	52,325.9	63,827.8	76,973.1	86,141.5	94,190.2
Britannia					
Net profit ratio (%)	**3.35**	**3.37**	**3.72**	**4.10**	**5.77**
PAT-net profit margin (Rs. cr.)	1,165	1,453	1,867	2,339	3,698
Sales and services (Rs. cr.)	34,783.7	43,059	50,255.9	56,979.2	64,068.9

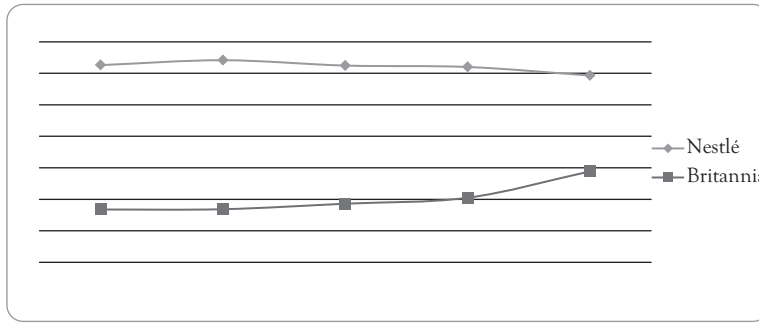


Figure 3.11 PAT trend of Nestlé India and Britannia

There is a huge fall in the ROI for Nestlé due to marginal increase in profits but a steep rise in capital employed (foreign currency borrowings since 2011).

For Britannia, the value has a gradual increase because the profits (EBIT) have been increasing and the borrowings component in capital employed has been reducing y-on-y (Table 3.7 and Figure 3.12).

For Nestlé, there is a steep rise in the Free Reserves component of R&S and, thus, there is a visible increase in the net worth as the company profits are fueling it. A gradual increase in PAT and a steep rise in NW has caused ROE to fall y-on-y.

Table 3.7 ROI/ROCE of Nestlé India and Britannia

Particulars	2009	2010	2011	2012	2013
Nestlé					
ROI/ROCE (%)	**163.39**	**134.91**	**64.32**	**57.72**	**50.26**
EBIT/CE					
EBIT (Rs. cr.)	9,507	11,658	14,439	16,442	18,254
CE (Rs. cr.)	5,819	8,641	22,448	28,486	36,321
Britannia					
ROI/ROCE (%)	**22.96**	**24.64**	**30.70**	**40.22**	**63.60**
EBIT (Rs. cr.)	1,903	2,247	2,930	3,700	5,491
CE (Rs. cr.)	8,291	9,120	9,545	9,199	8,633

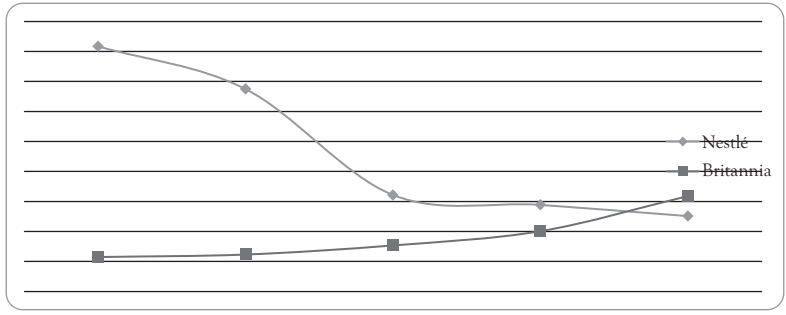


Figure 3.12 ROCE trend of Nestlé India and Britannia

Table 3.8 ROE of Nestlé India and Britannia

Particulars	2009	2010	2011	2012	2013
Nestlé					
ROE (%)	**112.68**	**95.70**	**75.48**	**59.38**	**47.16**
PAT and NW					
PAT (Rs. cr.)	6,550	8,187	9,616	10,679	11,171
NW (Rs. cr.)	5,813	8,554	12,740	17,984	23,688
Britannia					
ROE (%)	**29.40**	**32.19**	**35.91**	**36.34**	**43.11**
PAT (Rs. cr.)	1,165	1,453	1,867	2,339	3,698
NW (Rs. cr.)	3,963	4,513	5,200	6,435	8,577

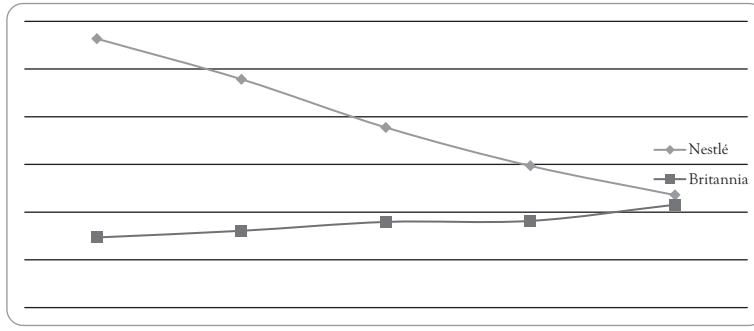


Figure 3.13 ROE trend of Nestlé India and Britannia

For Britannia, of the funds deployed in 2010, '11 and '12 have started reaping profits now and a higher PAT is being retrieved, which has led to the increase in the ROE value for year 2013 (Table 3.8 and Figure 3.13).

Recommendations

Nestlé

It can pay off some of its debt that is on the piling side. The company has huge amount of reserves that can be used for expenses' coverage.

From an investor's perspective, the company is doing good as it is handling its operating expenses in an efficient way, and the operating profits are good although the huge debt from the foreign borrowings is reducing the net profit when compared to the cash operating and operating profit margins. This is because the payment of interest eats up all the profits. Of late, Nestlé has also been spending huge amounts of money for expansion and this would create an impact on the liquid assets of the company but will help in future growth of the company.

Britannia

It has to reduce its operating expenses so that they do not eat up all the revenues and let profits grow. At present, the company is not utilizing its resources in an efficient way, which is affecting the profitability of the company in a negative manner. The company should aim at utilizing the resources and the inventory in a way that the profitability of the company increases.

Both companies should concentrate on new products and innovations in the market. This will increase their sales and will thus increase profitability.

Future Outlook

The Confederation of Indian Industry has estimated that the food processing sector has the potential to attract US$33 billion of investment in 10 years and generate employment of around 9 million people. Also, the opportunities in food and grocery retail in India are immense. The revival of the agriculture sector could open up opportunities for developing a number of other businesses in the food industry, such as integrated cold chains, mega food parks, and processable varieties of crops, among many others. To promote food processing industries in India, the MoFPI had finalized the Vision 2015 document, which envisages tripling the size of the processed food sector by increasing the level of processing of perishables from 6 to 20 percent, value addition from 20 to 35 percent and share in global food trade from 1.5 to 3 percent, by 2015.

With such a supportive and promoting environment, both companies, Nestlé and Britannia, are in a good position and will prosper in the future. One thing that is important in the market is the health factor in the food segment. People are getting cautious about their health and if this segment is tapped, the profitability will increase due to humongous sales.

Indian Pharmaceutical Sector

India's pharmaceutical sector will be valued around US$45 billion by 2020, according to a major study by global management and consulting firm, McKinsey & Co. The logic for this optimistic judgment are well reasoned. In the period 2002 to 2012, the country's health-care sector grew three times in size, touching US$70 billion from US$23 billion. India's pharmaceutical market saw a similar rise, reaching US$18 billion in 2012 from US$6 billion in 2005. The report further states that the Indian pharmaceutical market will be the sixth largest in the world by 2020. The rise of pharmaceutical outsourcing and investments by multinational companies, coupled with the country's growing economy, growing health insurance segment, and better health-care facilities, are expected to drive the market's growth.

India today is one of the top emerging markets in the global pharmaceutical scene. The sector is highly knowledge based and its steady growth is affecting the Indian economy positively. The organized nature of the Indian pharmaceutical industry is attracting several foreign companies that are finding it financially viable to increase or begin their operations in the country.

India currently exports drug intermediates, active pharmaceutical ingredients, finished dosage formulations, bio-pharmaceuticals, and clinical services across the globe. Among the top pharma companies, Abbott with total sales of Rs. 452 crores (US$74.76 million), Cipla with Rs. 322 crores (US$53.26 million), Sun Pharma with Rs. 313 crores (US$51.77 million), and Zydus Cadila with Rs. 268 crores (US$44.32 million) were the fastest growing companies in the month of September 2013. In terms of growth, Sun Pharma (17.8 percent) is ahead of peers such as Cadila (1.8 percent), Cipla (0.8 percent), and McLeod (0.7 percent).

In various global markets, governments have been taking several cost-effective measures in order to bring down health-care expenses. Thus, governments are focusing on speedy introduction of generic drugs into the market. This too will benefit Indian pharma companies.

Ranbaxy Laboratories Limited

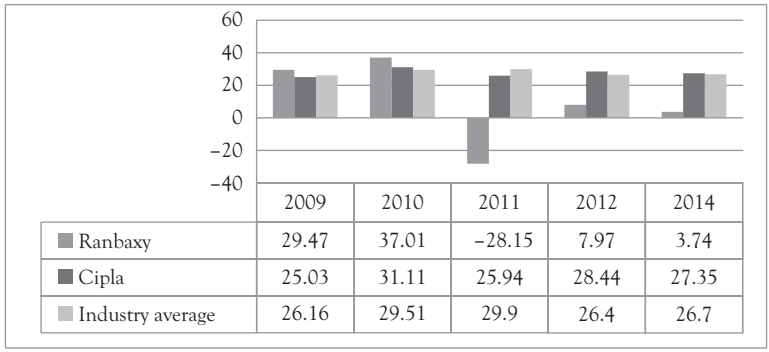
Ranbaxy is an Indian multinational pharmaceutical company incorporated in India in 1961. The company went public in 1973 and Japanese pharmaceutical company Daiichi Sankyo acquired a controlling share in 2008. In 2014, Sun Pharma acquired the entire 63.4 percent share of Ranbaxy making the conglomerate world's fifth largest specialty generic pharma company. Ranbaxy exports its products to 125 countries with ground operations in 43 and manufacturing facilities in 8 countries.

Cipla Laboratories Limited

It was founded by Dr. Khwaja Abdul Hamied as "The Chemical, Industrial & Pharmaceutical Laboratories" in 1935 in Mumbai. The name of the company was changed to "Cipla Limited" with effect from July 20, 1984, wherein the word *Cipla* came from the first letters of each word in the old name "The Chemical, Industrial & Pharmaceutical Laboratories." With a footprint across five continents, Cipla is moving fast toward its goal of making affordable health care available to all. The company's revenue from operations on a consolidated basis during the financial year 2013 to 2014 amounted to Rs. 10,218 crores against Rs. 8,388 crores in the previous year, recording a growth of 21.8 percent. As India's second largest pharmaceutical company, Cipla is in a strong position to fulfill its commitment to provide modern medicine to everyone in the country.

Analysis

- Till 2011, the two companies had a cash operating ratio close to that of industry average after which clear downtrend for Ranbaxy can be observed. Ranbaxy has miscellaneous expenses in the form of foreign exchange fluctuations where



	2009	2010	2011	2012	2014
Ranbaxy	29.47	37.01	−28.15	7.97	3.74
Cipla	25.03	31.11	25.94	28.44	27.35
Industry average	26.16	29.51	29.9	26.4	26.7

Figure 3.14 Cash operating profit trend of Ranbaxy and Cipla

other currencies with respect to the dollar had depreciated in 2008 and 2011.

- Since 2012, it can be observed that Cipla has been managing its expenses more efficiently and more in line with the industry trend while Ranbaxy's performance has been plummeting (Figure 3.14).

Analysis

- While Cipla has maintained an operating profit ratio consistent with that of the pharmaceutical industry, that for Ranbaxy has fluctuated sharply, especially around 2011 due to miscellaneous expenses in the form of foreign exchange fluctuations.
- Ranbaxy's falling operating profit indicates that the company's profitability is falling and its capability to convert its revenue into operating income is declining. Cipla's performance is considerably satisfactory and in line with industry average (Table 3.9 and Figure 3.15).

Analysis

- Cipla has had a decent net profit ratio over the years, except in 2011. As for Ranbaxy, the company's profit ratio declined sharply in 2011, improved a bit in 2012, but has again fallen since then.

Table 3.9 Operating profit ratio and EBIT margin of Ranbaxy and Cipla

Particulars	2009	2010	2011	2012	2014
Ranbaxy					
Operating profit ratio (%)	**26.34**	**32.94**	**−31.66**	**5.03**	**−0.30**
EBIT and sales					
EBIT-operating margin (Rs. cr.)	1,249.59	1,847.78	−2,475.59	318.86	−21.2
Sales and services (Rs. cr.)	4,742.82	5,608.67	7,818.10	6,331.46	6,908.96
Cipla					
Operating profit ratio (%)	**22.01**	**28.06**	**22.07**	**24.45**	**23.94**
EBIT-operating margin (Rs. cr.)	1,105.33	1,518.54	1,412.34	1,730.16	2,269.81
Sales and services (Rs. cr.)	5,021.69	5,411.68	6,398.73	7,074.73	9,479.41
Industry average (%)	**22.86**	**25.78**	**24.27**	**23.02**	**23.36**

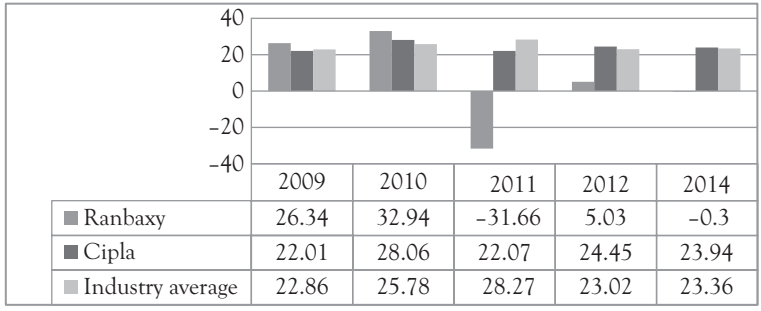


Figure 3.15 Operating profit trend of Ranbaxy and Cipla

- Ranbaxy had graphed an improvement in 2012 owing to sale of the generic version of Liptor drug but failed to sustain it in the next quarters (Table 3.10 and Figure 3.16).

Table 3.10 Net profit ratio of Ranbaxy and Cipla

Particulars	2009	2010	2011	2012	2014
Ranbaxy					
Net profit ratio (%)	**12.05**	**20.48**	**–39.03**	**–2.56**	**–12.72**
PAT and sales					
PAT-net profit margin (Rs. cr.)	571.98	1,148.73	–3,052.05	–162.34	–879
Sales and services (Rs. cr.)	4,742.82	5,608.67	7,818.10	6,331.46	6,908.96
Cipla					
Net profit ratio (%)	**15.46**	**19.99**	**15.00**	**15.88**	**14.64**
PAT-net profit margin (Rs. cr.)	776.81	1,081.49	960.39	1,123.96	1,388.34
Sales and services (Rs. cr.)	5,021.64	5,411.68	6,398.73	7,074.73	9,479.41
Industry average (%)	**14.08**	**15.73**	**17.17**	**13.76**	**12.53**

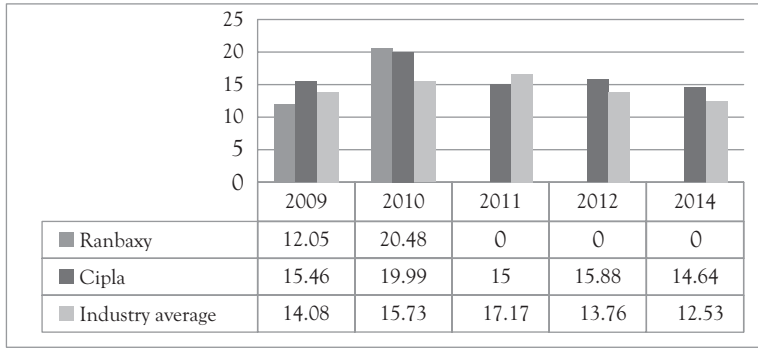


Figure 3.16 PAT trend of Ranbaxy and Cipla

Analysis

- There is a huge fall in the ROI for Ranbaxy, mainly due to the huge fall in profits (EBIT) that it has registered. The decrease in the capital employed has not been able to compensate for that.

Table 3.11 ROI/ROCE of Ranbaxy and Cipla

Particulars	2009	2010	2011	2012	2014
Ranbaxy					
ROI/ROCE (%)	**16.69**	**19.67**	**–39.55**	**4.73**	**–0.29**
EBIT and CE					
EBIT (Rs. cr.)	1,249.59	1,847.78	–2,475.59	318.86	–21.2
CE (Rs. cr.)	7,482.98	9,393.11	6,258.37	6,731.90	7,279.83
Cipla					
ROI/ROCE (%)	**20.89**	**25.65**	**20.02**	**22.87**	**20.69**
EBIT and CE					
EBIT (Rs. cr.)	1,105.33	1,518.54	1,412.34	1,730.53	2,269.81
CE (Rs. cr.)	5,290.99	5,919.16	7,054.34	7,563.20	10,969.04

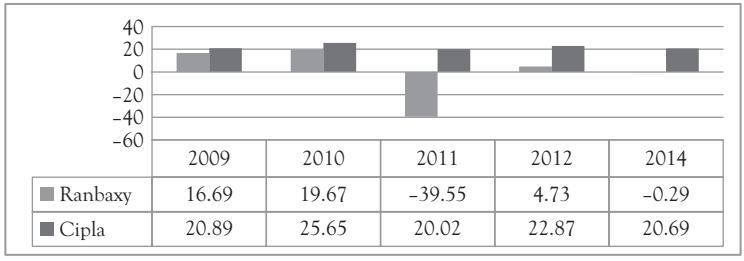


Figure 3.17 ROI trend of Ranbaxy and Cipla

- For Cipla, the ROI has been considerably stable with decent levels of profit in relation to the capital employed (Table 3.11 and Figure 3.17).

Analysis

- Ranbaxy has seen a huge fall in its ROE and is certainly not the company investors want to put their money in. The improvement in 2012 has again been followed by a considerable setback.
- For Cipla, the ROE has been quite stable in recent years and the company can be considered for investment purpose by the investors (Table 3.12 and Figure 3.18).

Table 3.12 ROE of Ranbaxy and Cipla

Particulars	2009	2010	2011	2012	2014
Ranbaxy					
ROE (%)	**13.83**	**22.38**	**−158.61**	**−8.44**	**−80.12**
PAT and NW					
PAT (Rs. cr.)	571.98	1,148.73	−3,052.05	−162.34	−879
NW (Rs. cr.)	4,134.60	5,132.40	1,924.84	1,922.08	1,096.99
Cipla					
ROE (%)	**17.85**	**18.28**	**14.52**	**14.88**	**13.75**
PAT (Rs. cr.)	776.81	1,081.49	960.39	1,123.96	1,388.34
NW (Rs. cr.)	4,350.75	5,914.09	6,612.95	7,550.28	10,091.64

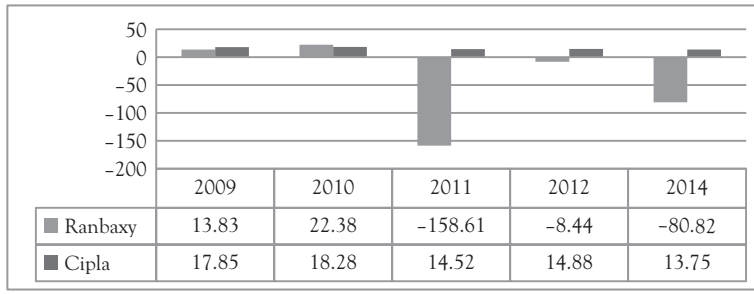


Figure 3.18 ROE trend of Ranbaxy and Cipla

Recommendations

Ranbaxy

The company can pay off some of its debt that it has been piling up. The company has huge reserves that can be used for meeting its expenses. As an investor, the company is not doing good as it is not able to sustain the heavy interests it is paying on the debts. The huge debt from the secured and unsecured loans is reducing the net profit when compared to the cash operating and operating profit margins. This is because the payment of interest eats up all the profits.

Of late, Ranbaxy has also incurred loss because of closing up of various plants due to impurity issue in drugs, which has an immediate impact on the fixed assets of the company as it has to write them off, which is clearly reflected in its balance sheet.

Cipla

It should continue with the pace it is growing currently. The profitability ratios for Cipla are quite close to the industry average, which is a good sign for the health of the company. At present, the company is investing more in research and development (R&D), which is not reflected immediately in profits of the company but will enhance the growth in coming years.

The company should aim at utilizing the resources and inventory in a way that the profitability of the company increases.

Future Outlook

As per extant policy, FDI up to 100 percent, under the automatic route, is permitted in the pharmaceutical sector for Greenfield investment. Hundred percent FDI is also permitted for investments in existing companies under the government approval route. Furthermore, the Government of India has also put in place mechanisms such as the Drug Price Control Order and the National Pharmaceutical Pricing Authority to address the issue of affordability and availability of medicines.

Some of the major initiatives taken by the government to promote the pharmaceutical sector in India are as follows:

- India plans to set up industrial parks in the pharmaceutical and information technology (IT) sectors in China to strengthen India–China trade and investment ties.

The key factor in the pharmaceutical industry is innovative products and diversification. Any company that comes up with a new product can benefit in the pharmaceutical industry. The positive thing that happened with Ranbaxy is its acquisition by Sun Pharma, which has brought the much needed funding to it.

PART III

Efficiency Ratios

CHAPTER 4

Concept of Efficiency Ratios

The Present Chapter

This chapter discusses the concept of efficiency or activity ratios, as they are commonly referred to.

Operating Efficiency

Operating efficiency means how well a company is able to generate output from its inputs. Inputs consist of money, raw materials, assets, or people. Output can be in the form of sales generated, new customers, and so on.

Operating efficiency ratios are calculated to ascertain the efficiency with which a company utilizes its resources in order to generate revenues. They are also called as "activity or turnover ratios."

Efficiency Ratios

Inventory Turnover Ratio

This ratio shows how many times a company's inventory is sold and replaced over a period. It is an indication of how effectively inventory is managed by a company. It is calculated as:

$$\text{ITR} = \frac{\text{Sales}}{\text{Average inventory}}$$

However, it may also be calculated as:

$$\text{ITR} = \frac{\text{COGS}}{\text{Average inventory}}$$

The higher the ratio the better it is as it shows that the company can effectively sell the inventory it buys. If it is low, it reflects that the company overspends by buying too much inventory and wastes resources by storing nonsalable inventory.

Average Holding Period

It indicates the number of days the company is holding its inventory.

It is calculated as:

$$\text{AHP} = \frac{\text{Days in a year}}{\text{ITR}}$$

It is used to determine how quickly a company is converting its inventory into sales. A low holding period is desirable since it shows that the company is able to sell its inventory quickly, thus resulting in higher sales.

Debtor's Turnover Ratio

This ratio is used to quantify a firm's effectiveness in extending credit and collecting debts.

It is calculated as:

$$\text{DTR} = \frac{\text{Sales}}{\text{Average debtors}}$$

It indicates the speed at which the sundry debtors are converted in the form of cash. The higher the value, the faster a company is in collecting money from debtors. A lower ratio means inefficient management of debtors.

Average Collection Period

This ratio indicates the number of days the firm takes to receive payments it owes in regard to the credit sales made to the customers.

It is calculated as:

$$\text{ACP} = \frac{\text{Days in a year}}{\text{DTR}}$$

A lower collection period is preferable because it shows that it does not take a company very long to turn its receivables into cash.

Creditor's Turnover Ratio

This ratio is used to measure a company's ability to get trade credit and the rate at which it pays off its suppliers.

It is calculated as:

$$\text{CTR} = \frac{\text{Purchases}}{\text{Average creditors}}$$

A lower CTR is desirable from a company's perspective because it shows the confidence of the suppliers in giving credit. On the other hand, a higher ratio shows that the company pays its bills frequently and regularly.

Average Payment Period

This ratio indicates the average number of days in which the company makes payments to its suppliers.

It is calculated as:

$$\text{APP} = \frac{\text{Days in an year}}{\text{CTR}}$$

It shows how long a company takes to pay off its creditors. From a company's point of view, a high payment period is good, but for a creditor this period should be as low as possible.

Assets Turnover Ratio

This ratio is used to measure the company's ability to utilize its assets efficiently to generate revenue.

It is calculated as:

$$\text{ATR} = \frac{\text{Sales}}{\text{Total assets}}$$

The higher the ratio, the better it is because it implies that the company is generating more revenue on its assets.

Cash Conversion Cycle

It is a metric that expresses the number of days that the company takes to convert resource inputs into cash flows. The CCC attempts to measure the amount of time each input is tied up in the production and sales process before it is converted into cash through sales to customers. It looks at the amount of time needed to sell inventory, the amount of time needed to collect receivables, and the time the company affords to pay to its suppliers. It can be stated with the following equation:

$$\text{CCC} = \text{Average days of inventory} + \text{ACP} - \text{APP}$$

Box 4.1: Bird's eye view of efficiency ratios

All efficiency ratios, including ITR, DTR, CTR, and ATR, are expressed in number of times. AHP, collection period, payment period, and cash cycle are expressed in number of days.

