

MEASURING FINANCIAL PERFORMANCE BY LEVERAGE ANALYSIS

Authors: Dr. Sagar R. Dave

*Associate Professor, Department of Accountancy
JG College of Commerce,
Ahmedabad*

INTRODUCTION

The pharmaceutical industry is one such industry where capital plays a very crucial role. At every stage in a pharmaceutical industry, i.e., at the stage of research and development of new medicines, testing of medicines, production of medicines on commercial basis, marketing and sales, and so on, capital needs to be employed. Since this human made factor of production can take different physical forms, it is usually measured in terms of the amount of money invested by a firm in purchasing different types of machinery. Since large amounts of funds are required for investment in the capital of a pharmaceutical firm, the firms usually rely on different forms of capital. These include various types of equity, such as ordinary shares, preference shares and debentures; and also borrowed capital (debt), which includes secured and unsecured loans. The proportion of different types of capital employed by a firm defines its capital structure. The composition of a firm's capital structure reveals a lot of aspects relating to the firm, such as:

- The risk taking ability,
- The profitability,
- The current and future expansion and diversification plans of the firm,
- The scale of operations, and so on.

OBJECTIVES OF THE PAPER

“Analysis of capital structure of a pharmaceutical company (Sun Pharmaceutical Industries Limited) for a period of five years from 2012 to 2016.”The objectives of the study are as follows:

1. To examine the conditions prevailing in the pharmaceutical industry.
2. To examine the capital structure, i.e. financing pattern, adopted by Sun Pharmaceutical Industries Limited (SUNPHARMA).
3. To examine the trend of financial items of financial statements (i.e. the Income Statement and the Balance Sheet) during the period under study.
4. To examine the trend of different ratios.
5. To examine the profitability and financial solvency of the company through analysis of capital structure.
6. To examine the growth of the company with reference to its profitability and financial solvency during the period of study.

METHODOLOGY OF THE PAPER:

The paper is based on the analysis of the data pertaining to the capital structure and various financial ratios of a sample firm within the Indian pharmaceutical industry over a period of last five financial years, viz. 2012 through 2016. In particular, the following points are to be noted regarding the research methodology adopted

Sample Selection: Out of the many public limited companies belonging to the Indian pharmaceutical industry, one company, namely Sun Pharmaceutical Industries Limited, is selected for the present research work.

Period: The research is carried out for a period of five financial years ending on March 2012 to March 2016. This is to ensure adequate comparison of the trends in the financing pattern adopted by the company.

Data collection: Both types of data have been used for the study:

Primary data, which have been obtained by verbal conversations with the related people of the company. Secondary data, which have been obtained from the following sources: Published Annual reports of the company for the financial years 2011-2012 to 2015-2016. Economic and Financial journals like The Journal of Finance, The Journal of Financial Economics, etc. Website of the company: www.sunpharma.in other websites like www.ssrn.com www.googlesearch.com www.moneycontrol.com Data Analysis: Two types of data analysis techniques have been used for the study: Analysis of Sources of finance Ratio analysis technique

PRESENCE IN INTERNATIONAL MARKET:

Indian multinational companies like Dr. Reddy's Lab, Cipla, Ranbaxy, etc. have created awareness about the Indian market prospects in the international pharmaceutical market. Approvals given by Foods and Drugs Administration (FDA) and ANDA (Abbreviated New Drug Application)/DMF (Drug Master File) have played an important role in making India a cost-effective and high quality product manufacturer. Furthermore, the changes that took place in the patent law, change of process patent to product patent, have helped in reducing the risk of loss for intellectual property.

TABLE 2.1: FDA ANDA Approvals for Indian Companies

Year	Number
2009	21
2010	26
2011	25
2012	52
2013	74
2014	124
2015	134
Q1 2016	50

Source: Holmes, Karen. 2016. *The Indian Pharmaceutical Industry: Diversification, Expansion & Ambitions*. Accessed from https://www.espicom.com/prodcat.nsf/Product_ID_Lookup/00001851?OpenDocument on 29 November 2016.

Geographically, the key markets for the Indian industry are India, the US, Europe, Russia and the former CIS countries, Africa and Latin America, particularly Brazil. Some companies have also begun to gain generic approvals in Australia. In the future, Japan and other Asian markets are likely to be added to this list.

The availability of a significant number of high value products has to be seen in the context of the US market. Indian companies are becoming increasingly active in the US market. In the years 2009, 2010 and 2011, the FDA approved 21, 26 and 25 ANDAs respectively for Indian pharmaceutical companies and their US subsidiaries. However, in 2012, the number increased to 52 and has been increasing year-on-year since, to reach 134 in 2015. In the first quarter of 2016, Indian companies had achieved 50 ANDA approvals, suggesting the pace is still increasing.

STRATEGY ADOPTED BY INDIAN PHARMACEUTICAL FIRMS:

Over the last few years, a growing number of 'authorized generic' agreements have been evident in the US and most branded companies have issued them in order to take sales and profits away from 'hostile' generic competition. While there is currently nothing to stop a branded company from issuing a licensed generic during the period of 180 days exclusivity, it has been argued that authorized generics are counter to the spirit of Hatch-Waxman, and devalue the 180-day exclusivity period by destroying the incentive for generic companies to challenge patents. Certainly some Indian companies such as Ranbaxy and Dr. Reddy's have been quick to exploit this opportunity, and the new products coming up, combined with their experience, will make them well placed to develop this area further.

Indian companies have adopted different strategies in order to penetrate regulated generics markets. Some have entered these markets through partnerships with established generic companies; others have set up their own sales and marketing organizations, either organically or through acquisitions.

A number have gone one stage further and acquired manufacturing bases in their target markets. Ranbaxy acquired Ohm