CHAPTER 5

Corporate Examples of Efficiency Ratios

The Present Chapter

This chapter deals with the analysis of the efficiency of the *auto sector*, *hotel sector*, and *telecom sector* in India. A comparative analysis of the activity ratios of the leading Indian companies in the sector has been done.

Indian Auto Sector

The overview of Indian auto sector has been discussed in the previous section.

Maruti Suzuki

Maruti Suzuki India Limited is a leading automobile manufacturer in India. It is a subsidiary of Japanese automobile and motorcycle manufacturer Suzuki. It manufactures and sells a complete range of cars from the entry-level Alto, to the hatchback Ritz, Celerio, A-Star, Swift, Wagon R, and Zen; sedans DZire, Kizashi, and SX4; Eeco and Omni in the "C" segment; multipurpose vehicle Suzuki Ertiga; and sports utility vehicle Grand Vitara.

Maruti Udyog Limited was established in February 1981, though the actual production commenced only in 1983. It started with the Maruti 800. Originally, 74 percent of the company was owned by the Indian government, and 26 percent by Suzuki of Japan. As of May 2007, the government of India sold its complete share to Indian financial institutions and no longer has any stake in Maruti Udyog.

Mahindra & Mahindra

For the company overview, refer to Chapter 3.

Problems with the Company

Maruti Suzuki

Maruti Suzuki has faced some difficulties with regard to its R&D facility in Rohtak. The Haryana government stalled the construction of the R&D facility. The Haryana government stated in its complaint with the Delhi High Court that Maruti Suzuki did not obtain the needed environmental clearance for the project. The Rs. 3,500-crore-plus R&D project, built over 600 acres, had to be put on hold as the state government initiated prosecution against the company under the Environment Protection Act of 1986.

Another problem with Maruti Suzuki is the recall of its compact sedan, Swift Dzire. It is one of the biggest-ever car recall for a single model in India. Maruti Suzuki initiated the process of recalling around 1 lakh units of Swift Dzire. The recall list included models manufactured in 2013 and 2014 and these are being pulled off the road in batches to replace a defective component. Apart from adding on to the costs, this recall tarnished the reliability of the Swift DZire brand, which is the second largest selling car for the company.

Apart from these issues, there is also a conflict of interest between the parent company Suzuki Motor Corp and the shareholders of its Indian subsidiary Maruti Suzuki. The issue is related to the Gujarat plant. In January this year, Suzuki announced that it would invest Rs. 3,000 crores in a plant in Gujarat and sell the cars it produces there to Maruti Suzuki. That marked a significant change from an earlier plan under which the latter would have built the plant itself. The announcement raised concerns that Suzuki could sell the cars at a higher price to Maruti than it would have cost the latter to produce them itself. Institutional shareholders such as Axis Mutual Fund, DSP BlackRock Mutual Fund, HDFC Mutual Fund, ICICI Prudential Mutual Fund, and Reliance Mutual Fund opposed the plan. In March, Maruti succumbed to pressure from investors, independent directors, and market regulator Securities and Exchange Board of

India, and agreed to seek minority shareholders' approval for the contract manufacturing agreement. The firm clarified to the BSE that it could earn about Rs. 10,500 crore—assuming a posttax return of 8.5 percent per year during the initial 15-year period of the contract manufacturing agreement—from the total investment (Rs. 18,500 crores) it would have otherwise had to make in the Gujarat plant. And in the event of termination of the agreement, the plant would be transferred to it at book value. Maruti's current ROCE is in the range of 13 to 14 percent, and it makes more sense to make productive use of Maruti's cash by investing in Gujarat instead of Suzuki.

The major problems of the company are related to the government regulations and clearances. With the change in central government, it is expected that these issues would be solved quickly and the company would be able to focus more on its core business activities.

Mahindra & Mahindra

Mahindra & Mahindra Ltd. (M&M) has faced a drop in its sales numbers, unlike its peers. Auto sales numbers in the months until August 2014 fell by 7 percent from a year ago, even as the industry's passenger vehicle segment bounced back faster than expected.

This situation originated because of the continuous rise in diesel prices over the last year (almost 12 percent), along with higher excise on diesel vehicles, which had raised the cost of ownership and break-even time for UVs. M&M's range of UVs and carriers runs mainly on diesel. So, its past unique selling proposition (when petrol prices were rising faster than diesel) is currently a drag on sales.

The second factor is its absence in the compact UV space that has caught customer fancy in the last year. M&M came out with no new launches to combat competition from foreign companies like Renault, Ford, Nissan, and so on. There is a huge concern over the aging models of M&M for the company and it needs to react to this concern quickly. Hence, there is some difficulty in marketing and convincing customers with no new line up to tout.

On account of these factors, the company lost around 13 percent of the market share in the UV category.

Furthermore, there was been a moderation in tractor volume, where the firm earns higher margins compared to the photo auto segment. The company's 2014 annual report shows that higher working capital as a result of stiff market conditions led to strained operating cash flows. Also, the free cash flows were lower during the FY 2013 to 2014, on account of higher CapEx and investment into subsidiaries.

Efficiency Analysis

The efficiency analysis of the companies in the sector is presented in the following tables and figures.

Table 5.1 DTR and ACP of auto sector

1. Maruti

Debtors Turnover Ratio (DTR)

Year	2014	2013	2012
Sales	48,878.60	49,090.00	39,495.30
Debtors	1,413.70	1,469.90	937.6
DTR	34.575	33.397	42.124

Average Collection Period (ACP)

Year	2014	2013	2012
Days	365	365	365
DTR	34.575	33.397	42.124
ACP	10.557	10.929	8.665

2. Mahindra & Mahindra

Debtors Turnover Ratio (DTR)

Year	2014	2013	2012
Sales	43,120.18	43,412.65	34,348.18
Debtors	2,509.84	2,208.35	1,928.53
DTR	17.180	19.658	17.811

Average Collection Period (ACP)

Year	2014	2013	2012
Days	365	365	365
DTR	17.180	19.658	17.811
ACP	21.245	18.567	20.493

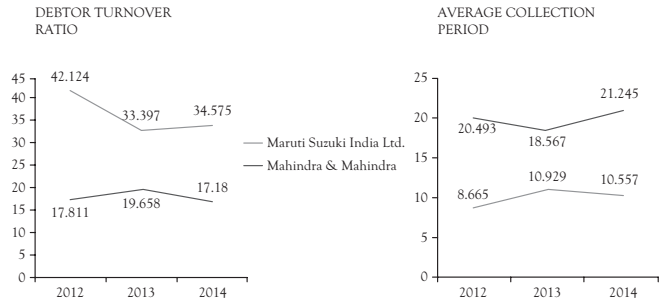


Figure 5.1 Debtors turnover trend and average collection trend of auto sector

From Table 5.1 and Figure 5.1, it is visible that Maruti Suzuki outperforms M&M as it has a higher DTR and lower ACP for all the three years. This shows that Maruti Suzuki is more efficient in managing its trade receivables.

However, M&M has maintained a more-or-less consistent DTR, whereas for Maruti Suzuki, this ratio has reduced from 42.12 in 2011 to 2012 to 34.58 in 2013 to 2014, respectively. For Maruti Suzuki, the percentage increase in debtors is more than the percentage increase in sales, which implies that either the credit sales must be forming a major component of the increase in sales or the credit lending period has increased.

Table 5.2 CTR and APP of auto sector

1. Maruti

➨ **Creditors Turnover Ratio (CTR)**

Year	2014	2013	2012
Purchases	31,225.30	32,527.40	28,470.90
Creditors	5,513.80	4,545.80	3,990.30
CTR	5.663	7.155	7.135

➨ **Average Payment Period (APP)**

Year	2014	2013	2012
Days	365	365	365
CTR	5.663	7.155	7.135
APP	64.453	51.006	51.156

2. Mahindra & Mahindra

➨ **Creditors Turnover Ratio (CTR)**

Year	2014	2013	2012
Purchases	29,699.61	30,469.06	23,624.49
Creditors	5,320.95	4,812.41	4,256.77
CTR	5.582	6.331	5.550

➨ **Average Payment Period (APP)**

Year	2014	2013	2012
Days	365	365	365
CTR	5.582	6.331	5.550
APP	65.393	57.650	65.767

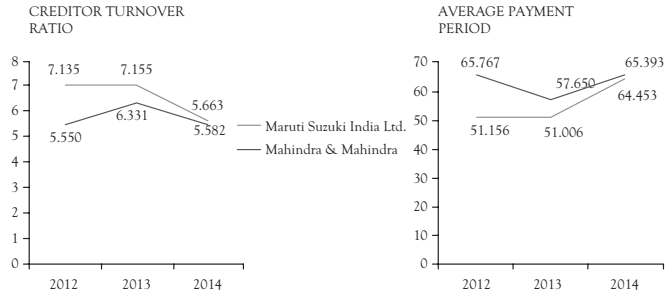


Figure 5.2 Creditors turnover trend and average payment trend of auto sector

From Table 5.2 and Figure 5.2, we see that both the companies maintain comparable CTR and APP for the year 2013 to 2014, although M&M ranks slightly better than Maruti Suzuki. This indicates that M&M is leveraging more than Maruti Suzuki in managing its trade payables.

Moreover, Maruti Suzuki has been able to increase its APP from 51 days in 2011 to 2012 to 64 days in 2013 to 2014, which shows that the company has improved its negotiating power with its suppliers. However, there is not much variation in the payment period for M&M.

Such a high payment period can be attributed toward the strong market position of both the companies, which allows them to dictate terms with their suppliers.

Table 5.3 STR and TATR of auto sector

1. Maruti

Stock Turnover Ratio (STR)

Year	2014	2013	2012
Sales	48,878.60	49,090.00	39,495.30
Stock	1705.90	1840.70	1796.50
STR	28.653	26.669	21.985

Total Asset Turnover Ratio (TATR)

Year	2014	2013	2012
Sales	48,878.60	49,090.00	39,495.30
Total Assets	30535.70	26734.20	22302.20
TATR	1.601	1.836	1.771

2. Mahindra & Mahindra

Stock Turnover Ratio (STR)

Year	2014	2013	2012
Sales	43,120.18	43,412.65	34,348.18
Stock	2,803.63	2,419.77	2,358.39
STR	15.380	17.941	14.564

Total Asset Turnover Ratio (TATR)

Year	2014	2013	2012
Sales	43,120.18	43,412.65	34,348.18
Total Assets	31,288.65	27,453.59	23,769.96
TATR	1.378	1.581	1.445

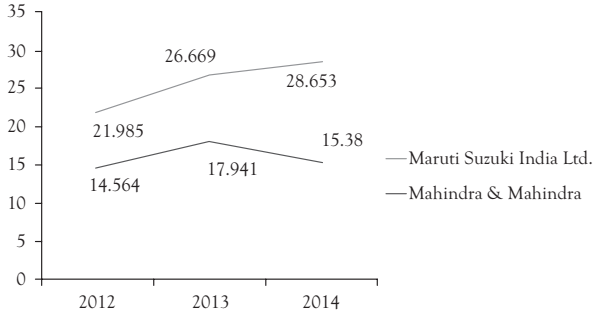


Figure 5.3 Stock turnover trend of auto sector

From Table 5.3 and Figure 5.3, we can clearly see that the STR of Maruti Suzuki is better than that of M&M. This is primarily due to higher inventory levels at M&M.

Maruti Suzuki has improved its STR year on year (yoy), whereas M&M has not been able to do so. There might be a greater risk of inventory obsolescence in case of M&M vis-à-vis Maruti Suzuki as it is not much efficient in converting its inventories into sales.

From Figure 5.4, we can see that, for the past three years, Maruti Suzuki has a better TATR than M&M. It implies that Maruti Suzuki uses its assets more efficiently in generating revenue.

For both the companies, this ratio has reduced in comparison to their previous year's figures. This is on account of an increase in total assets of both companies. This increase in total assets can be attributed to CapEx and R&D expenditure by both companies, which would facilitate greater revenues and improvements in this ratio in the coming years.

From Figure 5.5, we see that both Maruti Suzuki and M&M have a negative CCC, which implies that both the companies fund their working capital requirements primarily through trade credit.

However, in comparison to M&M, Maruti Suzuki has a better CCC for each of the three years, which means that it ranks better in terms of converting its resource inputs into cash flows. It shows a yoy improvement on account of better management of account payables whereas the CCC for M&M has been more or less constant for the last three years.

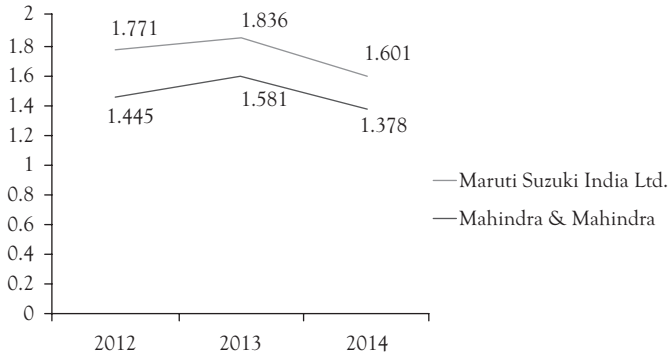


Figure 5.4 Total assets turnover trend of auto sector

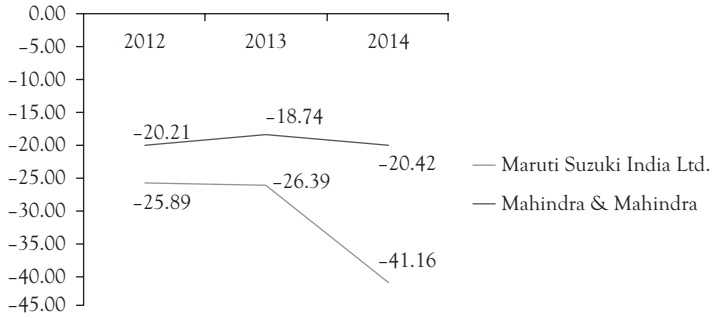


Figure 5.5 Cash conversion cycle of auto sector

Recommendations

Both Maruti Suzuki and M&M can leverage their market positions during the high growth phase in the coming years. Maruti can continue focusing on its passenger vehicles segment with its huge dealer network, whereas M&M can dominate in its niche commercial vehicles, UVs, through its widespread distribution channel.

Maruti Suzuki needs to get in terms with the government by way of settlement for the Gujarat plant and also for the R&D facility in Rohtak.

Both companies operate with a high operational efficiency, although M&M can look at negotiating terms with its dealers and also in terms of moving its stock quickly from production to sales.

M&M should also look into its CapEx plans as its aging fixed assets are primarily the reason for its lower TATR.

Since credit creation is expected to expand on account of higher economic growth, both Maruti Suzuki and M&M get into tie-ups with banks for designing attractive financing schemes for auto loans.

With a longer-term perspective, both companies can add capacities while the industry is still not in the boom phase. Its capacity addition is going to provide support in the high-demand period.

Future Outlook

Maruti Suzuki

Maruti Suzuki is the market leader in the passenger vehicle segment of India's automotive industry. The trend of Maruti Suzuki's market share

is showing growth. Its market share has increased from 39.4 percent to 42.1 percent yoy in FY 2014.

This trend is expected to continue on account of many new models in the pipeline. The company has launched a UV (S-Cross), with an expected price lower than those of traditional UVs in the market. It also has a compact SUV and a mid-size sedan (Ciaz) launched in FY 2015. Although the mid-size segment has tough competition with the likes of Hyundai Verna and Honda City, there is scope for success in the budget UV segment.

These projects can be substantiated with the increase in CapEx (part of R&D) by the company. The increase in CapEx is 64.98 percent yoy in FY 2014. Also, the company is coming up with planned expenditures in R&D facilities. There is an upcoming test track facility in Rohtak, along with the commissioning of other such facilities. There has also been an increase in the employee remuneration expense (27.91 percent increase in FY 2014). This is on account of the addition of 904 employees in the workforce for the new R&D facilities.

The company is also investing in its distribution network by focusing on emerging markets (rural areas). It has recruited around 8,000 locals as resident dealer sales executives. This addition in distribution network would show growth from a longer-term perspective (more than one year) as these markets are still emerging.

In appropriating profits, the company has increased the amount kept for general reserve by 16.35 percent (FY 2014). This may be due to the fact that the company may have opportunities for investing in positive NPV projects.

The Indian economy is expected to be bottomed out at 4.7 percent growth in GDP (FY 2014). With the advent of a new government, there are expectations of the economy picking up. Since Maruti Suzuki is the market leader, it can utilize the maximum benefit of an increase in auto sales due to an increase in the purchasing power of people (although the growth in sales may take around two more quarters).

The company maintains a very low financial leverage of 0.0428:1. Also, the company is having excellent working capital management. Its CCC is –25.23 days, mainly because of high availability of trade credit. Hence, it is financially sound in terms of both long- and short-term perspectives.

There is a growth trend in PAT and operating profit. PAT has increased 16.34 percent. Also, the operating profit in PAT is 70.43 percent in FY 2014. The operating profit, as a percentage of PAT was 66.04 percent in FY 2013. This is a positive sign as a major part of the profit is attributed to operating (i.e., recurring) earnings.

Mahindra & Mahindra

M&M is India's third largest company in passenger vehicle category in terms of volume and second largest in commercial vehicle category. It is the market leader in terms of the domestic UV with a 41.7 percent market share. The company has not been performing very well in the past two to three years due to overall slowdown in the automotive sector.

The mid- to long-term growth forecast remains strong for the Indian economy. As a result of an increase in the income levels and lifestyle aspirations, the potential size of the Indian vehicle market is likely to be 36 percent more than the current size by FY 2018. The company can leverage its market position as it is the second largest automaker (in terms of market cap).

Growth in agricultural and industrial production, priority spending on infrastructure projects, spread of organized retail, and the growing prevalence of the hub-and-spoke model for transportation of goods would lead to a significant expansion of the overall market size. In the mid- to long term, stricter implementation of the norms related to road worthiness will also lead to considerable expansion in the market of commercial vehicles. Since M&M has many commercial vehicle models in the pipeline, it can gain advantage of the growing market prospects.

The company's cost-leadership strategy has been well implemented on account of focused cost optimization, productivity improvements, and improved efficiency measures like supply chain management, and it has exploited synergies between its sectors.

The long-term outlook for the company is positive, although there are some short-term concerns like high interest rates, low industrial growth, and high inflation due to lack of monsoon. Still, the consumer confidence and sentiment, which is one of the key determinants of growth auto sales, is showing signs of picking up (the huge increase in Indian equity markets denotes positive market sentiment).

Annexure I

Financial Statements of Maruti Suzuki

Profit and Loss Statement of Maruti Suzuki

Rs (in million)

	For the year ended 31.03.2014	For the year ended 31.03.2013	For the year ended 31.03.2012
REVENUE FROM OPERATIONS			
Gross sale of products	478,228	481,147	386,141
Less: excise duty	51,780	55,021	39,082
Net sale of products	426,448	426,126	347,059
Other operating revenue	10,558	9,753	8,812
	437,006	**435,879**	**355,871**
Other income	8,229	8,124	8,268
Total revenue	**445,235**	**444,003**	**364,139**
EXPENSES			
Cost of material consumed	288,989	303,492	267,055
Purchase of stock-in-trade	24,314	21,864	15,325
Change in inventories of finished goods, Work-in-progress and stock-in-trade	185	234	(1,297)
Employees benefit expenses	13,681	10,696	8,013
Finance costs	1,759	1,898	552
Depreciation and amortization expense	20,844	18,612	11,384
Other expenses	59,221	57,735	42,072
Vehicles/dies for own use	(343)	(438)	(437)
Total expenses	**408,650**	**414,093**	**342,677**
Profit before tax	**36,585**	**29,910**	**21,462**
Less : Tax expense - Current tax	7,479	7,228	4,138
- MAT credit availed	-	(904)	-
- Deferred tax	1,276	(335)	972
Profit for the year	**27,830**	**23,921**	**16,352**
Basic/diluted earnings per share of Rs. 5 each	**92.13**	**79.19**	**57**

Balance Sheet of Maruti Suzuki

Rs (in million)

	As at 31.03.2014	As at 31.03.2013	As at 31.03.2012
EQUITY AND LIABILITIES			
Shareholders' Funds			
Share Capital	1,510	1,510	1,445
Reserves and Surplus	208,270	184,279	150,429
	209,780	**185,789**	**151,874**
Non-Current Liabilities			
Long Term Borrowings	4,604	5,429	-
Deferred Tax Liabilities (Net)	5,866	4,087	3,023
Other Long Term Liabilities	2,386	2,503	966
Long Term Provisions	1,980	2,259	1,693
	14,836	**14,278**	**5,682**
Current Liabilities			
Short Term Borrowings	12,247	8,463	10,783
Trade Payables	48,975	41,579	33,499
Other Current Liabilities	12,742	10,751	15,892
Short Term Provisions	6,777	6,482	5,292
	80,741	**67,275**	**65,466**
Total	**305,357**	**267,342**	**223,022**

			Rs (in million)
	As at 31.03.2014	As at 31.03.2013	As at 31.03.2012
ASSETS			
Non-Current Assets			
Fixed Assets			
Tangible Assets	106,077	95,765	73,108
Intangible Assets	1,827	2,227	2,099
Capital Work in Progress	26,214	19,409	9,419
	134,118	**117,401**	**84,626**
Non-Current Investments	13,048	18,735	13,933
Long Term Loans and Advances	16,384	12,800	13,410
Other Non-Current Assets	90	8,946	263
	163,640	**157,882**	**112,232**
Current Assets			
Current Investments	88,131	52,048	47,541
Inventories	17,059	18,407	17,965
Trade Receivables	14,137	14,699	9,376
Cash and Bank Balances	6,297	7,750	24,361
Short Term Loans and Advances	12,511	11,153	7,783
Other Current Assets	3,582	5,403	3,764
	141,717	**109,460**	**110,790**
Total	**305,357**	**267,342**	**223,022**

Cash Flow Statement of Maruti Suzuki

			Rs (in million)
	For the year ended 31.03.2014	For the year ended 31.03.2013	For the year ended 31.03.2012
A. CASH FLOW FROM OPERATING ACTIVITIES:			
Net Profit before Tax	**36,585**	**29,910**	**21,462**
Adjustments for:			
Depreciation and amortisation	20,844	18,612	11,384
Finance cost	1,759	1,898	552
Interest income	(2,269)	(3,134)	(4,036)
Dividend income	(545)	(417)	(699)
Net loss on sale / discarding of fixed assets	149	331	157
Profit on sale of investments (Net)	(4,503)	(4,101)	(2,442)
Provisions no longer required written back	(912)	(472)	(1,091)
Provision for doubtful advances	1	63	-
Unrealised foreign exchange (gain)/ loss	(1,315)	1,425	556
Operating Profit before Working Capital changes	**49,794**	**44,115**	**25,843**
Adjustments for changes in Working Capital:			
- Increase/(Decrease) in Trade Payables	7,396	6,305	7,416
- Increase/(Decrease) in Short Term Provisions	226	268	254
- Increase/(Decrease) in Long Term Provisions	(279)	524	1,195
- Increase/(Decrease) in Other Current Liabilities	1,213	457	2,000
- Increase/(Decrease) in Other Long Term Liabilities	13	70	7
- (Increase)/Decrease in Trade Receivables	562	(4,155)	(1,131)
- (Increase)/Decrease in Inventories	1,348	3,485	(3,815)
- (Increase)/Decrease in Long Term Loans and Advances	(4,060)	1,608	(863)
- (Increase)/Decrease in Short Term Loans and Advances	(1,358)	(2,215)	(947)
- (Increase)/Decrease in Other Current Assets	2,196	(1,930)	(1,970)
- (Increase)/Decrease in Other Non Current Assets	304	(188)	119
Cash generated from Operating Activities	**57,355**	**48,344**	**28,108**
- Taxes (Paid) (Net of Tax Deducted at Source)	(8,320)	(5,333)	(2,509)
Net Cash from Operating Activities	**49,035**	**43,011**	**25,599**

Rs (in million)

	For the year ended 31.03.2014	For the year ended 31.03.2013	For the year ended 31.03.2012
B. CASH FLOW FROM INVESTING ACTIVITIES:			
Purchase of Fixed Assets	(34,984)	(37,767)	(29,967)
Sale of Fixed Assets	57	449	67
Sale of Investments	103,350	118,332	159,780
Purchase of Investments	(129,243)	(127,492)	(167,598)
Investments in Deposits with Banks	(9,000)	(15,000)	(22,600)
Maturities of Deposits with Banks	18,400	22,600	24,130
Interest Received	1,946	3,551	4,261
Dividend Received	545	417	699
Net Cash from Investing Activities	**(48,929)**	**(34,910)**	**(30,958)**
C. CASH FLOW FROM FINANCING ACTIVITIES:			
Proceeds from Short Term borrowings	12,247	8463	10,783
Repayment of Short Term borrowings	(8,463)	(10,783)	(312)
Proceeds from Long Term borrowings	-	1,688	-
Repayment of Long Term borrowings	-	(4,510)	(1,362)
Interest Paid	(1,615)	(2,003)	(426)
Dividend Paid	(2,417)	(2,167)	(2,167)
Corporate Dividend Tax Paid	(411)	(351)	(351)
Net Cash from Financing Activities	**(659)**	**(9,663)**	**6,165**
Net Increase/(Decrease) in Cash & Cash Equivalents	**(553)**	**(1,562)**	**806**
Cash and Cash Equivalents as at 1st April (Opening Balance)	**1250**	**1,761**	**955**
Cash and cash equivalents as at 1st April 2012 [acquired pursuant to a scheme of amalgamation]	-	1051	-
Cash and Cash Equivalents as at 31st March (Closing Balance)	**697**	**1250**	**1,761**
Cash and Cash Equivalents comprise	697	1250	1,761
Cash & Cheques in Hand	548	1,031	696
Balance with Banks	149	219	65
Balance with Scheduled Banks in Deposit Accounts	-	-	1,000

Annexure II

Financial Statements of M&M

Profit and Loss Statement of Mahindra & Mahindra

Rs (in crores)

	For the year ended 31.03.2014	For the year ended 31.03.2013	For the year ended 31.03.2012
REVENUE FROM OPERATIONS			
Gross Sale of Products	42,575.04	42,874.61	33,893.02
Less: Excise Duty	2,611.68	2,971.49	2,500.99
Net Sale of Products	39,963.36	39,903.12	31,392.03
Other Operating Revenue	545.14	538.04	455.16
	40,508.50	**40,441.16**	**31,847.19**
Other Income	717.99	549.17	472.12
Total Revenue	**41,226.49**	**40,990.33**	**32,319.31**
EXPENSES			
Cost of Material Consumed	21,630.08	20,749.87	18,804.52
Purchase of Stock-in-Trade	8,076.92	9,752.68	5,292.58
Change in Inventories of Finished Goods, Work-in-Progress and Stock-in-Trade	(274.67)	(78.03)	(597.33)
Employees Benefit Expenses	2,163.72	1,866.45	1,701.78
Finance Costs	259.22	191.19	162.75
Depreciation and Amortisation Expense	863.34	710.81	576.14
Other Expenses	4,294.28	3,524.01	2,954.78
Less: Cost of Manufactured Products Capitalised	103.04	83.12	73.53
Total Expenses	**36,909.85**	**36,633.86**	**28,821.69**
Profit before Exceptional Item and Tax	**4,316.64**	**4,356.47**	**3,497.62**
Add: Exceptional Item	52.79	90.62	108.27
Profit before Tax	**4,369.43**	**4,447.09**	**3,605.89**
Less : Tax Expense - Current Tax	837.95	933.21	703.47
- MAT Credit Availed	488.15	-	165.23
- Deferred Tax	(261.28)	(161.06)	(188.76)
Profit for the Year	**3,758.35**	**3,352.82**	**2,878.89**
Basic Earnings Per Share of Rs. 5 each	**63.67**	**56.85**	**48.97**
Diluted Earnings Per Share of Rs. 5 each	**61.07**	**54.61**	**46.89**

Balance Sheet of Mahindra & Mahindra

Rs (in crores)

	As at 31.03.2014	As at 31.03.2013	As at 31.03.2012
EQUITY AND LIABILITIES			
Shareholders' Funds			
Share Capital	295.16	295.16	294.52
Reserves and Surplus	16,496.03	14,363.76	11,810.17
	16,791.19	**14,658.92**	**12,104.69**
Non-Current Liabilities			
Long Term Borrowings	3,744.42	3,172.44	3,173.83
Deferred Tax Liabilities (Net)	889.65	614.85	527.13
Other Long Term Liabilities	586.27	415.40	274.77
Long Term Provisions	510.33	441.59	363.49
	5,730.67	**4,644.28**	**4,339.22**
Current Liabilities			
Short Term Borrowings	0.74	54.63	0.39
Trade Payables	6,068.80	5,579.71	4,736.35
Other Current Liabilities	1,133.56	1,052.17	1,226.70
Short Term Provisions	1,563.69	1,463.88	1,362.61
	8,766.79	**8,150.39**	**7,326.05**
Total	**31,288.65**	**27,453.59**	**23,769.96**

			Rs (in crores)
	As at 31.03.2014	As at 31.03.2013	As at 31.03.2012
ASSETS			
Non-Current Assets			
Fixed Assets			
Tangible Assets	5,706.30	4,751.06	4,052.61
Intangible Assets	170.65	206.80	240.74
Capital Work in Progress	394.86	495.54	569.93
Intangible Assets under development	833.58	367.94	224.80
	7,105.39	**5,821.34**	**5,088.08**
Non-Current Investments	9,787.73	10,571.50	9,260.45
Long Term Loans and Advances	3,018.12	2,087.47	1,476.68
Other Non-Current Assets	88.49	29.85	36.45
	19,999.73	**18,510.16**	**15,861.66**
Current Assets			
Current Investments	1,592.12	1,261.96	1,036.90
Inventories	2,803.63	2,419.77	2,358.39
Trade Receivables	2,509.84	2,208.35	1,928.53
Cash and Bank Balances	2,950.39	1,781.41	1,188.43
Short Term Loans and Advances	945.83	763.40	930.99
Other Current Assets	487.11	508.54	465.06
	11,288.92	**8,943.43**	**7,908.30**
Total	**31,288.65**	**27,453.59**	**23,769.96**

Cash Flow Statement of M&M

			Rs (in crores)
	For the year ended 31.03.2014	For the year ended 31.03.2013	For the year ended 31.03.2012
A. CASH FLOW FROM OPERATING ACTIVITIES:			
Net Profit before Exceptional Item and Tax	**4,316.64**	**4,356.47**	**3,497.62**
Adjustments for:			
Depreciation and amortisation	863.34	710.81	576.14
(Profit)/Loss on Exchange (Net)	(70.04)	(33.37)	(5.55)
Investment and Interest Income	(599.48)	(371.51)	(306.72)
Interest, Commitment and Finance Charges	259.22	191.19	162.75
Employee Stock Compensation Expense	56.14	67.06	97.97
Write off of Intangible Asset Under Development	7.19	17.04	-
(Profit)/Loss on sale of investments (Net)	0.69	(62.62)	(34.76)
Profit on fixed assets sold/scrapped/written off (Net)	(2.79)	(10.20)	(24.95)
Excess of cost over fair value of current investments (Net)	3.57	-	-
reversed (Net)	-	(1.84)	(0.05)
Operating Profit before Working Capital changes	**4,834.48**	**4,863.03**	**3,962.45**
Changes in :			
Trade and other receivables	(445.91)	(784.83)	(761.15)
Inventories	(270.18)	(62.74)	(652.36)
Trade and other payables	503.47	1,003.48	929.22
Cash generated from Operating Activities	**4,621.86**	**5,018.94**	**3,478.16**
- Taxes (Paid) (Net of Tax Deducted at Source)	(894.22)	(873.23)	(743.21)
Net Cash from Operating Activities	**3,727.64**	**4,145.71**	**2,734.95**

			Rs (in crores)
	For the year ended 31.03.2014	For the year ended 31.03.2013	For the year ended 31.03.2012
B. CASH FLOW FROM INVESTING ACTIVITIES:			
Purchase of Fixed Assets	(1,704.30)	(1,435.62)	(1,374.69)
Sale of Fixed Assets	26.71	46.32	34.27
Purchase of long term investments – Subsidiary	(1,411.65)	(1,172.17)	(857.48)
Purchase of other long term investments	(4.22)	(4.08)	(3.06)
Purchase of current investments	(58,102.41)	(40,593.17)	(21,411.33)
Sale/Redemption of long term investments – Subsidiaries	1,165.02	-	-
Sale of long term investments – Associates	10.02	2.53	23.37
Sale of current investments	57,837.74	40,484.34	21,184.20
Interest received	228.46	142.69	108.18
Dividends received	298.33	182.53	162.10
Bank Deposits placed	(1,730.75)	(724.18)	(90.60)
Bank Deposits matured	1,121.27	160.56	142.00
Increase in Earmarked & Margin account	(1.45)	(1.71)	(0.19)
Inter corporate deposits given	(1,146.09)	(936.23)	(1,035.10)
Inter corporate deposits refunded	956.85	860.22	1,233.00
Loan given	(112.7)	-	-
Repayment of loan given	55.75	-	-
Exceptional Item :			
Sale of long term investment	106.34	92.02	-
Net Cash from Investing Activities	**(2,407.08)**	**(2,895.95)**	**(1,885.33)**

			Rs (in crores)
	For the year ended 31.03.2014	For the year ended 31.03.2013	For the year ended 31.03.2012
C. CASH FLOW FROM FINANCING ACTIVITIES:			
Proceeds from issue of Share Capital (including Securities Premium)	183.90	-	-
Proceeds from borrowings	620.40	227.48	900.97
Repayments of borrowings	(473.99)	(380.73)	(249.72)
Net increase/(decrease) in Cash Credit Facilities	0.05	(0.17)	(7.05)
Dividends paid	(893.51)	(866.97)	(800.78)
Interest, commitment and finance charges paid	(260.78)	(201.50)	(149.57)
Net Cash from Financing Activities	**(823.93)**	**(1,221.89)**	**(306.15)**
Net Increase/(Decrease) in Cash & Cash Equivalents	**496.63**	**27.87**	**543.47**
Cash and Cash Equivalents as at 1st April (Opening Balance)	**1,163.96**	**1,136.11**	**510.84**
Cash and Cash Equivalents Received/(Given) pursuant to the scheme of arrangement/business transfer	45.02	(0.02)	81.80
Cash and Cash Equivalents as at 31st March (Closing Balance)	**1,705.61**	**1,163.96**	**1,136.11**

Indian Hotel Sector

The Indian hotel industry has emerged as one of the key drivers of growth of the services sector in India. The fortunes of the hospitality industry have always been linked with the tourism industry, and tourism is the foremost demand driver of the industry.

The Indian hotel industry is highly fragmented with a large number of small and unorganized players (standalone hotels) accounting for a lion's share of the industry. The major players in the organized segment

include the Indian Hotels Company Limited, Hotel Leela Venture Ltd, EIH Limited, ITC hotels, Asian Hotels (N), and ITDC. The industry is a significant source of foreign exchange earnings. The industry is highly labor intensive and the income-earning patterns are highly seasonal.

Figure 5.6 shows the structure of the hotel industry in India.

FY 2013 to 2014 has not been a good year for the Indian hospitality industry. Key performance metrics have shown negative growth in the industry in FY 2013 to 2014. Occupancies in Indian hotels in June 2013 showed a negative growth of 1.1 percent, compared with the same month previous year. Occupancy in Indian hotels was 51.4 percent in June. Similarly, average daily rate (ADR = Room rental per day) registered a negative growth of 2.6 percent at Rs. 5,375.59 and revenue per available room (RevPar = ADR * occupancy rate) at Rs. 2,762.65 registered a negative growth of 3.7 percent.

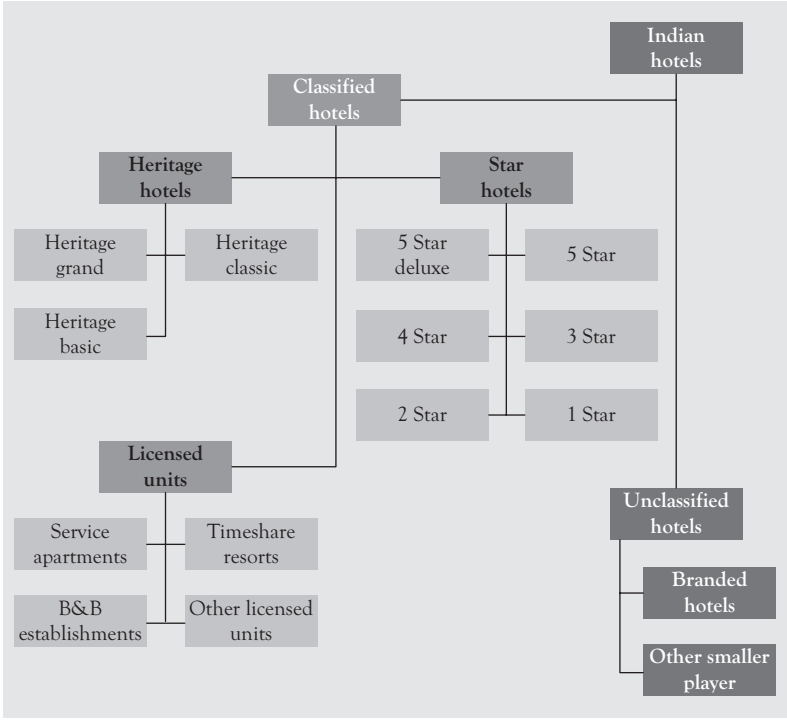


Figure 5.6 Indian hotel industry

Source: D&B Research.

The low growth in the industry is largely attributed to the poor economic and financial well-being of the market over the last couple of years, which have seen a below-par GDP growth. While India was a largely undersupplied market in terms of hotel rooms a few years back, the situation has almost reversed in the last couple of years. Most micromarkets in the country are facing an oversupply because demand is failing to keep pace. There has been a quantum jump in the classified hotel inventory in the last 10 years in the country, with half of the classified room inventory emerging in the last three to four years. This oversupply of hotel rooms is also a major cause of liquidity of hotels and negative working capital.

However, one positive thing that has happened is that the devaluation of rupee has helped to attract foreign tourists to India as a less expensive tourist destination. FTAs increased 3 percent to 7.20 lakhs in January 2014, compared to 2.6 percent growth at 6.99 lakhs recorded in January 2013. FTAs increased 4.1 percent to 68.48 lakhs in the calendar year 2013, as compared to 4.3 percent growth recorded in 2012 with the FTAs of 65.78 lakhs. FTAs have posted consistent growth for the fourth sequential year in 2013, after 3.1 percent decline in 2009.

The key performance metrics however seemed to improve slightly toward the last quarter of FY 2013 to 2014. As per the data compiled by STR Global, hotel room occupancy in India increased 3.2 percent to 64.2 percent, ADR declined 3.6 percent to Rs. 6,603.33, and RevPAR fell 0.6 percent to Rs. 4,240.55 in January 2014. Meanwhile, the Asia and Pacific region's occupancy increased 7.7 percent to 65.2 percent, ADR declined 6.3 percent to US$130.39, and RevPAR was up 1 percent to US$85. The recovery in global economic growth is a positive sign for the tourism industry.

The foreign exchange earnings from tourism also increased 7 percent to Rs. 11,197 crores in January 2014, against 21.4 percent increase recorded at Rs. 10,465 crores in January 2013. The growth of FEEs during January 2014 was mainly driven by 14.1 percent weakening of the Indian rupee to Rs. 62.03 per dollar on a yoy basis.

Table 5.4 shows the industry standing of some of the major corporate players in the hotel sector.

Table 5.4 Market standing of key hotels in India

Hotel chain	Year-end sales in FY 2013–14 (Rs. cr.)	Market capitalization (Rs. cr.)
Asian Hotels (N)	227.76	277.94
EIH	1,231.09	5,944.12
Hotel Leela Venture	718.44	1,126.74
ITDC	433.99	1,276.26
IHCL	1,929.51	7,957.91

Indian Hotels Company Limited

The IHCL and its subsidiaries are collectively known as Taj Hotels Resorts and Palaces and is recognized as one of Asia's largest and finest hotel company. Incorporated by the founder of the Tata Group, Mr. Jamsetji N. Tata, the company opened its first property, The Taj Mahal Palace Hotel, Bombay, in 1903.

Taj Hotels Resorts and Palaces comprises 93 hotels in 55 locations across India with an additional 16 international hotels in the Maldives, Malaysia, Australia, the United Kingdom, the United States, Bhutan, Sri Lanka, Africa, and the Middle East.

East India Hotels Limited

EIH Limited, under the aegis of The Oberoi Group, operates hotels and cruisers in five countries under the luxury "Oberoi" and five-star "Trident" brands. The group is also engaged in flight catering, airport restaurants, travel and tour services, car rentals, project management, and corporate air charters. The last decade has witnessed the debut of new luxury Oberoi leisure hotels in India and abroad.

Operating Efficiency problem

Most of the companies in the hotel sector operate with negative working capital. Although, negative working capital is not always a bad indicator of a company's operating abilities because companies with low debt and

longer payment period are able to generate cash from their sales even before they need to pay to their creditors. Negative working capital can be a cause of concern for highly debt-oriented companies with low cash and bank balances. In the case of hotel industries, as there is an oversupply of classified inventory in comparison to the demand, a lot of cash remains tied up in these inventories. Moreover, due to the high debt, most of the cash generated is used up in paying the interest cost of these debts, resulting in a low cash reserve for these companies, which creates difficulty in meeting daily operational expenses of the business.

Efficiency Analysis of Taj and Oberoi

As we can see from Table 5.5 and Figure 5.7, the working capital of Taj is highly negative as compared to that of Oberoi and it is also showing a downward trend. To further understand the implications of negative working capital, let us further move deeper by studying the various efficiency ratios.

Thus, it is seen from Tables 5.6 and 5.7 that Taj takes approximately half the time than Oberoi takes to collect cash from sales.

Table 5.5 Analysis of working capital of hotel sector

Company	March 2012	March 2013	March 2014
Taj	−8,933.1	−4,677.6	−8,374.1
Oberoi	−961.42	−2,246.62	−1,881.91

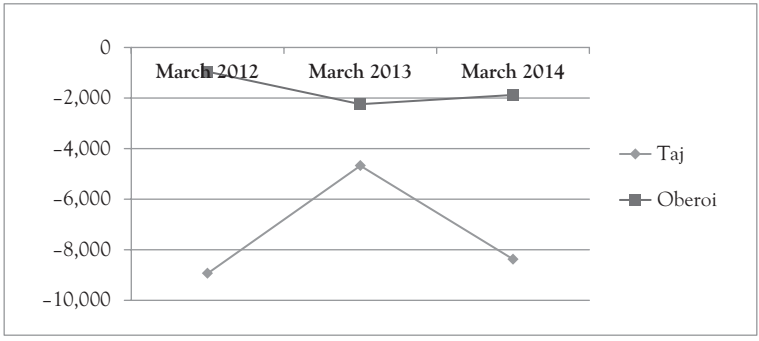


Figure 5.7 Working capital trend of hotel sector

In this case, Taj takes longer time to sell off its inventories as compared to Oberoi. The high inventory holding period of both is also attributed to the large oversupply of classified inventory as compared to the demand for the same (Tables 5.8 and 5.9).

Thus, Taj takes a considerably higher time to pay off its suppliers than Oberoi, which is a good indicator as Taj will have greater cash that can be used in additional profit-generating activities (Tables 5.10 and 5.11).

Table 5.6 DTR of hotel sector

Company	March 2012	March 2013	March 2014
Taj	14.49	14.98	15.51
Oberoi	7.91	6.53	7.23

Table 5.7 Average collection period of hotel sector

Company	March 2012	March 2013	March 2014
Taj	24	24	23
Oberoi	46	56	50

Table 5.8 Inventory turnover ratio of hotel sector

Company	March 2012	March 2013	March 2014
Taj	3.84	4.28	4.40
Oberoi	4.68	4.94	4.74

Table 5.9 Average inventory holding period of hotel sector

Company	March 2012	March 2013	March 2014
Taj	95	85	83
Oberoi	78	74	77

Table 5.10 CTR of hotel sector

Company	March 2012	March 2013	March 2014
Taj	1.03	1.08	1.02
Oberoi	2.7	2.50	2.53

Table 5.11 Average payment period of hotel sector

Company	March 2012	March 2013	March 2014
Taj	355	339	358
Oberoi	134	146	144

Table 5.12 Cash conversion cycle of hotel sector

Company	March 2012	March 2013	March 2014
Taj	−236	−230	−252
Oberoi	−10	−16	−17

Let us understand the cumulative effect of the three periods through the CCC.

CCC = ACP + AHP – APP (in days)

A negative CCC for both Taj and Oberoi indicates that both are able to generate cash from sales even before paying off their suppliers, which is a good thing because the company can use cash to invest in other activities and generate additional profit before paying off its suppliers (Table 5.12).

However, Taj is managing its working capital in a much better way than Oberoi as its payment period is several times high than that of Oberoi and so Taj is in a much better position to use this cash generated from sales in paying off its other current liabilities and will have more time to use the cash generated from sales to invest in profit-making activities, and thereby make much more additional profits before paying off its suppliers.

Future Scenario of Hospitality Sector in India

India is projected to be number one in growth globally in the wellness tourism sector in the next five years, clocking over 20 percent gains annually through 2017, according to a study conducted by SRI International.

Due to the rapid growth in tourism, the hotel industry is also booming. Many international players like Le Meridien and Accord are heading toward Indian markets to expand their business. With government's full support in developing infrastructure, increase in demand, open sky policies, and increased competition, the hospitality industry is getting consolidated and has many more opportunities to grow further.

Also, in the 2014 budget, the government's decision to introduce the electronic visa facility (e-Visa) at nine airports for 180 nations will give further boost to FTAs in India, thereby leading to a substantial increase in foreign exchange earnings from the hospitality sector in India. Moreover, the hotel sector is also working toward a lean management structure whereby multiple departments will be allotted to top-level management, whereby one person may be allotted department of operations as well as the department of HRM. This will help in reducing payroll at top management and thereby increase the bottom line of the hotel sector companies.

Annexure III

Financial Statements of Taj

Balance Sheet of Taj

Balance sheet for Taj as on:	March 31, 2014 (in millions)	March 31, 2013 (in millions)	March 31, 2012 (in millions)
Equity and liabilities			
Shareholders' funds			
Share capital	80.75	80.75	75.95
Reserves and surplus	2,613.09	3,226.90	3,167.49
Money received against warrants		-	124.37
	2,693.84	3,307.65	3,367.81
Noncurrent liabilities			
Long-term borrowings	2,153.51	2,268.13	2,039.94
Deferred tax liabilities (net)	107.16	95.5	95.93
Other long-term liabilities	77.35	74.75	83.43
Long-term provisions	581.08	674.42	584.64
		3,112.80	2,803.94
Current liabilities			
Short-term borrowings	161.59	193.54	122.57
Trade payables	173.48	152.47	148.86

(*Continued*)

(Continued)

Balance sheet for Taj as on:	March 31, 2014 (in millions)	March 31, 2013 (in millions)	March 31, 2012 (in millions)
Other current liabilities	633.1	343.01	789.58
Short-term provisions	185.26	116.75	131.22
	1,153.43	805.77	1,192.23
Total equities and liabilities	**6,766.37**	**7,226.22**	**7,363.98**
Assets			
Noncurrent assets			
Fixed assets			
(1) Tangible assets	1,677.65	1,745.30	1,826.55
(2) Intangible assets	19.76	11.16	12.2
(3) Capital work-in-progress	430.46	307.5	225.43
Intangible assets under development	1.42	1.73	4.18
	2,129.29	2,065.69	2,068.36
Noncurrent investments	2,761.64	3,369.14	3,622.19
Long-term loans and advances	1,554.72	1,441.02	1,346.93
Other noncurrent assets	4.7	12.36	27.58
Total noncurrent assets	6,450.35	6,888.21	7,065.06
Current assets			
Inventories	40.18	38.37	39.79
Trade receivables	124.41	125.22	124.83
Cash and bank balances	43.17	48.96	22.93
Short-term loans and advances	67.67	92.69	71.87
Other current assets	40.59	32.77	39.5
Total current assets	316.02	338.01	298.92
Total assets	**6,766.37**	**7,226.22**	**7,363.98**

Statement of Profit and Loss for Taj

Statement of profit and loss for the year ended:	March 31, 2014 (in millions)	March 31, 2013 (in millions)	March 31, 2012 (in millions)
Revenue			
Rooms, restaurants, banquets, and other operating Income	1,929.51	1,875.86	1,808.73
Other income	47.82	48.93	55.99
Total	**1,977.33**	**1,924.79**	**1,864.72**
Expenses			
Food and beverages consumed	176.83	164.08	152.87
Employee benefit expense and payment to contractors	472.53	476.73	471.38
Finance costs	98.82	105.2	111.99
Depreciation and amortization	122.26	125.02	113.9
Other operating and general expenses	890.69	830.64	778.55
Total	**1,761.13**	**1,701.67**	**1,628.69**
Profit before tax and exceptional items	216.2	223.12	236.03
Exceptional items	−737.1	−432.91	−6.11
Profit before tax	−520.9	−209.79	229.92
Tax expenses			
Current tax	58.06	52.61	50.04
Deferred tax	16.37	25.43	68.15
Minimum alternate tax credit	—	—	−33.62
Short provision of tax of earlier years (net)	−4.84	−11.22	—
Total tax	69.59	66.82	84.57
Profit after tax	**−590.49**	**−276.61**	**145.35**
Earnings per share			
Basic and diluted - (Rs.)	−590.49	−3.47	1.91

Annexure IV

Financial Statements of Oberoi

Balance sheet of Oberoi

Balance sheet of Oberoi as on:	March 31, 2014 Rupees (million)	March 31, 2013 Rupees (million)	March 31, 2012 Rupees (million)
Equity and liabilities			
Shareholders' funds			
Share capital	1,143.14	1,143.14	1,143.14
Reserves and surplus	25,332.72	25,106.10	25,208.36
Net worth	**26,475.86**	**26,249.24**	**26,351.50**
Noncurrent liabilities			
Long-term borrowings	1,035.17	1,442.82	1,903.21
Deferred tax liabilities—net	1,924.56	1,738.87	1,631.70
Other long-term liabilities	20.71	32.54	72.59
Long term provisions	150.82	128.64	124.37
	3,131.26	**3,342.87**	**3,731.87**
Current liabilities			
Short-term borrowings	1,364.41	1,953.96	100.94
Trade payables	744.79	675.8	568.73
Other current liabilities	1,688.83	1,569.56	1,782.94
Short-term provisions	722.28	617.29	756.94
	4,520.31	**4,816.61**	**3,209.55**
Total	**34,127.43**	**34,408.72**	**33,292.92**
Assets			
Noncurrent assets			
Fixed assets			
Tangible assets	20,676.46	21,162.57	20,150.50
Intangible assets	4.3	4.18	1.84
Capital work in progress	456.84	399.8	1,594.65
Noncurrent investments	7,039.50	7,057.30	6,163.57
Long-term loans and advances	3,311.93	3,214.88	3,134.23

Other noncurrent assets			
	31,489.03	**31,838.73**	**31,044.79**
Current assets			
Current investments			116.9
Inventories	397.5	341.15	331.21
Trade receivables	1,701.24	1,735.63	1,411.74
Cash and bank balances	164.6	203.64	119.58
Short-term loans and advances	370.9	251.95	257.33
Other current assets	4.16	37.62	11.37
	2,638.40	**2,569.99**	**2,248.13**
Total	**34,127.43**	**34,408.72**	**33,292.92**

Statement of profit and loss for Oberoi

Statement of profit and loss of Oberoi as on	**March 31, 2014** **Rupees (million)**	**March 31, 2013** **Rupees (million)**	**March 31, 2012** **Rupees (million)**
Long-term borrowings	1,035.17	1,442.82	1,903.21
Net worth	**26,475.86**	**26,249.24**	**26,351.50**
Income			
Revenue from operations	12,305.40	11,334.98	11,166.75
Other income	484.01	435.09	455.36
Total revenue	**12,789.41**	**11,770.07**	**11,622.11**
Expenses			
Consumption of provisions, wines, and others (COGS)	1,886.04	1,686.31	1,548.72
Employee benefit expenses	3,525.85	3,289.34	3,180.00
Finance costs	406.5	450.13	544.11
Depreciation and amortization expense	991.75	1,007.48	931.07
Other expenses	4,584.85	4,350.89	3,979.69
Total expenses	**11,394.99**	**10,784.15**	**10,183.59**

(*Continued*)

(Continued)

Statement of profit and loss of Oberoi as on	March 31, 2014 Rupees (million)	March 31, 2013 Rupees (million)	March 31, 2012 Rupees (million)
Profit before exceptional, extraordinary items and tax	1,394.42	985.92	1,438.52
Exceptional items—profit (or loss)	118.44	−150.66	111.46
Profit before extraordinary items and tax	1,512.86	835.26	1,549.98
Extraordinary items—(loss)	−65.04	−116.96	
Profit before tax	**1,447.82**	**718.3**	**1,549.98**
Tax			
Current tax	311.72	101.49	193.13
Deferred tax	185.69	107.17	132.66
Profit for the period	**950.41**	**509.64**	**1,224.19**
Basic and diluted earning per share			
Face value Rs. 2 (in Rs.)			
Before extraordinary items	1.78	1.1	2.14
After extraordinary items	1.66	0.89	2.14

Indian Telecom Sector

Here, we analyze the operating efficiency of two leading players in the sector, Bharti Airtel and Idea Cellular. ITR is not relevant in the sector and therefore not analyzed.

Telecommunications was first introduced in India by the British government in 1851. The first operational land lines were set up near Kolkata (then Calcutta), though services were formally introduced much later in 1881. After India attained independence, all telecommunication systems in place were nationalized to form the posts, telephone, and telegraph. This body was controlled by the Ministry of Communication, thus placing the sector under the direct control of the Government of India.

In 1984, the private sector was first allowed to invest in the sector, albeit only to the extent of manufacturing equipment. In 1985, the government separated the Department of Post and Telegraph to set up the Department of Telecommunications. The monopoly model of the government continued till 1991, when the economy underwent liberalization. Post-1991, however, the Indian telecom market has become one of the most liberalized market in the world with private participation in almost all of its segments.

The government further set up the Telecom Regulatory Authority of India in 1997 to control and regulate the rapidly increasing private sector presence in the market. The New Telecom Policy (NTP-99), on the other hand, provided a much needed boost to the growth of this industry.

The evolution of the telecom sector in India may be divided into three phases:

- Phase I—Preliberalization Era (1980 to 1989)
- Phase II—Postliberalization Era (1990 to 1999)
- Phase III—Post-2000

Key Facts

The number of telecom subscribers in India till March 2014 is 933.01 million, which includes 555.28 million urban subscribers and 377.73 million rural subscribers. Mobile subscribers accounting for 96.7 percent of total subscriber base are responsible for this phenomenal growth in this telecom sector.

The main service providers are as follows:

- BSNL
- Bharti Airtel
- Vodafone
- Idea Cellular
- Reliance

Bharti Airtel

Year of Incorporation:	1995
Headquarters:	New Delhi
Company status:	Public parent
Geographic presence:	20 countries across Asia and Africa
Key competitors:	Vodafone, Idea Cellular, Reliance Communications, BSNL

Bharti Airtel Ltd. is one of the largest telecommunication operators in India. It provides services to individuals and businesses. The company has 117 direct and indirect subsidiaries as of March 31, 2014. Its operations are broadly categorized under five segments: Mobile Services, Telemedia Services, Digital TV, Tower Infrastructure Services, and finally, the Airtel Business.

The Mobile Services division provides voice and data telecom services through 2G, 3G, and 4G wireless technologies, and intracity fiber networks and mobile commerce services in India. The Telemedia Services segment caters to voice and data communications based on fixed network and broadband technology. The offerings include high-speed broadband; local, national, and international long-distance voice connectivity; and fixed-line voice, MPLS, mobile, data, and other connectivity solutions.

More than 400 channels and services are offered under the company's Digital TV segment, which caters to the digital broadcasting services under the direct-to-home platform. The Tower Infrastructure Services segment is involved in setting up, operating, and maintaining wireless communication towers. The Airtel Business segment provides telecom services that include Internet, MPLS-VPN, domestic and international private leased circuits, satellite services, audio and video conferencing, data center services, managed network services, corporate value-added services, EPBX, Centrex, and contact center solutions to corporations.

Five year summary and trend of Airtel is provided in Table 5.13 and Figure 5.8.

Table 5.13 Five-year summary (FYE: March 31) of Airtel

	2010	2011	2012	2013	2014	CAGR (%)
Net sales	35,609.50	38,017.70	41,603.80	45,350.90	49,918.50	8.81
Operating profit	13,925.20	13,661.50	14,268.40	14,933.80	16,945.10	5.03
Net profit	9,426.20	7,716.90	5,730.00	5,096.30	6,600.20	−8.52
Total assets	59,417.30	77,916.30	88,054.10	87,883.20	98,204.10	13.38
No. of subscribers (000s)	137,013	220,878	251,646	271,227	295,948	21.23

Note: All figures in Rs. crores unless otherwise mentioned.

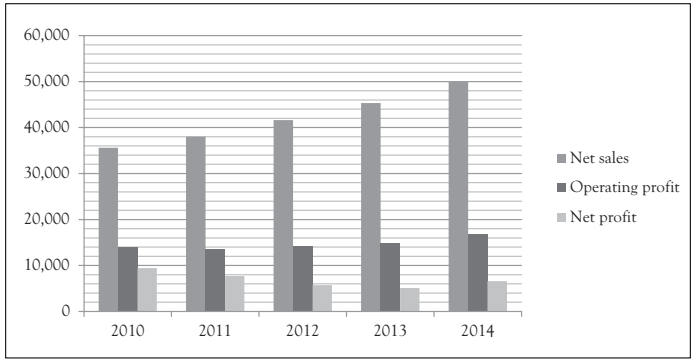


Figure 5.8 Five year trend of Airtel

Idea Cellular

Year of incorporation:	1995 (as Birla Communications Limited)
Headquarters:	Mumbai
Company status:	Operates as a subsidiary of the Aditya Birla Group
Geographic presence:	Pan-India
Key competitors:	Airtel, Vodafone, Reliance Communications, BSNL

The company operates as an integrated GSM operator offering 2G and 3G services, roaming arrangements, ILD and other services, mobile banking, and a range of mobile broadband devices, including dongles.

As of March 2014, it was India's third largest mobile operator by subscriber base. It has five subsidiaries through which it drives operations.

The company operates through these reported segments: Mobility Services, ILD, and Passive Infrastructure.

1. Mobility Services: providing GSM-based mobile and related telephony services
2. ILD: providing ILD services
3. PI: providing PI services

The efficiency of Airtel is presented in Tables 5.14 to 5.18 and Figures 5.9 to 5.13.

Table 5.14 DTR of Airtel

Airtel	2011–12	2012–13	2013–14
DTR	19	20	23
Sales (in Rs. cr.)	41,603.80	45,350.90	49,918.50
Debtors (in Rs. cr.)	2,134.50	2,246.80	2,165.50

Idea	2011–12	2012–13	2013–14
DTR	23.87	24.07	33.92
Sales (in Rs. cr.)	19,275.32	22,043.44	26,110.40
Debtors (in Rs. cr.)	807.55	915.68	769.69

The industry average of DTR is as follows:

Industry average	10.61	10.74	8.11

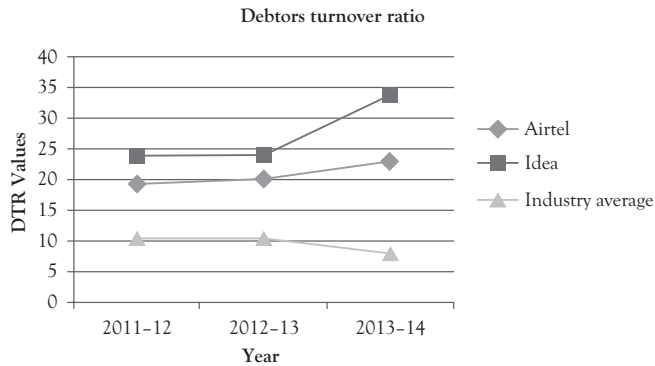


Figure 5.9 Debtors turnover trend of Airtel

DTR of both companies is higher than the industry average, which indicates that both companies operate on a cash basis or that its extension of credit and collection of accounts receivables are efficient.

An increase in DTR means:

- Collection efforts have improved.
- Sales have improved.
- Trade receivables have decreased.

Table 5.15 ACP of Airtel

Airtel	2011–12	2012–13	2013–14
ACP (days)	**18**	**18**	**15**
Days	365.00	365.00	365.00
DTR	19.49	20.18	23.05

Idea	2011–12	2012–13	2013–14
ACP (days)	**15**	**15**	**10**
Days	365.00	365.00	365.00
DTR	23.87	24.07	33.92

The industry average of ACP is as follows:

Industry average (days)	34	34	45

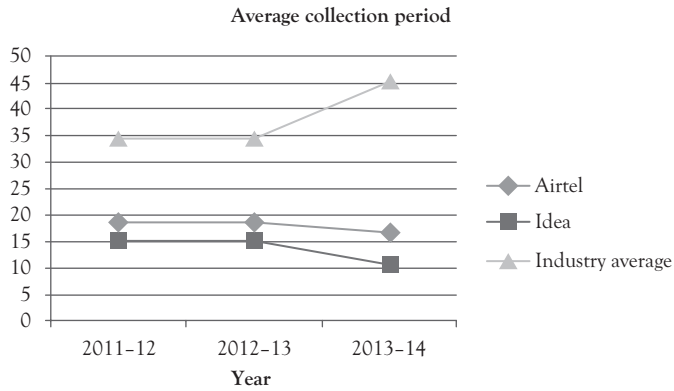


Figure 5.10 Average collection trend of Airtel

Since accounts receivables are often posted as collateral for loans, the quality of receivables is important, and hence DTR is an important indicator.

ACP of both the companies is lower than the industry average, which indicates that it does not take both companies very long to turn their receivables into cash.

Due to the size of transactions, most businesses allow customers to purchase goods or services via credit, but one of the problems with extending credit is not knowing when the customer will make cash payments.

The CTR of Airtel has dipped in the last year by a greater percentage than that of Idea—good sign for Airtel since the amount of creditors has increased.

Table 5.16 CTR of Airtel

Airtel	2011–12	2012–13	2013–14
CTR	**1.04**	**2.57**	**2.18**
Purchases (in Rs. cr.)	4,712.50	13,198.30	13,670.80
Creditors (in Rs. cr.)	4,512.10	5,137.20	6,266.30

Idea	2011–12	2012–13	2013–14
CTR	**0.70**	**2.10**	**2.05**
Purchases (in Rs. cr.)	1,462.97	7,260.62	7,790.33
Creditors (in Rs. cr.)	2,096.49	3,461.85	3,793.04

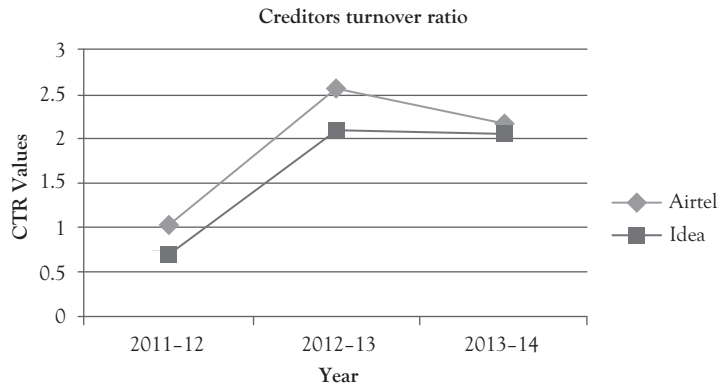


Figure 5.11 Creditors turnover trend of Airtel

Table 5.17 Average payment trend of Airtel

Airtel	2011–12	2012–13	2013–14
APP (days)	**350**	**143**	**168**
Days	365.00	365.00	365.00
CTR	1.04	2.57	2.18

Idea	2011–12	2012–13	2013–14
APP (days)	**524**	**175**	**178**
Days	365.00	365.00	365.00
CTR (Approximated)	0.70	2.10	2.05

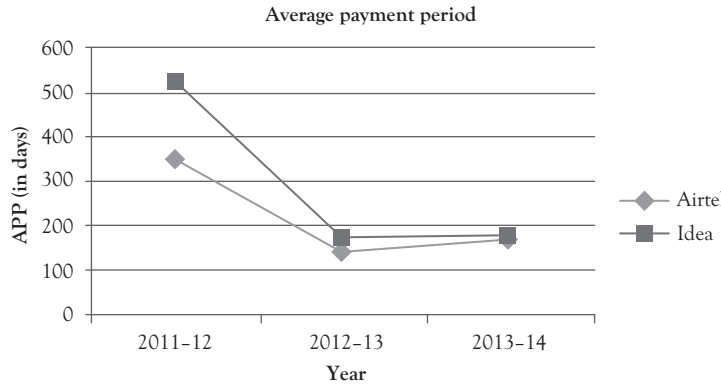


Figure 5.12 Average payment trend of Airtel

APP of both Airtel and Idea has decreased since 2011 to 2012 but the dip is starker in the case of Idea. A shorter payment period indicates prompt payments to creditors, that is, the company is not taking full advantage of the credit terms allowed by suppliers.

The FATR of both the companies is above the industry average for all the three years—indicating that both have less money tied up in fixed assets for each unit of sales. It also means that both Airtel and Idea have been able to better generate sales per unit of fixed assets as compared to other telecom companies.

Airtel is better at using its fixed assets as compared to Idea, although both have shown similar levels of improvement in the last one year. An

Table 5.18 FATR of Airtel

Airtel	2011–12	2012–13	2013–14
FATR	**1.03**	**1.05**	**1.25**
Sales (in Rs. cr.)	41,603.80	45,350.90	49,918.50
Net block (in Rs. cr.)	40,440.80	43,182.60	39,878.20

Idea	2011–12	2012–13	2013–14
FATR	**0.81**	**0.85**	**1.00**
Sales (in Rs. cr.)	19,275.32	22,043.44	26,110.40
Net block (in Rs. cr.)	23,743.26	25,938.55	26,024.12

The industry averages of FATR are as follows:

Industry average	0.35	0.35	0.24

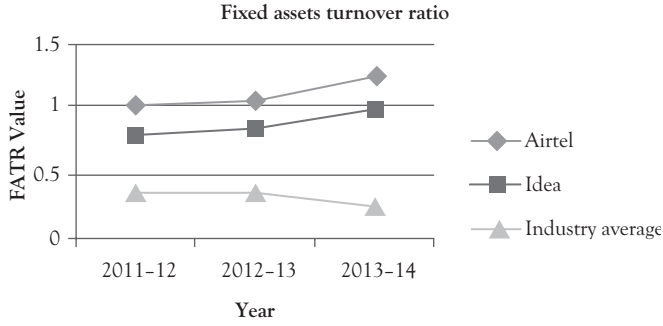


Figure 5.13 Fixed assets turnover trend of Airtel

important point to note however is that the fixed assets of Airtel have decreased while that of Idea has increased. So although both Airtel and Idea have shown similar levels of improvement, Idea is better off because FATR has improved despite increase in fixed assets.

Recommendations

We have looked at the operating efficiency ratios of two telecom giants Airtel and Idea. Airtel's growth has become saturated while Idea is considered to be still in a growing stage. Both companies have performed better than the industry average across all the various metrics.

However, there is still some scope for improvement, which is discussed in the following points:

- Airtel still has higher increase in sales as compared to Idea. But the gap has narrowed and this is primarily because of Idea's primary focus on rural markets.
- The greatest increase in rural market share was seen in the case of Vodafone followed by Idea. With the urban markets being saturated, sales can only increase through rural market penetration. If Airtel is to maintain the lead, it will have to bring in more rural customers in its foray.

PART IV

Liquidity Ratios

CHAPTER 6

Concept of Liquidity Ratios

The Present Chapter

This chapter discusses the concept of liquidity ratios.

Liquidity

Liquidity refers to the ability of a firm to meet its short-term debt obligations. It determines the sustainability of the firm. The better the liquidity of an organization, the higher the working capital soundness and higher the growth prospects.

Liquidity ratios measure whether a company will be able to comfortably continue as a going concern because a company which has trouble in meeting its short-term debt is at a higher risk of bankruptcy.

Liquidity Ratios

These ratios are as follows:

1. **Current ratio**: The current ratio measures a company's current assets against its current liabilities. It is the indicator of sufficiency of current assets to meet current liabilities as and when they arise.

   Implication: A higher ratio is better, implying that the firm has a higher amount of current assets when compared to current liabilities and should easily be able to pay off its short-term debt. On the other hand, a very high current ratio signifies idle current assets. Generally, an ideal current ratio is considered as 2:1.

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

Current assets include everything from inventory to cash and bank balances. Current liabilities include short-term debts, account payables, and so on.

2. **Quick or liquid ratio**: The quick ratio, also known as the acid-test ratio, is a liquidity ratio that is more refined and more stringent than the current ratio. Instead of using current assets in the numerator, the quick ratio uses a figure that focuses on the more liquid assets. An ideal liquid ratio is considered as 1:1.

   Implication: The main asset left out is inventory here, which can be hard to liquidate at market value in a timely fashion. The quick ratio is more conservative than the current ratio.

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

   Liquid assets include cash, short-term investments, and accounts receivable. They do not take into consideration the least liquid assets that are inventory and prepaid expenses.

3. **Super quick ratio**: The super quick ratio or cash ratio is the most conservative of the three liquidity ratios. As the name implies, this ratio is *simply the ratio of cash and cash equivalents compared to current liabilities.*

   Implication: This ratio looks only at assets that are ready cash or can be easily used to pay off short-term debt, and it does not consider receivables and inventory.

$$\textbf{Super quick ratio} = \frac{\text{Cash and bank balances}}{\text{Current liabilities}}$$

Super quick ratio shows the company's ability to pay off current liabilities on an immediate-need basis.

Box 6.1: Bird's eye view of liquidity ratios

All liquidity ratios are expressed in number of times.

CHAPTER 7

Corporate Examples of Liquidity Ratios

The Present Chapter

This chapter discusses the liquidity analysis of the *steel sector, fertilizer sector, cement sector*, and *IT sector* in India. In each sector, a comparative analysis of the liquidity ratios of the leading Indian companies has been done.

Indian Steel Sector

Steel is vital to the development of any modern economy and is considered to be the backbone of the human civilization. It is essential for all the construction activities and is the raw material for various other consumer goods and appliances. So the growth of steel industry is essential for a country.

The global steel production was 1,414 million tons in the calendar year 2010. India stands fifth in the world ranking for steel production. It was the fourth largest producer of crude steel in 2011 to 2012. After 2007, India has witnessed a huge rise in the demand for steel due to the economic development in the country. India produced 66.8 million tons of steel in 2010 to 2011, accounting for over 7 percent of the total steel produced globally. The industry offers employment to over 2 million people including direct and indirect workforce.

Tata Steel

Tata Steel is the second largest private sector steel company in India with an annual capacity of 9.7 million tons. It has its headquarters in Mumbai and it is a subsidiary of the Tata Group.

Tata Steel has manufacturing facilities in 26 countries, which include India and Australia among others. Tata Steel's largest plant is located in Jamshedpur, Jharkhand. The city of Jamshedpur is named after Jamsetji Tata, one of the prominent pioneers of the Tata Group.

Tata Steel acquired NatSteel in 2004 for ~$480 million in cash. In 2005, they acquired a Thai steel plant "Millennium" for $130 million. In 2007, they made a major acquisition of the UK steel manufacturer, Corus (ninth largest steelmaker in the world), which proved to be the largest international acquisition by any Indian company to date. This was the $7.6 billion deal that made TATA Steel the world's 11th largest steel-producing company in the world.

Jindal Steel and Power

Jindal Steel and Power (JSPL) is an Indian steel and energy company based in New Delhi. It was founded by O. P. Jindal in 1952. Currently, Naveen Jindal is its chairman. It is the third largest steel producer in India with an annual turnover of approximately US$3.56 billion. This company is part of the US$17 billion diversified Jindal Group. JSPL is involved in steel, oil and gas, mining, and infrastructure businesses.

JSPL itself has four subsidiaries, namely:

a. Jindal Power Limited
b. Jindal Steel Bolivia
c. JSPL Mauritius
d. Skyhigh Overseas

The company has around 7,000 employees, out of which only about 4 percent are women.

Liquidity Analysis

The liquidity analysis of the selected Indian steel companies is discussed as follows (Tables 7.1 to 7.3 and Figures 7.1 to 7.3).

Table 7.1 Liquidity ratios of Indian steel sector

	2012	2013	2014
Current ratio	1.68	1.51	1.37
Quick ratio	0.88	0.84	0.54
Cash ratio	0.30	0.17	0.05

Table 7.2 Liquidity ratios of Tata Steel

	2012	2013	2014
Current ratio	0.87	0.77	0.68
Quick ratio	0.54	0.42	0.33
Cash ratio	0.27	0.15	0.06

Table 7.3 Liquidity ratios of Jindal Steel

	2012	2013	2014
Current ratio	0.86	1.07	0.93
Quick ratio	0.57	0.74	0.65
Cash ratio	0.003	0.003	0.05

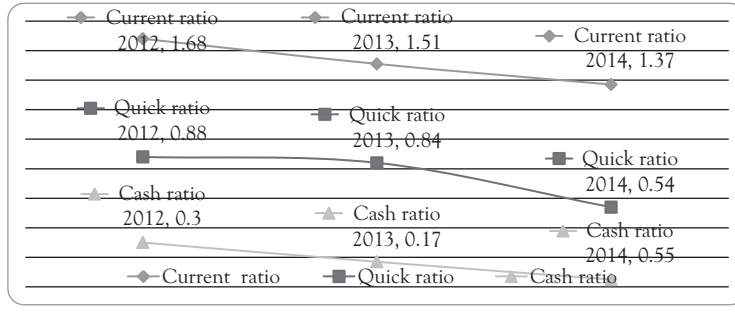


Figure 7.1 Liquidity trend of Indian steel sector

It can be observed that all the ratios reduced over a period of three years, and the industry average is lower than the optimal values; as in the case of manufacturing sector companies, the assets of the company are mainly in the form of fixed assets.

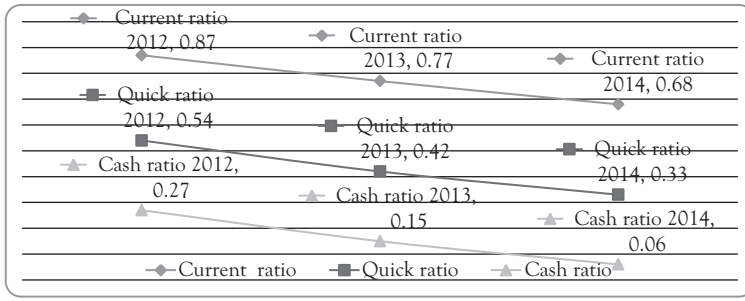


Figure 7.2 Liquidity trend of Tata steel

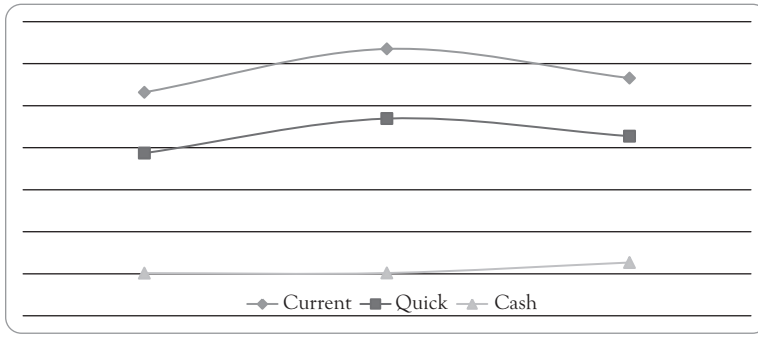


Figure 7.3 Liquidity trend of Jindal Steel

Analysis

- Over the three years the current liabilities have increased and the current assets, liquid assets, and cash, and bank balances have decreased due to which the current ratio, quick ratio, and cash ratio have decreased over the years.
- The increase in current liabilities is mainly due to increase in trade payables over the three years. The main reason may be that they have purchased on credit.
- The decrease in current assets is because of decrease in cash and bank balances, which may be because of the investments made by the company as can be seen from the CFS.

- Since the amount of investment outflow has increased (~200 percent) over the three years, the company is in a growing phase.

Analysis

- The current ratio increases by 23 percent from 2012 to 2013 due to a significant increase of 27.5 percent in current assets on account of an increase in trade receivables, short-term loans, and advances and inventories.
- It reduces by 12 percent in 2014 from the previous year due to a huge increase of 31 percent in current liabilities of short-term loans from banks and other loans, offsetting the lower increase of 14 percent in current assets.
- A 15 percent increase in cash ratio in 2012 over 2011 is due to a 19 percent increase in the cash and bank balances offsetting a minute raise of 3 percent in current liabilities.
- A massive increase of 1,480 percent in cash ratio in 2014 is due to a huge increase of 1,972 percent in cash and bank balances, essentially because of the following:
  - Net cash inflow from operating activities increased by almost 200 percent in 2014 from Rs. 1,021 crores in 2013 to Rs. 3,075 crores in 2014.
  - Increase in operating activities inflow was because of increase in accounts payable from Rs. 1,037 crores to Rs. 1,259 crores.
  - There was a 20 percent reduction in investment activities in 2014.
- An increase of 28 percent in quick ratio is due to increase in current assets from 2012 to 2013 due to a 17 percent increase in inventories.
- A 11 percent reduction in quick ratio in 2014 is due to an increase in current liabilities by 31 percent in 2014 over 2013 due to increase in short-term loans from banks and other loans.

Comparing the Two Companies

Year 2012

- The current ratios (TS = 0.87 and JS = 0.86) and the quick ratios (TS = 0.54 and JS = 0.57) of the two companies were almost equal but there was a huge difference between their cash ratios (TS = 0.27 and JS = 0.003).
- This means that Tata Steel is having around 50 percent cash and bank balances in liquid assets (current assets excluding inventories). But for Jindal Steel, cash and bank balances' values are relatively quite low.

Year 2013

- The current ratios (TS = 0.77 and JS = 1.07) and the quick ratios (TS = 0.42 and JS = 0.74) of Jindal Steel are higher than those of Tata Steel, but the cash ratios (TS = 0.15 and JS = 0.003) follow an opposite trend.
- Jindal Steel, despite having higher current ratio and quick ratio, still has a lower cash ratio and hence cannot pay off its current liabilities if an immediate need arises but Tata Steel has a relatively better cash ratio.

Year 2014

- The current ratios (TS = 0.68 and JS = 0.93) and the quick ratios (TS = 0.33 and JS = 0.65) of Jindal Steel are higher than those of Tata Steel but their cash ratios (TS = 0.06 and JS = 0.05) are almost equal.
- The major investment in current assets for Tata Steel was in inventories and due to this there is a huge drop in quick ratio but the investment in inventories for Jindal Steel is relatively less.
- Investments that are least liquid cannot be converted into cash and hence are not good for Tata Steel.

Annexure I

Balance Sheets of Tata Steel and Jindal Steel

Balance Sheet of Tata Steel for the Years 2012 to 2014

			As on March 31, 2014	*As on March 31, 2013*	*As on March 31, 2012*
		Equity and liabilities			
(1)		Shareholder's funds			
	(a)	Share capital	971.41	971.41	971.41
	(b)	Reserves and surplus	60,176.58	54,238.27	51,245.05
(2)		Hybrid perpetual securities	2,275	2,275	2,275
(3)		Noncurrent liabilities			
	(a)	Long-term liabilities	23,808.09	23,565.57	21,353.2
	(b)	Deferred tax liabilities (net)	2,038.98	1,843.74	970.51
	(c)	Other long-term liabilities	983.52	380.87	298.03
	(d)	Long-term provisions	1,905.05	2,113.42	1,851.3
(4)		Current liabilities			
	(a)	Short-term borrowings	43.69	70.94	65.62
	(b)	Trade payables	8,263.61	6,369.91	5,883.92
	(c)	Other current liabilities	8,671.67	8,503.54	8,716.57
	(d)	Short-term provisions	1,902.81	1,544.26	2,172.38
			1,11,040.41	**1,01,876.93**	**95,802.99**
		Assets			
(5)		Noncurrent assets			
	(a)	Fixed assets			
	(1)	Tangible assets	24,064.43	24,650.54	11,142.36
	(2)	Intangible assets	201.32	224.51	223.9
	(3)	Capital *work in progress*	18,509.4	8,722.29	16,046.75
	(b)	Noncurrent investments	52,381.56	49,984.8	49,078.35
	(c)	Long-term loans and advances	4,080.07	6,574.15	6,301.08
	(d)	Other noncurrent assets	302.03	190.04	190.98

(*Continued*)

(Continued)

			As on March 31, 2014	*As on March 31, 2013*	*As on March 31, 2012*
(6)		Current assets			
	(a)	Current investments	2,343.24	434	1,204.17
	(b)	Inventories	6,007.81	5,257.94	4,858.99
	(c)	Trade receivables	770.81	796.92	904.08
	(d)	Cash and bank balances	961.16	2,218.11	3,946.99
	(e)	Short-term loans and advances	1,299.2	2,207.83	1,829.25
	(f)	Other current assets	182.38	615.8	76.09
			1,11,103.41	**1,01,876.93**	**95,802.99**

Balance Sheet of Jindal Steel for the Years 2012 to 2014

			As on March 31, 2014	*As on March 31, 2013*	*As on March 31, 2012*
		Equity and liabilities			
(1)		Shareholder's funds			
	(a)	Share capital	91.49	93.48	93.48
	(b)	Reserves and surplus	12,972.84	12,254.59	10,751.93
(2)		Noncurrent liabilities			
	(a)	Long-term liabilities	13,520.78	11,860.92	8,493.92
	(b)	Deferred tax liabilities (net)	1,345.46	1,214.96	1,067.81
	(c)	Other long-term liabilities	695.11	560.58	141.24
	(d)	Long-term provisions	19.59	20.94	18.72
(3)		Current liabilities			
	(a)	Short-term borrowings	9,146.13	7,640.02	5,878.54
	(b)	Trade payables	1,637.34	628.2	998.31
	(c)	Other current liabilities	3,454.95	2,584.39	3,661.53
	(d)	Short-term provisions	3,265.97	2,951.85	2,452.63
		Total	**46,149.66**	**39,809.93**	**33,558.11**

		Assets			
(4)		Noncurrent assets			
	(a)	Fixed assets			
	(1)	Tangible assets	18,192.32	14,142.18	11,532.3
	(2)	Intangible assets	67.01	14.01	16.71
	(3)	Capital *work in progress*	11,640.25	11,466.12	10,479.86
	(4)	Intangible assets under development	22.92	17.82	14.1
	(b)	Noncurrent investments	1,350.52	1,330.72	1,412.17
	(c)	Long-term loans and advances	1,615.71	1,225.46	997.1
	(d)	Other noncurrent assets	0.63	0.55	4.63
(5)		Current assets			
	(a)	Current investments			
	(b)	Inventories	3,936.25	3,598.52	3,051.31
	(c)	Trade receivables	1,460.96	1,426.13	905.06
	(d)	Cash and bank balances	762	36.77	30.94
	(e)	Short-term loans and advances	6,543.65	5,943.54	4,806.29
	(f)	Other current assets	557.44	608.11	307.64
			46,149.66	**39,809.93**	**33,558.11**

Indian Fertilizer Sector

The fertilizer industry is vital for the Indian economy as nearly 25 percent of India's gross domestic product is derived from the agriculture and allied sector. Indian fertilizer industry is one of the vital industries for Indian economy as it manufactures a very critical raw material for agriculture. Indian food grain output, estimated at 263 million tons in 2013 to 2014, entirely depends on the health of the Indian fertilizer industry. Indian fertilizer demand stood at approximately 300 lakhs million tons last three years.

The industry has 57 large and 72 medium and small players, mainly dominated by state-owned firms: Gujarat State Fertilizers and Chemicals Ltd. (GSFC), Rashtriya Chemicals and Fertilizers Ltd. (RCFL), The

Coromandel International Fertilisers Ltd. (CIFL), IFFCO, NFL, KRIBHCO, Chambal Fertilizers and Chemicals Ltd., and Nagarjuna Fertilizers and Chemicals Ltd.

The liquidity situation for the sector remained tight due to low subsidy budgeting for financial year (FY) 2013 and FY 2014, which led to continued subsidy backlog. As per ICRA, total subsidy requirement for FY 2014 (excluding FY 2013 backlog) was expected to be Rs. 600 billion even after reduction in raw material prices and corresponding reduction in subsidies of nonurea fertilizers are accounted for, in a scenario where urea price hike did not take place in FY 2014.

FY 2012 to 2013 was a difficult year for the fertilizer industry, with demand getting affected on account of a delayed and deficient monsoon, and significant inflation following high input prices, decline in subsidy rates, and currency fluctuations. Sales of all fertilizers except urea declined in FY 2012 to 2013, with the overall sales volumes declining by 11 percent to 53.4 million metric tons (MMT) from 59.9 MMT in FY 2012 to 2013.

Furthermore, delays in subsidies due to significantly low budgeting led to high short-term borrowings and substantial increase in interest costs. Consequently, most players faced profitability constraints and cash flow pressures. Along with the subsidy problems, rising gas prices and currency depreciation are other issues that plagued the industry.

Figure 7.4 presents porters five forces for Indian fertilizer industry.

For the analysis, three companies have been selected in descending order of market cap, namely, CIFL, RCFL, and GSFC. They are leading players in urea, complex and phosphatic fertilizers, industrial gases, and so on.

Gujarat State Fertilizers and Chemicals Ltd.

GSFC was incorporated in 1962 and its plants went into production of fertilizers in 1967. It was the first industrial complex in the country set up in the joint sector. It was the first industrial project to secure direct and active equity participation of farmers, first to get IDBI assistance in the fertilizer sector.

Figure 7.4 Porters five forces for Indian fertilizer industry

Originally conceived as a fertilizer company with an objective of providing agricultural boost to the farmers of Gujarat and making Gujarat self-sufficient in fertilizers, it diversified into industrial chemicals. GSFC was the first company in India to establish a caprolactam plant in the year 1974.

Rashtriya Chemicals and Fertilizers Ltd.

RCFL, a Mini-Ratna public sector undertaking, was established in 1978 consequent to the reorganization of the fertilizer Corporation of India. RCFL, a Government of India undertaking, is a leading fertilizer and chemical manufacturing company with about 80 percent of its equity held by the Government of India. It manufactures urea and complex fertilizers (NPK) along with a wide range of industrial chemicals.

The Ujjwala urea and complex fertilizer Suphala brands of fertilizers manufactured by RCFL carry high brand equity and are recognized brands all over the country. It also produces bio fertilizers, micronutrients,

and 100 percent water-soluble fertilizers. Apart from these products, RCFL produces almost 20 industrial chemicals that are important for the manufacture of dyes, solvents, leather, pharmaceuticals, and a host of other industries.

The Coromandel International Fertilisers Ltd.

CIFL, India's second largest phosphatic fertilizer player, is in the business segments of fertilizers, specialty nutrients, crop protection, and retail. It is a part of the Rs. 243 billion Murugappa group.

The company manufactures a wide range of fertilizers and markets around 2.9 million tons, making it a leader in its addressable markets. It was ranked among the top 20 best companies to work for by *Business Today*.

Table 7.4 presents the financials of leading fertilizer companies for 2013.

Figures 7.5 and 7.6 presents composition of current assets and liabilities of fertilizer companies (FY 2013).

Table 7.4 Select financials of leading fertilizer companies in India for 2013

Company name	Market cap.	Sales turnover	Net profit	Total assets
CIFL	**7,265**	**9,380**	**344**	**4,415**
RCFL	**3,252**	**6,587**	**249**	**4,028**
GSFC	**2,924**	**5,412**	**342**	**5,446**
Fertilizers and Chemicals	2,216	2,220	−265	818
Chambal Fertilizers	2,205	7,981	303	5,145
NFL	2,040	8,029	−89	8,823
GNFC	1,503	4,847	292	5,547
Deepak Fertilizers	1,279	3,816	243	2,332
Oswal Chemicals and Fertilizers	1,088	108	71	2,191
Mangalore Chemicals	871	3,310	70	1,794
Zuari Agro Chemicals	733	5,197	26	3,749

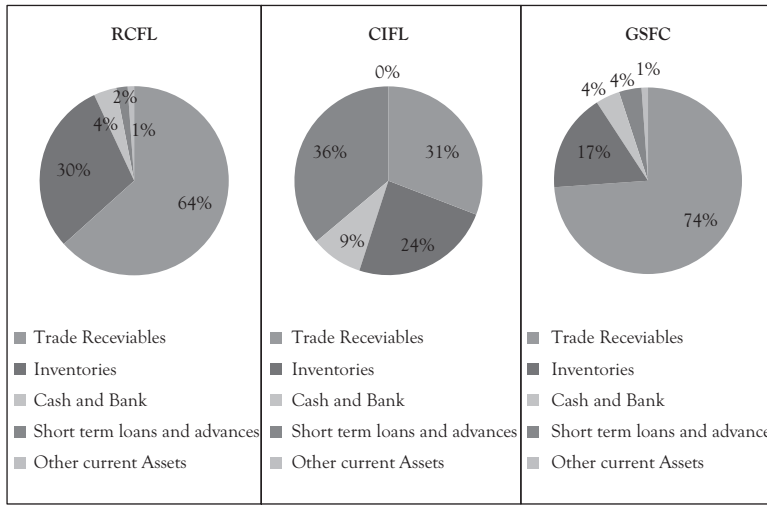


Figure 7.5 Composition of current assets of fertilizer companies (FY 2013)

- There is a significant increase in WC of GSFC in FY 2012 vis-à-vis to others due to 67 percent increase in receivables and 46 percent increase in cash and bank balances.
- Also there are increasing receivables, which caused increase in WC in FY 2013 (Figure 7.7).

- There is negative OCF for GSFC and RCFL. It is due to negative adjustments made for changes in working capital (receivables and payables) (Figure 7.8).

- GSFC has highest CR among peers.
- RCFL and GSFC reported decline in the ratio.
- CIFL managed to register slight improvement in the ratio (Figure 7.9).

- GSFC has highest LR among peers.
- CIFL and GSFC reported decline in the ratio.
- RCFL managed to register marginal increase in the ratio (Figure 7.10).

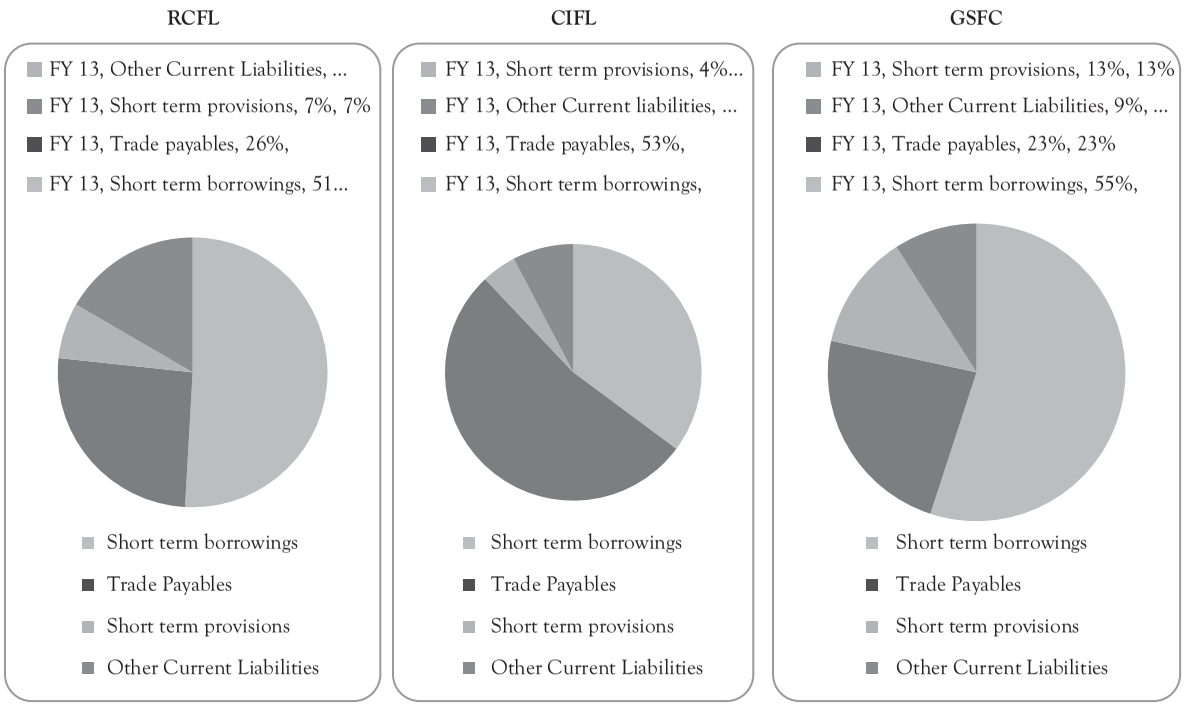


Figure 7.6 Composition of current liabilities of fertilizer companies (FY 2013)

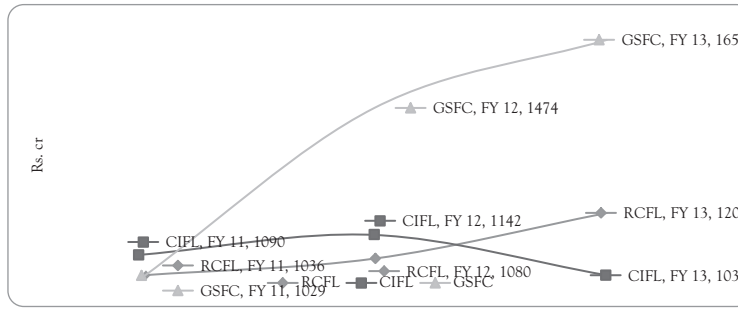


Figure 7.7 Working capital of fertilizer companies (FY 2011–2013)

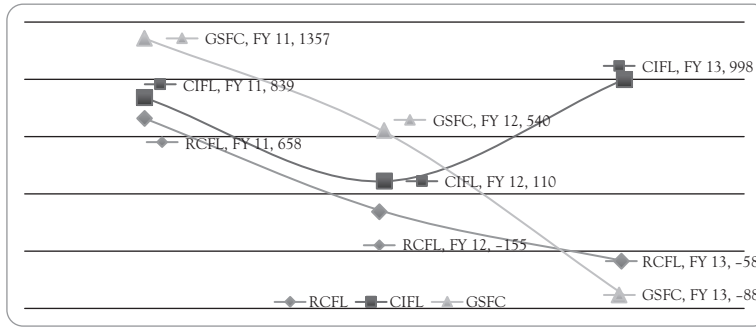


Figure 7.8 Net operating cash flows of fertilizer companies (FY 2011–2013)

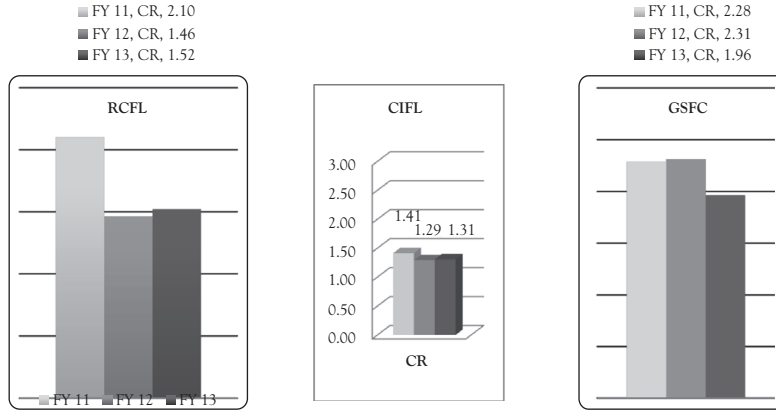


Figure 7.9 Current ratio of fertilizer companies (FY2011–2013)

- All three players registered decline in SQR.
- Sharpest decline is reported by GSFC (Figure 7.11).

- RCFL and GSFC had negative OCF for FY 2013.
- RCFL and GSFC had stressed liquidity with reduction in cash and bank balances (Figure 7.12).

Figure 7.10 Liquid ratio of fertilizer companies (FY2011–2013)

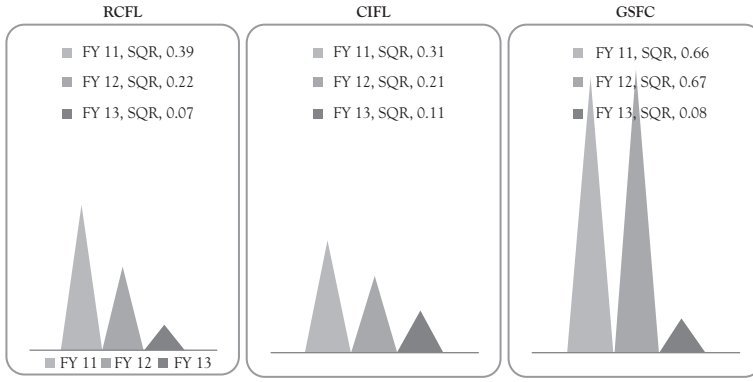


Figure 7.11 Super quick ratio of fertilizer companies (FY2011–2013)

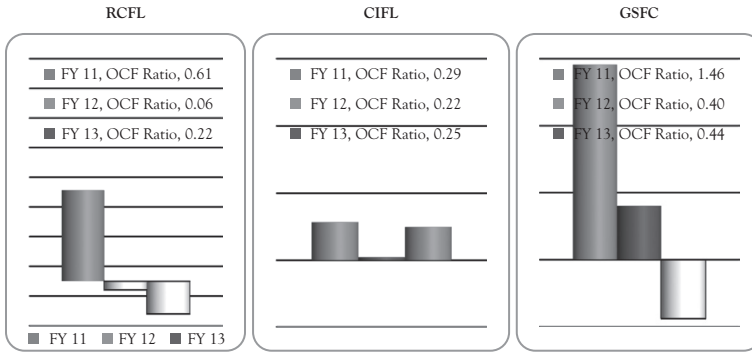


Figure 7.12 OCF ratio of fertilizer companies (FY 2011–2013)

- There is negative cash conversion cycle for CIFL, not because of improving receivables position, but due to large increase in payables.
- Others have a positive cash cycle (Figure 7.13).

The Table 7.5 presents the liquidity snapshot of sample fertilizer companies.

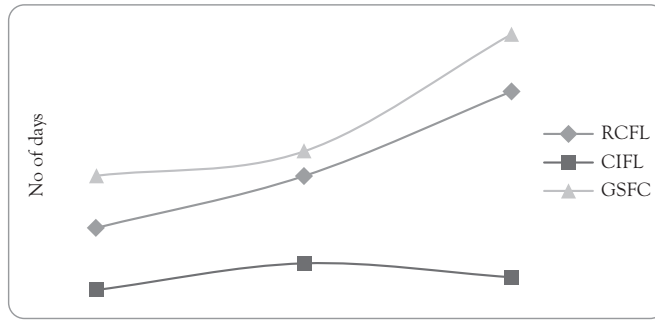


Figure 7.13 Cash conversion cycle of fertilizer companies (FY 2011–2013)

Table 7.5 Liquidity snapshot of sample fertilizer companies

	RCFL	CIFL	GSFC
Working capital trend	Increasing throughout	Increase and then decline	Increasing throughout
Net operating cash flows for FY 2013	Negative	Positive	Negative
Current ratio for FY 2013	Medium	Low	High
Liquid ratio for FY 2013	Medium	Low	High
Super quick ratio for FY 2013	Lowest	Low	Lower
OCF ratio for FY 2013	Negative	Positive	Negative
Cash conversion cycle	Medium	Negative	High

Recommendations

Risk	Impact	Mitigation plan
Liquidity—delay in subsidy settlement	On working capital; increased cost of borrowing	Monitor subsidy dues; increase working capital facilities
Operational risk volatility in price of raw materials	On revenues; increased cost of production; increased working capital requirement	Tie up for expended product range; close monitoring of price of raw materials
Outstanding trade receivables	Materials lying to be liquidated; extension of credit	Earliest collection

To tackle the liquidity problem, it is recommended that companies carefully check impact of fluctuation in prices of raw materials, monitor subsidy dues from the government, insist on early collection for their overdue receivables, and manage cash efficiently. They may also resort to short-term borrowings to conserve cash and stabilize the cash flow position, as an increase in current liabilities increases the net cash flow from operations.

According to an ICRA report 2013 to 2014, the subsidy provided for 2014 to 2015 is lower than the actual estimated requirement. The subsidy gaps are expected to rise unless major reforms are implemented by the government. Clarity on gas pricing and timely receipt of subsidies by fertilizer companies from the government will be the key monitorables going forward.

Future Outlook

Urea sales volumes have continued to grow at a stable long-term average of 3 percent, though nonurea fertilizers witnessed a significant volume decline. A significant amount of inventory has reported to have got cleared by players in 2013 to 2014.

The subsidy provisioning for 2014 to 2015 at Rs. 68,000 crores (according to the interim budget for 2013 to 2014) would be substantially

lower than the estimated requirement of about Rs. 1.1 lakhs crores. As a result, the subsidy gap will rise from around Rs. 37,000 crores at the end of 2013 to 2014 to about Rs. 41,000 crores at the end of 2014 to 2015 unless any reform measures are implemented for the industry.

With subsidy delays likely to continue to lead to high borrowings and corresponding high interest costs leading to weak profitability and liquidity, the financial performance of the industry is expected to continue to remain subdued in the near to medium term.

Annexure II

Balance Sheets of Sample Fertilizer Companies

Balance Sheet of RCFL

	FY 2013	FY 2012	FY 2011
Current assets			
Trade receivables	2,579	1,978	857
Inventories	1,205	1,178	535
Cash and bank	176	592	419
Short-term loans and advances	71	85	88
Other current assets	30	41	357
Total current assets	**4,062**	**3,874**	**2,257**
Current liabilities			
Short-term borrowings	1,457	910	254
Trade payables	738	1,264	509
Short-term provisions	191	147	145
Other current liabilities	476	474	312
Total current liabilities	**2,862**	**2,794**	**1,220**
Liquid assets	2,857	2,697	1,722
Net cash from operating activities	−588	−155	658
Working capital	**1,200**	**1,080**	**1,036**

Balance Sheet of CIFL

	FY 13	FY 12	FY 11
Current assets			
Trade receivables	1,611	887	202
Inventories	1,265	1,856	1,513
Cash and bank	453	918	902
Short-term loans and advances	1,874	2,013	1,088
Other current assets	7	13	438
Total current assets	**5,210**	**5,687**	**4,143**
Current liabilities			
Short-term borrowings	1,468	2,145	1,223
Trade payables	2,203	2,043	1,511
Short-term provisions	182	132	118
Other current liabilities	321	225	201
Total current liabilities	**4,173**	**4,544**	**3,053**
Liquid assets	3,945	3,831	2,630
Net cash from operating activities	998	110	839
Working capital	**1,037**	**1,142**	**1,090**

Balance Sheet of GSFC

	FY 2013	FY 2012	FY 2011
Current assets			
Trade receivables	2,908	1,441	865
Inventories	688	642	565
Cash and bank	163	898	613
Short-term loans and advances	143	64	57
Other current assets	51	74	28
Total current assets	**3,953**	**3,118**	**2,128**
Current liabilities			
Short-term borrowings	1,266	617	392
Trade payables	538	492	307
Short-term provisions	288	296	167
Other current liabilities	208	239	232
Total current liabilities	**2,300**	**1,644**	**1,099**
Liquid assets	3,265	2,476	1,563
Net cash from operating activities	−884	540	1,357
Working capital	**1,653**	**1,474**	**1,029**

Indian Cement Sector

This has been discussed in Chapter 3.

For company profiles of UltraTech, Ambuja, and Associated Cement Companies (ACC), refer to Chapter 3.

Liquidity Analysis

The liquidity analysis of the cement sector is discussed as follows (Tables 7.6 to 7.8).

Current ratio of Ambuja Cements Limited shows a very high value in 2010 (>15), which suddenly dropped to 7.94 in 2011 and to 3.32 in 2012; still they have a current ratio above 3, which is more than the average of the group. Other major players in the group, that is, ACC and UltraTech, have shown consistent current ratios between 1 and 2 for the last three years.

Table 7.6 Current ratio of the cement sector

Company	2010	2011	2012	2013	2014
Ambuja Cements Limited	15.69	7.94	3.32	3.13	3.04
ACC Limited	3.65	2.32	2.22	1.70	1.28
UltraTech Cement Limited	1.51	1.63	1.76	1.47	1.84

Table 7.7 Liquid ratio of cement sector

Company	2010	2011	2012	2013	2014
Ambuja Cements Limited	11.20	6.02	2.70	2.61	2.59
ACC Limited	2.44	1.62	1.70	1.27	0.84
UltraTech Cement Limited	0.67	0.78	1.23	1.03	1.36

Table 7.8 Cash ratio of cement sector

Company	2010	2011	2012	2013	2014
Ambuja Cements Limited	8.19	4.29	1.41	1.32	1.24
ACC Limited	1.29	1.06	0.31	0.19	0.10
UltraTech Cement Limited	0.08	0.06	0.04	0.02	0.05

Liquid ratio trend is similar to the current ratio; Ambuja Cements Limited has recorded a liquid ratio greater than 11 in 2010, which has come down to 2.59 in 2014, which is still higher than the group average. Other players are consistent and in the range of market average.

We can see from Table 7.8 that the companies do not prefer to keep much cash reserve, but still they should have sufficient cash for daily cash payments and contingency. Ambuja Cements Limited can pay all its current liabilities from its cash reserve; this range of liquidity is not desirable. On the other hand, UltraTech is showing a cash ratio of less than 0.1. In fact, India Cements had negligible cash in the last three years of operation; shortage of cash can directly impact the production.

Table 7.9 presents the Dupont analysis of cement sector.

From the Dupont analysis, we can see that all companies have been showing a continuous declining trend of ROE. The two major reasons are shrinking profit margins and reducing efficiency. UltraTech's performance is most unsatisfactory in comparison to the performance of other players.

Table 7.9 DuPont analysis (ROE performance) of cement sector

Company	Year	PAT or sales %	Sales or TA	TA or NW	ROE (%)
Ambuja Cements Limited	2010	15	1.04	1.08	17
	2011	13	1.09	1.09	15
	2012	12	0.89	1.40	15
	2013	13	0.79	1.37	14
	2014	13	0.80	1.38	15
ACC Limited	2010	13	1.16	1.14	17
	2011	13	1.27	1.14	18
	2012	8	1.06	1.62	14
	2013	9	1.03	1.55	14
	2014	9	1.03	1.54	14
UltraTech Cements	2010	14	1.10	1.53	24
	2011	9	0.90	1.55	13
	2012	12	0.89	1.78	19
	2013	12	0.83	1.8	17
	2014	9	0.77	1.74	13

Its assets' utilization is below average; asset turnover ratio, which is more than 1 for the industry, is less than 1 and continuously on a declining spree for India Cements.

Recommendations

From the aforementioned financial ratio analysis and DuPont analysis we can find out the following improvement areas for the sector as a whole.

First, revamp their existing operations; it may be through change in management, introducing new technology, emphasis on training, and so on. Profitability is the key issue here, which can come only through operational efficiency.

It is evident that asset turnover for the sector is not healthy, which may be because of dead assets or their underutilization. A critical review of asset utilization is needed.

Liquidity is the biggest problem in the short run; this needs to be addressed on an urgent basis. Dematerialization of a few assets could be a good option, which will yield liquidity and also improve the asset turnover efficiency.

Future Outlook

It is evident that if companies just continue their operations without plugging the holes, they will not be able to perform well for very long; they are failing on few essential parameters of concern.

The cement sector is riding on a path promised with a compound annual growth rate of more than 9 percent. The industry has lot of potential and some key players have already invested heavily in technology to have the best efficiency in the world and have already enhanced their plant capacity for future utilization. The presence of the world's biggest cement manufacturer also makes the market very competitive and thriving for technical advancement. No company can last longer if it does not match the industry standards.

Annexure III

Liquidity Financials of Cement Sector

Ambuja Cement

Year	Current assets	Current liabilities	CA–CL	Inventories	Cash and bank	Current ratio	Quick ratio	Super quick ratio
2014	5,995.21	1,971.38	4,023.83	8,88.39	2,458.12	3.04	2.59	1.25
2013	5,537.04	1,766.91	3,770.13	933.94	2,341.09	3.13	2.61	1.32
2012	5,276.4	1,590.41	3,685.99	983.93	2,253.72	3.32	2.70	1.42
2011	3,828.32	482.02	3,346.3	924.97	2,071.23	7.94	6.02	4.30
2010	3,153.33	201.04	2,952.29	901.86	1,648.17	15.69	11.20	8.20

ACC Limited

Year	Current assets	Current liabilities	CA–CL	Inventories	Cash and bank	Current ratio	Quick ratio	Super quick ratio
2014	3,651.14	2,846.94	804.2	1,255.59	304.3	1.28	0.84	0.11
2013	4,418.14	2,591.64	1,826.5	1,121.47	503.38	1.70	1.27	0.19
2012	4,826.35	2,176.3	2,650.05	1,133.55	687.38	2.22	1.70	0.32
2011	3,617.94	1,556.34	2,061.6	1,099.7	1,652.56	2.32	1.62	1.06
2010	2,753.35	754.68	1,998.67	914.98	980.03	3.65	2.44	1.30

UltraTech Cement

Year	Current assets	Current liabilities	CA–CL	Inventories	Cash and bank	Current ratio	Quick ratio	Super quick ratio
2014	8,997.67	4,891.83	4,105.84	2,368.36	277.5	1.84	1.36	0.06
2013	7,816.2	5,303.2	2,513	2,350.47	142.66	1.47	1.03	0.03
2012	6,804.23	3,876.27	2,927.96	2,035.94	189.58	1.76	1.23	0.05
2011	3,758.7	2,306.92	1,451.78	1,956.52	144.79	1.63	0.78	0.06
2010	1,472.39	977.07	495.32	821.7	83.73	1.51	0.67	0.09

Indian IT Sector

The Indian IT industry has been growing steadily despite the global meltdown in the year 2009. It still managed to register a growth of 5.5 percent. Potential size of India's offshoring industry is estimated at US$120 billion to US$180 billion by 2015. The industry currently employs around 1 million people and provides indirect employment to around 2.5 million people. Indian IT and ITES sector is growing substantially with its expansion into varied verticals, well-differentiated service offerings, and increasing geographic penetration. The success of the Indian IT–ITES industry can be attributed to the favorable government policies, high demand conditions, and competitive environment prevalent in the industry.

The Figure 7.14 shows the top five Indian IT companies by revenue in 2013.

TCS

Tata Consultancy Services Limited (TCS) is a multinational IT service, consulting and business solutions company headquartered in Mumbai, India, and was founded in 1968. Natarajan Chandrasekaran is the chief

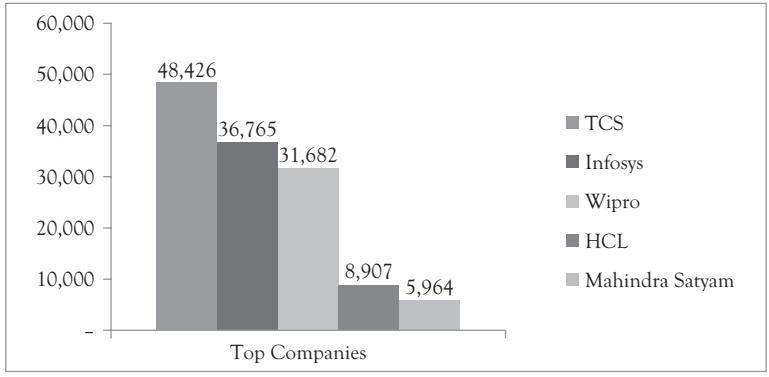


Figure 7.14 Top five Indian IT companies by revenue in 2013 (Rs. crores)

Source: www.capitalline.com

executive officer (CEO) and managing director (MD) of the group. TCS operates in 46 countries. It is a subsidiary of the Tata Group and is listed on the Bombay Stock Exchange and the National Stock Exchange of India. TCS is the largest Indian company by market capitalization and is the largest India-based IT services company by 2013 revenues. TCS is now placed among the "Big 4" most valuable IT service brands worldwide.

Infosys

Infosys is an Indian multinational corporation that provides business consulting, IT, software engineering, and outsourcing services. It is headquartered in Bangalore, Karnataka. Infosys is the third-largest India-based IT services company by 2014 revenues, and the fifth largest employer of H-1B visa professionals in the United States in FY 2013. On March 31, 2014, its market capitalization was Rs. 188,510 crores ($31.11 billion), making it India's fifth largest publicly traded company.

Problems with the Company

TCS

There was holistic growth across markets and industries during the financial year of 2013 to 2014. On a consolidated basis, revenue from operations for FY 2013 to 2014 at Rs. 81,809.36 crores was higher by 29.88 percent than that of the previous year (Rs. 62,989.48 crores in 2012 to 2013). EBITDA at Rs. 25,152.79 crores was higher by 39.43 percent over its previous year's value (Rs. 18,039.91 crores in 2012 to 2013). PAT at Rs. 19,163.87 crores was higher by 37.70 percent over previous year's PAT of Rs. 13,917.31 crores in 2012 to 2013. The company has recorded a strong revenue and margin performance.

TCS's cash reserves were very low when compared to those of Infosys Limited. This is not good if seen from the perspective of the IT industry, which is very volatile. Sufficient cash reserves may be required to sustain the business during economic meltdowns. If we look at the cash and cash equivalents of TCS, we see that it is around Rs. 400 crores, which may not be sufficient to weather sudden economic shocks.

Infosys

In April 2013, the company announced one of its worst quarterly financial results, prompting investors to punish the stock and wipe away more than one-fifth of its market value in a day. For FY 2014 to 2015, Infosys has forecast revenue growth that is much lower than average industry expectations, indicating that a turnaround is still very much a work in progress. On a consolidated basis, revenue from operations for FY 2013 to 2014 at Rs. 12,777 crores was higher by 26.68 percent over that of the previous year (Rs. 10,086 crores in 2012 to 2013). EBITDA at Rs. 15,103 crores was higher by 13.44 percent than that of the previous year (Rs. 13,313 crores in 2012 to 2013). PAT at Rs. 10,194 crores was higher by 11.80 percent than that of the previous year (Rs. 13,917.31 crores in 2012 to 2013).

The company's singular focus is on short-term margins to the detriment of long-term top-line. We can say that growth is probably being sacrificed for bottom line. This is evident also from the cash pile it is sitting on: nearly Rs. 20,000 crores, or about $3.8 billion. Too much cash in the bank makes you ultraconservative and risk-averse. Although nothing is wrong with this, all highly profitable companies in competitive industries come to this fork in the road where they have to choose between revenue and margins. Companies that choose margins over top-line in the short term could end up as niche players and smaller volume market shares. Companies that choose top-line over margins tend to become large players with market dominance—if they execute well. A zero-growth quarter for Infosys thus means that the company is currently willing to sacrifice growth for margins, and if this is the clear choice the management is making in terms of long-term corporate strategy, it could have consequences.

- The current ratio of Infosys has been decreasing during the last three years but it is well over the expected value of 2. It suggests that Infosys has enough cash to meet its short-term obligations.
- Although it is good to have good amount of cash for a company, but a large amount of cash remaining unutilized serves no purpose to the company. It is nothing but a dead asset.

- On the other hand, the current ratio of TCS has been increasing. In 2012, they were below the benchmark; but after that, they bounced back with the current assets increasing at a higher rate as compared to current liabilities (Figure 7.15).

- In all the three years, the quick ratio for Infosys is above 1, which suggests that it is experiencing solid top-line growth, quickly converting receivables into cash, and easily able to cover its financial obligations.
- In the case of TCS, if we compare the current ratio and the liquid ratio (Figure 7.16), we can see that there is a very minor change. This is because inventories and pre-paid expenses form a minor part in the current assets of the company. This is a positive point as most of their assets can easily be converted into liquid cash. Also, the ratio has been increasing year by year and is above the expected ratio of 1:1.

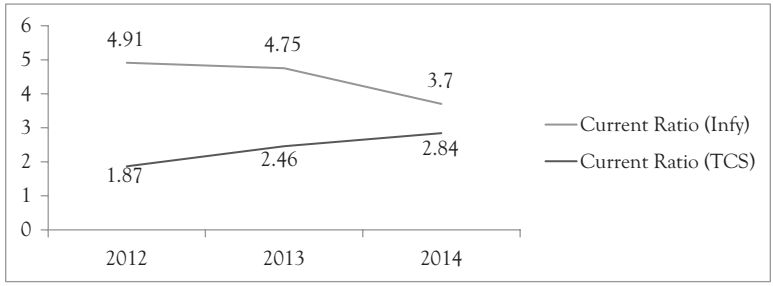


Figure 7.15 Current ratio of IT companies

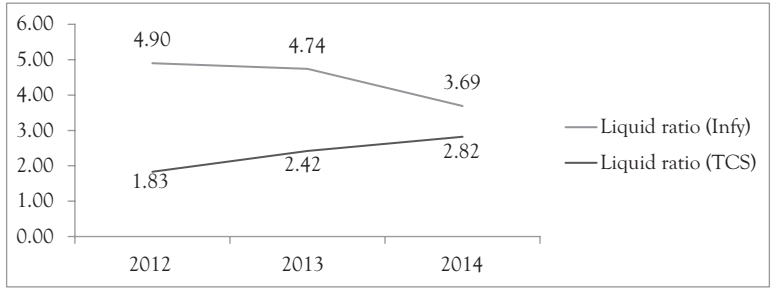


Figure 7.16 Liquid ratio of IT companies

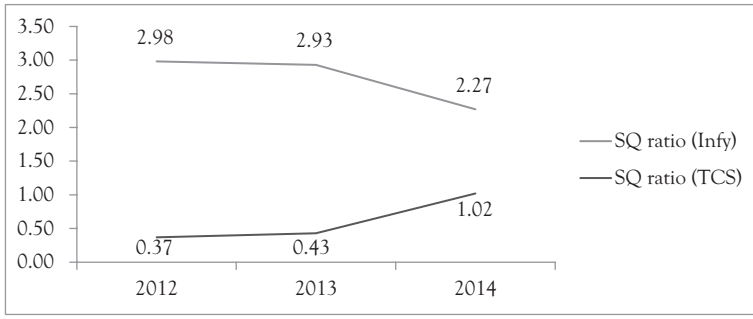


Figure 7.17 Super quick ratio of IT companies

- The super quick ratio for Infosys has shown a downward trend for the last three fiscal years. This is because current liabilities over the years have increased at a faster rate as compared to cash and bank balances.
- On the other hand, for TCS, there has been a continuous increase in super quick ratio over the last three fiscal years. This can be attributed to increase in cash and bank balances at a faster rate than current liabilities.
- Also, Infosys has a larger super quick ratio than TCS for each of the past three years. So, it is likely for Infosys to get rid of liabilities in an easier and comfortable fashion as compared to TCS (Figure 7.17).

Recommendations

1. Infosys can focus on buying new start-ups and businesses as the idle cash lying with it is nothing but a dead asset. This will help in creating more revenues in the long term for the company.
2. In the case of Infosys, we see that it has paid almost negligible dividends to the shareholders for the last three fiscals as compared to TCS even after sitting on such a huge cash pile. Infosys should pay dividends to shareholders whenever it is making profits so as to gain their confidence in the company.
3. TCS should keep up its good work of paying regular dividends to its shareholders. This makes an impression that the company is looking

forward for more shareholders and focusing on its future growth and performance.

4. Even though cash reserves at TCS are sufficient, the company should make an effort to save more so as to be ready for any volatile market conditions in the IT market.

Annexure IV

Financial Statements of TCS

Profit and Loss Statement

	2014	2013	2012
I. Revenue from operations	64,672.93	48,426.14	38,104.23
(Net of excise duty of Rs. 3.15 crores [previous year: Rs. 0.82 crores])			
II. Other income (net)	3,114.71	2,230.39	2,685.18
Total revenue	**67,787.64**	**50,656.53**	**40,789.41**
III. Expenses:			
(a) Employee benefit expenses	21,466.56	17,081.72	13,572.68
(b) Operation and other expenses	21,672.65	17,038.15	13,145.83
(c) Finance costs	23.41	30.62	16.40
(d) Depreciation and amortization expense	1,080.55	802.86	688.17
Total expenses	44,243.17	34,953.35	27,423.08
IV. Profit before tax	23,544.47	15,703.18	13,366.33
V. Tax expense:			
(a) Current tax	5,130.03	3,197.40	2,865.38
(b) Deferred tax	(22.18)	44.02	(38.93)
(c) MAT credit entitlement	(38.30)	(324.58)	(436.10)
	5,069.55	2,916.84	2,390.35
VI. Profit for the year	**18,474.92**	**12,786.34**	**10,975.98**
VII. Earnings per equity share: basic and diluted (Rs.)	94.15	65.22	55.95
Weighted average number of equity shares (face value of Rs. 1 each)	195,87,27,979	195,72,20,996	195,72,20,996

Balance Sheet

Equity and liabilities	2014	2013	2012
Shareholders' funds			
(a) Share capital	195.87	295.72	295.72
(b) Reserves and surplus	43,856.01	32,266.53	24,560.91
	44,051.88	32,562.25	24,856.63
Noncurrent liabilities			
(a) Long-term borrowings	89.69	83.1	96.23
(b) Deferred tax liabilities (net)	226.87	168.49	118.1
(c) Other long-term liabilities	690.44	251.87	197.59
(d) Long-term provisions	279.61	269.52	154.78
	1,286.61	772.98	566.7
Current liabilities			
(a) Short-term borrowings		80.02	
(b) Trade payables	3,977.55	3,349.94	2,847.91
(c) Other current liabilities	2,460.32	2,172.71	1,598.56
(d) Short-term provisions	5,827.83	3,896.14	4,389.01
	12,265.7	9,498.81	8,835.48
Total	57,604.19	42,834.04	34,258.81
Assets	**2014**	**2013**	**2012**
Noncurrent assets			
(a) Fixed assets			
(i) Tangible assets	5,887.09	5,059.48	4,012.16
(ii) Intangible assets	42.1	44.8	51.46
(iii) Capital work in progress	3,047.53	1,763.85	1,399.82
	8,976.72	6,868.13	5,463.44
(b) Noncurrent investments	5,098.55	5,975.73	5,147.06
(c) Deferred tax assets (net)	273.58	148.23	139.74
(d) Long-term loans and advances	6,875.54	4,630.21	4,332.81
(e) Other noncurrent assets	1,544.99	1,881.2	2,636.88
	22,769.38	19,503.5	17,719.93
Current assets			
(a) Current investments	733.87	348.65	541.33
(b) Inventories	8.57	6.34	4.14
(c) Unbilled revenue	2,626.08	2,303.35	1,567.47
(d) Trade receivables	14,471.89	11,202.32	9,107.72

(e) Cash and bank balances	12,566.26	4,054.16	3,280.07
(f) Short-term loans and advances	3,688.12	4,733.38	1,649.74
(g) Other current assets	740.02	682.34	388.41
	34,834.81	23,330.54	16,538.88
Total	57,604.19	42,834.04	34,258.81

Cash Flow Statement

Rs. (in crores)	March 2014	March 2013	March 2012
Net profit before tax	23,544.47	15,703.18	13,366.33
Net cash from operating activities	12,941.93	9,156.95	3,174.63
Net cash (used in or) from Investing activities	(7,189.32)	(3,482.98)	433.36
Net cash (used in or) from financing activities	(5,684.32)	(5,655.80)	(3,897.22)
Net (decrease or) increase in cash and cash equivalents			
Opening cash and cash equivalents	323.85	318.97	(289.23)
Closing cash and cash equivalents	438.37	323.85	318.97

Annexure V

Financial Statements of Infosys

Profit and Loss Statement

Rs. (in crores)	March 2014	March 2013	March 2012
Income			
Sales turnover	44,341.00	36,765.00	31,254.00
Excise duty	0	0	0
Net sales	44,341.00	36,765.00	31,254.00
Other income	2,576.00	2,298.00	2,313.00
Stock adjustments	0	0	0
Total income	**46,917.00**	**39,063.00**	**33,567.00**

(*Continued*)

(Continued)

Rs. (in crores)	March 2014	March 2013	March 2012
Expenditure			
Raw materials	0	0	0
Power and fuel cost	0	0	0
Employee cost	24,350.00	19,932.00	15,481.00
Other manufacturing expenses	3,990.00	2,969.00	3,947.00
Selling and admin expenses	0	0	0
Miscellaneous expenses	3,474.00	2,849.00	1,765.00
Preoperative expenses capitalized	0	0	0
Total expenses	31,814.00	25,750.00	21,193.00
Operating profit	**12,527.00**	**11,015.00**	**10,061.00**
PBDIT	15,103.00	13,313.00	12,374.00
Interest	0	0	0
PBDT	15,103.00	13,313.00	12,374.00
Depreciation	1,101.00	956	794
Other written off	0	0	0
Profit before tax	14,002.00	12,357.00	11,580.00
Extraordinary items	0	0	0
PBT (post extraordinary items)	14,002.00	12,357.00	11,580.00
Tax	3,808.00	3,241.00	3,110.00
Reported net profit	**10,194.00**	**9,116.00**	**8,470.00**
Total value addition	31,814.00	25,750.00	21,193.00
Preference dividend	0	0	0
Equity dividend	3,618.00	2,412.00	2,699.00
Corporate dividend tax	615	403	438

Balance Sheet

Rs. (in crores)	March 2014	March 2013	March 2012
Sources of funds			
Total share capital	286	287	287
Equity share capital	286	287	287

Share application money	0	0	0
Preference share capital	0	0	0
Reserves	41,806.00	35,772.00	29,470.00
Revaluation reserves	0	0	0
Net worth	42,092.00	36,059.00	29,757.00
Secured loans	0	0	0
Unsecured loans	0	0	0
Total debt	0	0	0
Total liabilities	42,092.00	36,059.00	29,757.00

Rs. (in crores)	March 2014	March 2013	March 2012
Application of funds			
Gross block	10,374.00	8,029.00	4,061.00
Less: Accumulated depreciation	4,642.00	3,576.00	0
Net block	**5,732.00**	**4,453.00**	**4,061.00**
Capital work in progress	954	1,135.00	588
Investments	**6,717.00**	**4,344.00**	**1,409.00**
Inventories	0	0	0
Sundry debtors	7,336.00	6,365.00	5,404.00
Cash and bank balance	24,100.00	20,401.00	18,057.00
Total current assets	31,436.00	26,766.00	23,461.00
Loans and advances	7,873.00	6,330.00	6,296.00
Fixed deposits	0	0	0
Total CA, loans, and advances	39,309.00	33,096.00	29,757.00
Deferred credit	0	0	0
Current liabilities	4,503.00	3,181.00	2,454.00
Provisions	6,117.00	3,788.00	3,604.00
Total CL and provisions	10,620.00	6,969.00	6,058.00
Net current assets	**28,689.00**	**26,127.00**	**23,699.00**
Miscellaneous expenses	0	0	0
Total assets	**42,092.00**	**36,059.00**	**29,757.00**

Cash Flow Statement

Rs. (in crores)	March 2014	March 2013	March 2012
Cash flow summary			
Cash and cash equivalents at beginning of the year	20,402	19,557	15,165
Net cash from operating activities	9,148	6,942	5,921
Cash flow from operating activities			
Net profit before tax and extraordinary items	14,002	12,274	11,096
Adjustment for			
Depreciation	1,101	956	794
Interest (net)	−2,272	−1,931	−1,720
Profit or loss on sales of assets	−1	0	−2
Profit or loss in foreign exchange	−8	−30	−41
Others	228	85	0
Total adjustments (PBT and extraordinary items)	−952	−920	−969
Operating profit before working capital changes	13,050	11,354	10,127
Adjustment of trade and other receivables	−971	−961	−1,180
Trade payables	0	0	671
Loans and advances	−844	−997	−819
Others	1,542	690	0
Total (OP before working capital changes)	−273	−1,268	−1,328
Cash generated from (or used in) operations	12,777	10,086	8,799
Interest paid (net)	0	0	0
Direct taxes paid	−3,629	−3,144	−2,938
Total—others	−3,629	−3,144	−2,938
Cash flow before extraordinary items	9,148	6,942	5,861

Extraordinary items			
Gain on foreign exchange transaction	0	0	60
Net cash used in investing activities	−2,273	−2,779	769
Cash flow from investing activities			
Investment in assets:			
Purchase of fixed assets	−2,490	−1,852	−1,296
Sale of fixed assets	2	5	0
Financial or capital investment:			
Purchase of investments	−22,189	−21,486	−2,796
Sale of investments	20,986	19,606	2,574
Investment income	0	0	0
Interest received	2,269	1,951	1,703
Dividend received	0	0	578
Investment in subsidiaries	−2	−1,384	−104
Loans to subsidiaries	0	0	0
Others	−849	381	110
Net cash used in financing activities	−3,177	−3,319	−2,298
Cash flow from financing activities			
Proceeds:			
Proceeds from issue of shares (including share premium)	0	1	6
Dividend paid	−2,686	−2,698	−2,012
Others	−491	−622	−292
Net cash used in financing activities	−3,177	−3,319	−2,298
Net Increase (or Decrease) in cash and cash equivalent	3,698	844	4,392
Cash and cash equivalents at end of the year	24,100	20,401	19,557

PART V

Solvency Ratios

CHAPTER 8

Concept of Solvency Ratios

The Present Chapter

This chapter presents an overview of the concept of solvency ratios.

Solvency

Solvency denotes the ability of a company to pay off its long-term debt and the interest on that debt. Solvency measurement is of immense importance for financial risk analysis as it helps the business owner in determining the chances of the firm's long-term survival. It is also used to analyze how a company is funding its operations, through shareholder's equity or through debt or mix of each.

Solvency ratios are of interest to long-term creditors and shareholders. These groups are interested in the long-term health and survival of a business firm. In other words, solvency ratios prove that the firm can service its debt in the form of interest as well as pay the principal when the debt matures.

Debt Ratio

It is calculated as:

$$\text{Debt ratio} = \frac{\text{Total debt}}{\text{Total assets}}$$

Debt ratio measures the extent of a company's leverage and signifies how much a company's assets are funded through long-term debt as opposed to equity. If the debt ratio is high, it denotes that the company has a lot of debt relative to its equity. It is thus carrying a bigger burden in

the sense that principal and interest payments take a significant amount of the company's cash flows, which could lead to a setback in financial performance or a rise in interest rates.

Debt–Equity Ratio

It is also called as financial leverage ratio and is calculated as:

$$\text{Debt} - \text{equity ratio} = \frac{\text{Long-term liabilities}}{\text{Equity}}$$

Some scholars propose debt as total debt, including long-term and short-term liabilities. Equity refers to the net worth of a company.

A high debt–equity ratio means that a company has been aggressive in financing its growth by borrowing money. But, a low debt–equity ratio may show that a company is not taking advantage of the increased profits that financial leverage may bring. Therefore, the average debt–equity ratio is considered as 2:1.

Lenders and investors may usually prefer low debt–equity ratios as their interests will be better protected in the event of a business decline. Firms with high debt–equity ratios may not be able to attract additional capital.

Interest Coverage Ratio

It is calculated as:

$$\text{Interest coverage ratio} = \frac{\text{EBIT}}{\text{Interest on long-term loans}}$$

It is a ratio that is used to determine how easily a company can pay interest on outstanding debt. It signifies how many times the company's earnings are to cover the annual interests on long-term debts.

A high interest to coverage ensures greater safety for the lender. It also exposes risk in case the earnings fluctuate.

Notes:

1. All debt (bonds, debentures, bank loans, notes payable, etc.)—whether short-term debt, senior debt, or junior debt—should be considered in the calculation of the interest coverage ratio.
2. A good practice is to prorate the interest charges for the entire year if new debt is issued later during the fiscal year.

Debt-Service Coverage Ratio

It is calculated as:

$$\text{Debt-service coverage ratio} = \frac{\text{Cash flow from operating activities}}{\text{Interest expense} + \text{Installments}}$$

It determines the amount of cash flow available to meet annual interest and principal payments on debt, including sinking fund payments.

The ratio is a significant tool for measuring leverage for low-leveraged companies and measures how much a company can cover its annual debt obligations using cash flow from core activities.

Lenders use the DSCR in order to evaluate applicant companies' current cash flows as an indication of the companies' ability to repay a loan.

Equity Multiplier Ratio

It is calculated as:

$$\text{Equity multiplier ratio} = \frac{\text{Total assets}}{\text{Equity}}$$

The equity multiplier is another important measurement tool of a company's financial leverage. Companies finance the purchase of assets either through equity or debt. A high equity multiplier indicates that a larger portion of asset financing is being done through debt. The multiplier is a variation of the debt ratio.

Note: A high equity multiplier is not necessarily better than a low multiplier. If it is cheaper to borrow than issuing new shares, financing assets through debt may be more cost-effective than the secondary issue.

Box 8.1: Bird's eye view of solvency ratios

All solvency ratios are expressed in number of times.

CHAPTER 9

Corporate Examples of Solvency Ratios

The Present Chapter

The analysis of the solvency of the IT sector in India has been approached here. A comparative study of the ratios of the two key players in the sector, namely TCS and Infosys, has been done. The IT sector overview and the companies' profiles have been discussed in the previous chapter.

Analysis

TCS

The solvency ratios of TCS are summarized as follows.

As can be seen from Table 9.1, the leverage ratios for TCS have been very low (almost negligible) for the past three annual periods. Each ratio can be analyzed as follows:

1. The *debt ratio*, which gives the status of financial leverage of a company on a cursory look, is almost one-fifth for TCS. This means that even after considering all the liabilities (current and long term), the assets of the company are five times those of all the liabilities. This shows that the company is in good financial situation in the long run.
2. *Debt equity ratio*, which is a deeper analysis of the solvency, shows that the long-term borrowings of the company are almost nil compared to the shareholder's equity. This shows that the company is funding all its operations (short term and long term) from the shareholder's funds as against the debt. The debt component is very low. This shall be analyzed in the subsequent analysis with additional details.

Table 9.1 Solvency ratios of TCS

	2011–12	2012–13	2013–14
Debt ratio	0.27	0.24	0.23
Debt–equity ratio	0.004	0.005	0.003
Interest coverage ratio	632.86	443.57	859.62
Debt–service coverage ratio	179.87	287.41	525.03
Equity multiplier ratio	1.39	1.33	1.31

3. The *interest coverage ratio* that gauges the ability to meet its interest expenses for long-term borrowings is over 500 for every year. It means that the company has the operating profit that is over 500 times its interest payment obligations. This means that the company has no solvency problem.
4. *Debt–service coverage ratio*, which measures the ability to pay its interest obligations plus the installments on those borrowings with its cash flow from operating activities, is also over 200 and increasing yoy.
5. The *equity multiplier* is around 1.3 for all the years. This means that the proportion of shareholder's equity in the total assets is very high.

The ratios above five, points toward one fact: The company has funded most of its activities through shareholders' equity and focused very less on debt option. Ordinarily, this can be regarded as underutilization of the available leverage benefits. The company has established its presence in the market to borrow heavily from it at very low rates. However, being in the volatile sector of IT, the policy is understandable.

Additionally,

- The company kept an amount of Rs. 36,420 crores as balance on profit and loss account in 2013 to 2014.
- Since 2005, the company has distributed 46.6 percent of its profits as dividend to its shareholders.
- The company has reserves and surplus of Rs. 43,856 crores for the financial year ended 2013 to 2014.

The financial risk to the company is very low as there are almost no debt obligations, and the source of funding is mostly shareholders' equity. But there are a few points that are to be considered about the Indian IT industry to make any inferences about these ratios on the company's solvency.

Box 9.1: Indian IT sector's leverage scenario

- The Indian IT industry is predominantly export oriented. It thrives on the contracts earned from foreign MNC's mostly from North America and Europe. In order to win these contracts, the company has to show good amount of cash surplus on its balance sheet and available manpower (human resources) to execute the contract. Hence, a high leverage ratio may drive out those contracts away from the company.
- The IT industry is transitioning from traditional linear model (time billing model and transaction model) to nonlinear model following the new boom of SMAC. There are tremendous opportunities in these new technology areas that will overhaul all the existing models in the near future. Hence, the companies have to constantly innovate to be in the business. In such scenarios, leveraging the company too much would not be a sound idea.

Given the aforementioned facts, we can infer that the current source of funding, that is, shareholders' equity, is proving very costly for the company and the company cannot afford to be highly leveraged either in that particular sector. It is giving almost half of its profits as dividends. TCS is not exercising the debt option at all even though it took a nominal amount of Rs. 100 crores each year as hike purchase loans. The company has high credibility (considering its history of debt) that the cost of debt shall be comparatively low. The Indian economy is on a recovery track with a GDP growth rate of 5.7 percent and the interest rates have been lowered.

However, considering the fact that the nature of industry is such that the company cannot afford to be highly leveraged due to ever-changing technology, the debt component can form a significant, if not the dominant, portion of the company's funding. Financial risk regarding the solvency shall be in safe limits even in that case.

Recommendations

As discussed in the Analysis section, the following key recommendations can be useful for TCS:

1. Increase the leverage ratio, that is, debt equity ratio to at least 0.2, if not more. The cost of equity is turning out to be very high compared to the cost of debt, and the cost of debt shall also be comparatively low.
2. The debt component should not go high (above 40 percent) as the industry is highly competitive and the technology causes creative destruction every couple of decades.
3. TCS has to constantly innovate to keep up with the technological changes. The company has invested over Rs. 1,000 crores in five innovation centers in India for digital five forces: social, media, analytics, cloud, and cyber. Each offers a whole new dimension to explore. The stupendous rise in the number of Internet and mobile users has provided humongous amount of data to process, and almost every company is seeking ways to tap these technologies to improve its efficiency.

Future Outlook

1. TCS has become the largest Indian company by market capitalization and is one of the largest cash cows in India.
2. The IT industry is a service industry with the precious assets being human capital. TCS has a very high retention rate of 88.7 percent, and it endeavors to keep them competitive and up to date by providing comprehensive training programs in various domains. With a huge demographic dividend at the disposal with aspiring young

minds at comparatively low cost, TCS is poised to keep this sustainable competitive advantage compared to other companies in the world.

3. Other investments in assets are not required in this sector. The other major aspect to be kept in mind is investment in R&D, which TCS is taking care of.
4. Hence, the solvency problem, or the financial risk of the company seems to be low at the moment. The cost of equity is high, with debt being minimal. The long-term prospects shall be upbeat as long as the company keeps investing in new technologies and comes up with innovative services.

Infosys

The solvency ratios calculated for Infosys can be summarized as follows.

As can be seen from Table 9.2, the leverage ratios for Infosys have been the lowest and nil for the past three annual periods. Each ratio can be analyzed as follows:

1. The *debt ratio* is almost *nil* for Infosys. This means that after considering all the liabilities (current and long term), the assets of the company are much more as compared to the liabilities. This shows that the company is in a good financial position in the long run.
2. *Debt equity ratio* shows that the long-term borrowings of the company are zero compared to the shareholders' equity. It means a low leverage and strong equity positioning. This shows that the company is funding all its operations (short term and long term) from the shareholder's funds as against the debt.

Table 9.2 Solvency ratios of Infosys

	2011–12	2012–13	2013–14
Debt ratio	0.021	0.026	0.031
Debt–equity ratio	0.00	0.00	0.00
Interest coverage ratio	—	—	—
Debt–service coverage ratio	—	—	—
Equity multiplier	1.22	1.20	1.26

3. The *interest coverage ratio* is not applicable for Infosys as there is no interest to pay because of no loans taken. This means that the company has no solvency problem in the long run.
4. *Debt service coverage ratio* is also not applicable for Infosys because of zero borrowings or interest payments.
5. The *equity multiplier* is around 1.2 to 1.3 for all the 3 years. This suggests that the company finances most of its activities from shareholders' equity rather than debt.

So,

- Infosys is sitting on a huge cash cow that is growing every year.
- It has funded most of its activities through shareholder's equity and focused very less on debt, which can be regarded as underutilization of the available resources.
- The financial risk to the company is very low as there are almost no debt obligations and the source of funding is mostly shareholder's equity.
- Also, considering the nature of industry, the company cannot afford to be highly leveraged due to ever-changing technology.

Recommendations

As discussed in the Analysis section, the following key recommendations can be useful for Infosys:

1. The company is missing prospect for expansion by neglecting the opportunity to magnify earning through leverage.
2. The company has potential to raise more debt capital as the cost of debt is lower than the cost of equity.
3. The debt component should not go high (above 40 percent) as the industry is highly competitive and the technology keeps changing continuously.

Future Outlook

1. Infosys is sitting on a huge pile of cash right now. It does not need any borrowings for its day-to-day activities.
2. However, it is better to invest some amount of the cash as it would be a good option to utilize the huge cash pile.
3. The solvency problem or the financial risk of the company seems to be low for the moment.
4. The cost of equity is high, with debt being minimal.
5. The long-term prospects shall be upbeat as long as the company keeps investing in new technologies and comes up with innovative services.

Note: Financial statements of both the companies are given under Annexure in the previous chapter.

PART VI

Market Ratios

CHAPTER 10

Concept of Market Ratios

The Present Chapter

This chapter discusses the concept of market–valuation ratios.

Market Performance

Every company strives to maximize the shareholders' value. The shareholders' value is directly linked to the market performance of a company. This becomes all the more important for publicly held company. The concept of "market performance" would be applicable for a listed company, wherein, retail shareholders' sentiments are involved.

1. **Book value per share**: It is a measure used by owners of common shares in a firm to determine the level of safety associated with each individual share after all debts are paid accordingly. It is defined as follows:

$$\text{Book value per share} = \frac{\text{Net worth}}{\text{Number of equity shares}}$$

   If the company decides to dissolve, the book value per equity indicates the rupee value remaining for equity shareholders after all assets are liquidated and all debtors are paid. In simple terms, it would be the amount of money that a holder of an equity share would get in case of liquidation of a company.

   This ratio is used as a tool for judging a particular share for long-term investment.

2. **Price-to-book ratio (P/B)**: It is used by investors to compare a stock's market value to its book value. It is a valuation ratio expressed as a multiple (i.e., how many times a company's stock is trading per

share compared to the company's book value per share), and is an indication of how much shareholders are paying for the net assets of a company. It is computed as follows:

$$\text{Price to book value} = \frac{\text{Market price per equity share}}{\text{Book value per equity share}}$$

The book value of a company is the value of its net assets expressed on the balance sheet. The price-to-book value ratio provides investors a way to compare the market value, or what they are paying for each share, to a conservative measure of the value of the firm.

For inference, a lower P/B ratio could mean that the stock is undervalued. However, it could also mean that something is fundamentally wrong with the company. As with most ratios, this varies with industry.

3. **Price-to-earnings eatio (P/E multiple)**: The price-to-earnings ratio, often called the P/E ratio, is a market prospect ratio that calculates the market value of a stock relative to its earnings by comparing the market price per share by the earnings per share. In other words, the price-to-earnings ratio shows what the market is willing to pay for a stock based on its current earnings. This ratio is widely used in the valuation of a company for short-term investments. It is defined as follows:

$$\text{Price to earnings} = \frac{\text{Market price per equity share}}{\text{Earnings per equity share}}$$

Hence, in simple terms, price-to-earnings ratio means how much an investor is ready to pay for one unit currency of profit.

Investors often use this ratio to evaluate what a stock's fair market value should be by predicting future earnings per share. Companies with higher future earnings are usually expected to issue higher dividends or have appreciating stock in the future.

4. **Du Pont analysis of ROE**: It is a method to analyze the ROE performance by breaking it down into three parts or ratios.

The *first part* is "net profit margin"; the *second part* is "asset turnover ratio"; and the *third part* is "financial leverage ratio." All these combined give ROE as follows:

$$\text{ROE} = \frac{\text{PAT}}{\text{Net worth}}$$

All these three ratios indicate which parameter needs to be tightened up and, accordingly, which decision is taken by the management regarding increasing profit, efficiency, or loans, respectively, for shareholders' wealth maximization, that is, ROE.

Box 10.1: Bird's eye view of market ratios

BV per share is expressed as Rs. per share.
P/B and P/E are expressed in number of times as they are multiples.

CHAPTER 11

Corporate Examples of Market Ratios

The Present Chapter

The analysis of the market ratios in the Indian construction sector has been approached here. A comparative analysis of the relevant ratios of the leading players in the sector, namely L&T and Punj Lloyd Ltd., has been done.

Indian Construction Sector

The construction industry of India is an important indicator of the development as it creates investment opportunities across various related sectors. It is critical for enhancing productive capacity of the economy in all the runs:

- *Short run*: it is a demand booster for various industries such as cement, steel, chemical, paints, tiles, fixtures, and fittings.
- *Long run*: boosts infrastructure capacity of the country.

Although the construction sector's growth has fallen as compared to the pre-2008 period, it has picked up in the recent past. Its share as a percentage of GDP has increased considerably as compared to the last decade. The total investment in infrastructure—which includes roads, railways, ports, airports, electricity, telecommunications, oil gas pipelines, and irrigation—is estimated to have increased from 5.7 percent of GDP in 2007 to around 8.0 percent by 2012. The Planning Commission of India has proposed an investment of around US$1 trillion in the twelfth five-year plan (2012 to 2017), which is double of that in the eleventh five-year plan.

The real estate industry comprising of construction and development of properties has grown from family-based entities with focus on single products and having one market presence into corporate entities with multicity presence having differentiated products. The industry has witnessed considerable shift from traditional financing methods and limited debt support to an era of structured finance, private equity, and public offering.

The construction sector is a major employment driver, being the second largest employer in the country, next only to agriculture. This is because of the chain of backward and forward linkages that the sector has with other sectors of the economy. About 250 ancillary industries such as cement, steel, brick, timber, and building material are dependent on the construction industry. A unit increase in expenditure in this sector has a multiplier effect and the capacity to generate income as high as five times. While long-term factors are likely to work in favor of the construction industry, the outlook for the short term remains uncertain. High interest rates and negative consumer sentiments continue to impact business. Also, the fact that banks have been turning cautious toward rescheduling debt or issuing fresh loans to construction companies is a dampener for the sector. The overall long-term risks also include increased prices of the essential raw materials like cement, bricks, and steel coupled with the increase in labor costs, which together make for almost 75 percent of overall construction cost. Liquidity is also another factor that will determine overall project execution.

Larsen & Toubro Ltd.

Larsen & Toubro (L&T) is a US$14 billion technology, engineering, construction, manufacturing, and financial services conglomerate, with global operations. L&T Construction is the construction arm of L&T. Ranked 28th among the top 225 global contractors by Engineering News Record in 2013, L&T Construction offers EPC solutions with single-source responsibility for executing large industrial and infrastructure projects from concept to commissioning. India's largest construction organization and ranked among the world's top 30 contractors,

the company's capabilities span the entire gamut of construction—civil, mechanical, electrical, and instrumentation engineering—and its services extend to all core sector industries and infrastructure projects.

L&T's international presence is increasing, with worksites in 20 countries that encompass South Asia, South East Asia, the Middle East, Russia, and CIS countries including African countries. Major projects undertaken by the company are Terminal 3 of the New Delhi airport, first monorail in Mumbai, and major infrastructure projects including ports and metro rail systems.

Punj Lloyd Ltd.

Punj Lloyd Ltd. is an engineering and construction group of India providing integrated design, procurement, and project management services for energy and infrastructure sector projects. Punj Lloyd Ltd. operations are located in the Middle East, Caspian region, Asia Pacific, Europe, Africa, and South Asia. Punj Lloyd Ltd. has 50+ subsidiaries and has executed upwards of 200+ projects in 120+ countries.

The company provides integrated design; engineering procurement construction; and maintenance and project management services in the oil and gas, energy, and infrastructure sectors. The company provides integrated design, EPC, and management services for infrastructure projects, including roads, highways, flyovers, bridges, elevated railroads, railways, underground tunnels, seaports, and airport terminals.

The company operates in four segments:

- Oil and gas
- Civil and infrastructure
- Petrochemicals
- Power.

Market Analysis

Following is the analysis of market valuation ratios of the aforementioned companies (Tables 11.1 and 11.2).

Table 11.1 Market ratios of L&T

	March 2012 (Rs. cr.)	March 2013 (Rs. cr.)	March 14 (Rs. cr.)
Share capital	122.48	123.08	185.38
Reserves	25,100.54	29,019.64	33,476.45
Net worth	25,223.02	29,142.72	33,661.83
Total assets	35,770.19	38,764.88	45,513.93
Financial leverage ratio	1.42	1.33	1.35
Assets turnover ratio	1.50	1.35	1.26
PAT	4,456.50	4,910.65	5,493.13
No. of shares	61,23,98,899	61,53,85,981	92,69,12,658
PAT margin (%)	8.29	9.41	9.61
ROE (%)	17.67	16.85	16.32
EPS (Rs. per share)	72.77	79.80	59.26

	March 2012	March 2013	March 2014
Book value (Rs. per share)	411.87	473.57	363.16
P/E ratio	11.97	11.40	21.48

Book Value per Share

The book value increased from March 2012 to March 2013 because of increase in profits for the year; although the number of shares has also increased, the proportion of increase in profits is greater than that of the number of shares. In March 2014, we saw a decline; it is primarily because of the increase in the number of shares, which is much more than the increase in profits for the year.

Price-to-Earnings Ratio

Due to the increase in the number of shares over three years, we see a continuous decline in EPS. There is also a steady increase in market price; thus we see the PE ratio rising. We see a decline in March 2013 because the proportionate increase in EPS is more than the proportionate increase in market price.

Table 11.2 Market ratios of Punj Lloyd Ltd.

	March 2012 (Rs. cr.)	March 2013 (Rs. cr.)	March 2014 (Rs. cr.)
Share capital	66.42	66.42	66.42
Reserves	3,740.09	3,781.80	3,683.99
Net worth	3,806.51	3,848.22	3,750.41
Total assets	8,184.31	8,916.24	9,104.11
Financial leverage ratio	2.15	2.32	2.43
Assets turnover ratio	0.72	0.94	0.90
PAT	57.66	19.62	7.81
No. of shares	3,32,095,745	3,32,095,745	3,32,095,745
PAT margin (%)	0.09	0.24	0.98
ROE (%)	0.23	0.51	1.51

	March 2012	March 2013	March 2014
Book value (Rs. per share)	114.62	115.88	112.93

Du Pont Analysis (For ROE)

ROE is falling, although there is continuous increase in net profit margin. The fall is due to the decrease in ATR and financial leverage ratio. The proportionate increase in assets (mainly investments, loans, and advances) is more than the proportionate increase in sales. Furthermore, due to the issue of equity shares in the financial year (FY) 2013 to 2014, we see a decline in the financial leverage ratio. The company has made significant investments in the past few years for expanding its facilities in various businesses. Increase in assets and issue of fresh capital has led to falling ROE.

Book Value per Share

Book value per share increased marginally in March 2013 from March 2012 due to slight increase in net worth of the company. However, in FY 2013 to 2014, book value per share reduced due to reduction in net worth of the company. Overall, the value of book value per share has not changed much during this span of three years.

Price-to-Earnings Ratio

It can be seen that the P/E ratio for Punj Lloyd Ltd. has been increasing continuously for the past three years. The market price of its shares dipped in 2013 to 2014 even though the P/E ratio continued to increase. This is due to the reduction in the net profits reported in the FY. If we look at the industry average, the P/E ratio comes out to be around 28. Hence, Punj Lloyd Ltd. has a very good P/E ratio. This shows positive market sentiments toward Punj Lloyd Ltd. Market expects huge growth from Punj Lloyd Ltd. in the near future. However, there is also a risk element of sector volatility. Hence, this stock has to be invested with caution as a case of high-risk, high-return investment.

Du-Pont Analysis (For ROE)

We can see that the ROE was the highest in 2011 to 2012. This is due to the high value of PAT that was reported in that FY, as a high value of PAT results in more ROE of shareholders' wealth. However, in 2013 to 2014, ROE falls due to decrease in PAT.

The average value of ROE for the construction industry is 3.62 percent. On seeing the variation of Punj Lloyd Ltd. over the years, we can say that it has lagged much behind the industry average in this regard.

Hence, to conclude, the market has high expectations from Punj Lloyd Ltd., as seen by the P/E ratio; but when we analyzed through ROE, we found that the return on this stock has been very low throughout the years. However, this may be due to the current problems that the construction sector is facing, which will improve in the near future. Hence, due to these factors, the market expects Punj Lloyd Ltd. to perform well in the near future.

Key Terms

- **Liquidity.** The firm's ability to meet its short-term financial obligations.
- **Solvency.** The extent to which the firm is able to pay interest and repay long-term loans as and when they are due.
- **Financial leverage.** The extent to which the firm is employing long-term debt and what is the degree of financial risk of the firm?
- **Gross profit.** The amount of profit left over from revenues after accounting for the cost of goods sold.
- **Operating profit (EBIT).** The amount of profit that a firm is able to generate after paying its office and selling expenses.
- **Financial management.** It is the process of procurement and allocation of funds and distribution of profits among shareholders.
- **Capex.** The investment in fixed assets is called as capital expenditure.
- **Working capital.** The amount of current assets to meet your current liabilities.
- **Financial structure.** It is total amount of funds of a business organization.
- **Operating efficiency.** The ability of a firm to generate output from its inputs.
- **Cash conversion cycle.** The number of days that the company takes to convert resource inputs into cash flows.

Review Questions

1. What is meant by financial statements analysis? Discuss.
2. Why are financial ratios considered an important technique of financial statement analysis?
3. How are financial ratios classified? Discuss the different types of financial ratios.
4. "Financial ratios are not free from limitations." What are the various limitations of financial ratios?
5. "There is no universal definition of financial ratios." How far is it correct?
6. "Financial ratios are historical in nature." Explain.
7. "The use of financial ratios changes with the country of application." Do you agree?
8. "Profitability ratios are used to analyze the profit capacity of the firm at different levels." Explain.
9. Discuss the various margin ratios and return ratios of profitability.
10. "PAT margin is not always the real indicator of the profitability of a business." Do you agree?
11. "The management of every organization is concerned with ROI." Elaborate.
12. "The efficiency in utilization of resources in an organization is judged by turnover ratios." Justify.
13. "Receivables and payables are the two sides of the same coin that determine the efficiency of the operating cycle." Explain.
14. "No organization can survive without adequate amount of liquidity." Comment.
15. "Higher the financial leverage, greater the risk of a business." Explain.
16. Which sector is considered as the lowest leverage sector and why?
17. "Cash ratio is the best ratio of liquidity." Prove.
18. Which is the ultimate solvency ratio used by the lending institutions to determine the paying capacity of a business?

19. "The market trend of the firm is analyzed by the P/E multiple." Explain.
20. "Book value per share examines the prospects for future growth of a business." Justify.

Test Yourself—Problems and Solutions

Q 1. Following are the financial statements of AB Ltd. for 2010.

Balance sheet ($ in millions)

Assets	2010	Liabilities and owners' equity	2010
Current assets:		*Current liabilities:*	
Cash	200	Accounts payable	400
Accounts receivable	500	Bills payable	100
Inventory	400	**Total current liabilities**	500
Total current assets	1,100	Long-term liabilities:	
		Long-term debt	200
Fixed assets:		Total long-term liabilities	200
Property, plant, and equipment	2,400	*Shareholders' funds:*	
Less: Accumulated depreciation	2,100	Equity share capital ($1 per share)	200
Net fixed assets	300	Reserves & Surplus	500
		Total owners' equity	700
Total assets	1,400	**Total liability and owners' equity**	1,400

Income statement ($ in millions)

	2010
Sales	3,400
Cost of goods sold	1,200
Office and selling expenses	600
Depreciation	102
Earnings before interest and taxes	1,498
Interest expense	10
Earnings before taxes	1,488
Taxes	607
Net income	881
Dividends	635
Transfer to reserves and surplus	246
Other information	
Number of shares Outstanding (millions)	200
Price per share	7.31

From the aforementioned table, calculate the following:

1. Current ratio
2. Liquid ratio
3. Receivables turnover ratio and collection period
4. Inventory turnover and holding period
5. Fixed assets turnover
6. Total assets turnover
7. Debt ratio
8. D/E ratio
9. Interest coverage ratio
10. PAT margin
11. ROA

12. ROE
13. EPS
14. D/P ratio
15. P/E ratio
16. Book value per share

Solution:

1. *Current Ratio*
   The current ratio is 2.2.

$$\text{Current ratio} = \frac{\text{Total current assets}}{\text{Total current liabilities}}$$

   where:
   Total current assets = $1,100
   Total current liabilities = $500

2. *Liquid ratio*
   The liquid ratio is 1.4.

$$\text{Quick ratio} = \frac{\text{Total current assets} - \text{Inventory}}{\text{Total current liabilities}}$$

   where:
   Total current assets = $1,100
   Inventory = $400
   Total current liabilities = $500

3. (*a*) *Receivables turnover ratio*
   The receivables turnover ratio is 6.8 times.

$$\text{Receivables turnover} = \frac{\text{Sales}}{\text{Accounts receivable}}$$

   where:
   Sales = $3,400
   Accounts receivables = $500

(*b*) *Collection period (days)*

The days' receivables is 53.68 days.

$$\text{Days' receivables} = \frac{365}{\text{Receivables turnover}}$$

where:

Receivables turnover ratio = 6.8 times (from the aforementioned table).

4. (*a*) *Inventory turnover*

The inventory turnover is 3 times.

$$\text{Inventory turnover} = \frac{\text{COGS}}{\text{Inventory}}$$

where:

COGS = $1,200

Inventory = $400

(*b*) *Holding period (days)*

The days' inventory is 121.67 days.

$$\text{Days' inventory} = \frac{365}{\text{Inventory turnover}}$$

where:

Inventory turnover = 3 times (from above).

5. *Fixed assets turnover ratio*

The fixed assets turnover ratio is 11.33 times.

$$\text{Fixed assets turnover ratio} = \frac{\text{Sales}}{\text{Net fixed assets}}$$

where:

Sales = $3,400

Net fixed assets = $300

6. *Total assets turnover ratio*

The total assets turnover ratio is 2.43 times.

$$\text{Total assets turnover ratio} = \frac{\text{Sales}}{\text{Total assets}}$$

where:

Sales = $3,400

Total assets = $1,400

7. *Debt ratio*

The debt ratio is 0.5

$$\text{Debt ratio} = \frac{\text{Total debt}}{\text{Total assets}} = \frac{\text{Total assets} - \text{Total owners' equity}}{\text{Total assets}}$$

where:

Total assets = $1,400

Total owners' equity = $700

Note: Total debt is computed by subtracting total owners' equity from total assets, or it can be directly taken from the balance sheet.

8. *D/E ratio*

The D/E ratio is 1.

$$\text{D/E ratio} = \frac{\text{Total debt}}{\text{Total owners' equity}} = \frac{\text{Total assets} - \text{Total owners' equity}}{\text{Total owners' equity}}$$

where:

Total assets = $1,400

Total owners' equity = $700

9. *Interest coverage ratio*

The interest coverage is 149.8 times.

$$\text{Times interest earned ratio} = \frac{\text{EBIT}}{\text{Interest expense}}$$

where:
EBIT = $1,498
Interest expense = $10

10. *Net Profit margin*
The net profit margin is 25.91%.

$$\text{Net profit margin} = \frac{\text{Net income}}{\text{Sales}}$$

where:
Net income = $881
Sales = $3,400

11. *ROA*
The ROA is 62.93%.

$$\text{ROA} = \frac{\text{Net income}}{\text{Total assets}}$$

where:
Net income = $881
Total assets = $1,400

12. *ROE*
The ROE is 125.86%.

$$\text{ROE} = \frac{\text{Net income}}{\text{Total owners equity}}$$

where:
Net income = $881
Total owners' equity = $700

13. *EPS*
The EPS is $4.41.

$$\text{EPS} = \frac{\text{Net income}}{\text{Number of shares outstanding}}$$

where:
Net income = $881
Number of shares outstanding = 200

14. *Dividend payout ratio*
The payout ratio is 72.08%.

$$\text{Payout ratio} = \frac{\text{Dividends paid}}{\text{Net income}}$$

where:
Net income = $881
Dividends = $635

15. *PE ratio*
The P/E is 1.66.

$$\text{P / E ratio} = \frac{\text{Price per share}}{\text{Earnings per share}}$$

where:
Price per share = $7.31
EPS = $4.41

16. *Book value per share*
The book value per share is $3.5.

$$\text{Book value per share} = \frac{\text{Total owners' equity}}{\text{Number of shares outstanding}}$$

where:
Total owners' equity = $700
Number of shares outstanding = 200

Q 2. You have been appointed as financial analyst for Universal Bank and you have to evaluate the financial performance of Fresh Food Ltd. (FFL). FFL is a firm that specializes in the production of green vegetables in India. Your assistant has provided you with the following data for FFL and their industry.

Ratio	2014	2013	2012	2014—industry average
Long-term debt	0.45	0.40	0.35	0.35
Inventory turnover	62.65	42.42	32.25	53.25
Depreciation/total assets	0.25	0.01	0.02	0.02
Days' sales in receivables	113	98	94	130.25
Debt to equity	0.75	0.85	0.90	0.88
Profit margin	0.08	0.07	0.06	0.08
Total asset turnover	0.54	0.65	0.70	0.40
Quick ratio	1.03	1.03	1.03	1.03
Current ratio	1.33	1.21	1.15	1.25
Interest coverage	0.9	4.38	4.45	4.65
Equity multiplier	1.75	1.85	1.90	1.88

1. In the annual report to the shareholders, the CEO of FFL wrote, "2012 was a good year for the firm with respect to our ability to meet our short-term obligations. We had higher liquidity largely due to an increase in highly liquid current assets (cash, account receivables and marketable securities)." Is the CEO correct? Explain.
2. What is your opinion on the firm's asset management?
3. Comment on the firm's solvency and leverage.

Answer:

1. Current and quick ratios are relevant here. While the current ratio has steadily increased, it is to be noted that the liquidity has not resulted from the most liquid assets (LA) as the CEO opines. Instead, from the quick ratio, one can observe that the increase in liquidity is caused by an increase in inventories. For a fresh food firm, it is known that inventories are relatively liquid when compared to other industries. Also, looking at the industry bench mark, one can derive

that the firm's quick ratio is very similar to the industry level and that the current ratio is indeed slightly higher—again, this seems to come from inventories.

2. Inventory turnover, days' sales in receivables, and the total asset turnover ratio are significant here. Inventory turnover has increased over time and is now above the industry average. This is good—especially given the fresh food nature of the firm's industry. In 2014, every 365/62.65 = 5.9 days, the firm is able to sell its inventories as opposed to the industry average of 6.9 days. Days' sales in receivables have declined with time, but are still better than the industry average. So, while they are able to rotate inventories quickly, they seem to have problem in collecting from these sales, although they are doing better than the industry. Finally, total asset turnover has gone down over time, but it is still higher than the industry average. So, there seems to be a potential problem in the firm's long-term investments, but again, they are still doing better than the industry.
3. Solvency and leverage are judged by an analysis of the capital structure of the firm and the firm's ability to pay interest. *Capital structure:* Both the equity multiplier and the D/E ratio tell us that the firm has become less levered. To get a better idea about the proportion of debt in the firm, we can analyze the D/E ratios: 2014: 0.9, 2013: 0.85, and 2012: 0.75 and the industry-average is 0.88. So based on this, it is clear that the firm's leverage is around the industry leverage and rather they are on a declining spree of leverage. In terms of the firm's ability to pay interest, 2014 looks pretty bad. However, remember that interest coverage uses EBIT for determining the ability to pay for interest, while we know that the cash flow is a better measure for the same, instead of earnings. Based on a relatively large amount of depreciation in 2014, it seems that the firm is doing ok.

Q 3. From the data given below, calculate:

1. Gross profit (GP) ratio
2. Net profit ratio
3. Return on total assets
4. Inventory turnover
5. Working capital turnover

Particulars	Amount $	Particulars	Amount $
Sales	25,20,000	Other current assets	7,60,000
Cost of sales	19,20,000	Fixed assets	14, 40,000
Net profit	3,60,000	Net worth	15,00,000
Inventory	8,00,000	Debt	9,00,000
Current liabilities	6,00,000		

Solution:

1. $GP\ ratio = \left(\frac{\text{GP}}{\text{Sales}}\right) * 100 = 23.81\%$

Sales – Cost of sales = GP

25,20,000 – 19,20,000 = 6, 00,000

2. $Net\ profit\ ratio = \left(\frac{\text{NP}}{\text{Sales}}\right) * 100 = 14.29\%$

3. $Inventory\ turnover\ ratio = \left(\frac{\text{COGS}}{\text{Inventory}}\right)$

$$= \frac{19,20,000}{8,00,000} = 2.4 \text{ times}$$

4. $Return\ on\ total\ assets = \frac{\text{NP}}{\text{Total assets}}$

$$= \left(\frac{3,60,000}{30,00,000}\right) * 100 = 12\%$$

(FA + CA + Inventory [14,40,000 + 7,60,000 + 8,00,000] = 30,00,000)

5. $Working\ capital\ turnover = \frac{\text{Turnover}}{\text{Working capital}}$

$$\text{Working capital turnover ratio} = \frac{25,20,000}{9,60,000} = 2.63 \text{ times.}$$

Working capital = Current assets – Current liabilities

= 8,00,000 + 7,60,000 – 6,00,000

15,60,000 – 6,00,000 = 9,60,000

Q 4. The following table is the balance sheet of Master's Ltd. You are required to compute the following ratios.

1. Liquid ratio
2. D/E ratio
3. Stock of working capital ratio

Balance Sheet

Liabilities	Amount $	Assets	Amount $
Equity share capital	15,00,000	Fixed assets	1400000
Reserves	1,00,000	Stock	500000
6% Public deposits	300,000	Receivables	200000
Overdraft	1,00,000	Cash	100000
Payables	2,00,000		
	22,00,000		22,00,000

Solution:

1. $\text{Liquid ratio} = \dfrac{\text{LA}}{\text{Current liabilities}}$

LA = Receivables + Cash = 3,00,000

$$\text{Liquid ratio} = \frac{3,00,000}{2,00,000} = 1.5$$

2. $D/E ratio = \dfrac{\text{External funds}}{\text{Equity}}$

External funds: All outsiders loan including current liabilities

3,00,000 + 1,00,000 + 2,00,000 = 6,00,000

Equity: It Includes shareholders' funds + reserves

15,00,000 + 1,00,000 = 16,00,000

$$\text{D/E ratio} = \frac{6,00,000}{1,600,000} = 0.38$$

3. $\textit{Stock of working capital ratio} = \dfrac{\text{Stock}}{\text{Working capital}}$

Working capital = Current assets – Current liabilities
= 8,00,000 – 3,00,000 = 5,00,000

$$\text{Stock of working capital ratio} = \frac{5,00,000}{5,00,000} * 100 = 100\%$$

Q 5. The balance sheet of Wellness & Co. as on 31.3.2010 is shown as follows:

Liabilities	Amount $	Assets	Amount $
Equity capital	1,00,000	Fixed assets	1,80,000
15% preference shares	50,000	Inventory	25,000
12% debentures	50,000	Accounts receivables	55,000
Reserves	20,000	Bills receivable	3,000
Payables	45,000	Bank	2,000
	2,65,000		**2,65,000**

Comment on the solvency and liquidity of the company.

Solution:

$$\text{D/Eratio} = \frac{\text{Long-term debt}}{\text{Equity}}$$

Long-term debt = Debentures
= 50,000
Shareholder's fund = Equity + Retained earnings
= 1,00,000 + 20,000
= 1,20,000
D/E ratio = 0.42

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

Current assets = Inventory + Accounts receivables + Bills receivables + Bank
= 25,000 + 55,000 + 3,000 + 2,000 = 85,000

$$\text{Current ratio} = \frac{85,000}{45,000}$$
$$= 1.89$$

Liquid Ratio = LA/85,000 = 1.88

LA = Accounts receivables + Bills receivables + Bank

= 55,000 + 3,000 + 2,000 = 60,000

$$\text{Liquid ratio} = \frac{60,000}{45,000} = 1.33$$

Q 6. From the following details of a trader you are required to calculate:

(i) Rate of stock turnover

(ii) Percentage of GP to turnover

Particulars	Amount $	Particulars	Amount $
Sales	33,984	Stock at the close at cost price	1,814
Sales returns	380	G.P. for the year	8,068
Stock at the beginning at cost price	1,378		

Solution:

(i) $$\text{Stock turnover} = \frac{\text{Sales}}{\text{Average stock}}$$

$$\text{Average stock} = \frac{\text{Opening stock} + \text{Closing stock}}{2}$$
$$= \frac{1,378 + 1,814}{2}$$
$$= 1,596$$

$$\text{Net sales} = \text{Sales} - \text{Sales returns}$$
$$= 33{,}984 - 380 = 33{,}604$$

$$\text{Stock turnover ratio} = \frac{33{,}604}{1{,}596}$$
$$= 21.06 \text{ times}$$

$$\text{(ii) Percentage of GP to turnover} = \frac{\text{GP}}{\text{Sales}} * 100$$
$$= \frac{8{,}068}{33{,}604} * 100$$
$$= 24.01\%$$

Q 7. Calculate the operating ratio from the following figures.

Items	($ in millions)
Sales	17,874
Sale returns	4
Other incomes	53
Cost of sales	15,440
Office and selling expenses	1,843
Depreciation	63
Interest expenses	456

Solution:

$$\text{Operating ratio} = \frac{\text{Cost of goods sold} + \text{Operating expenses}}{\text{Sales}} * 100$$
$$= \frac{15{,}440 + 1{,}843}{17{,}870} * 100$$
$$= 97\%$$

Q 8. Following are the financial statements of New Age Ltd. for 2000.

Profit and loss account for the year ended March 31, 2000

Particulars	Amount (in $)	Particulars	Amount (in $)
To salaries	78,00,000	By gross profit	2,77,00,000
Stationery	2,00,000	Profit on sale of fixed assets	50,000
Telephone	20,000	Interest from investments	18,00,000
Electricity and water	50,000	Miscellaneous income	20,000
Promotional expenses	1,20,000		
Distribution	3,00,000		
Depreciation on office equipment	80,000		
Interest on loan	16,00,000		
Interest on debentures	22,00,000		
Tax provision	50,00,000		
Loss on sale of fixed assets	10,000		
Goodwill written off	20,000		
Net profit	1,21,70,000		
	2,95,70,000		**2,95,70,000**

Balance sheet as on 31.3.2000

Liabilities	Amount (in $)	Assets	Amount (in $)
Equity share capital	120,00,000	Good will	30,00,000
(Share of $10 each)		Fixed assets (net)	412,00,000
8% Preference share capital	50,00,000		
General reserve	50,00,000	*Investment:*	
Profit and loss balance	20,00,000	Trade investments	100,00,000
10% debentures	220,00,000	Non trade investments	50,00,000
16% short-term loan	100,00,000	Inventories	50,00,000
Sundry creditors	80,00,000	Sundry debtors	20,00,000
Tax provision	25,00,000	Cash and bank	3,00,000
	6,65,00,000		**6,65,00,000**

Find out ROI.

Solution:

	Amount (in $)	Amount (in $)
Return: Net profit		121,70,000
Add: Interest on debentures		22,00,000
Add: Nonoperating expenses – Loss on sale of fixed assets		10,000
		143,80,000
Less: Nonoperating income: Profit on sale of fixed assets	50,000	
Interest/Dividend from non-trade investments	60,00,000	
Miscellaneous income	20,000	60,70,000
Return:		137,10,000
Capital employed:		
Equity share capital	120,00,000	
8% Pref. share capital	50,00,000	
General reserve	50,00,000	
Profit and loss account	20,00,000	
10% debentures	220,00,000	460,00,000
Less: Non-trade investments		50,00,000
		410,00,000

$$\text{ROI (post-tax)} = \frac{\text{Return}}{\text{Capital employed}} \times 100$$

$$= \frac{137,10,000}{410,00,000} \times 100 = 33.44\%$$

$$\text{Return on investments (pre-tax)} = \frac{\text{Return + Tax provision}}{\text{Capital employed}} \times 100$$

$$= \frac{137,10,000 + 50,00,000}{410,00,000} \times 100 = 45.63\%$$

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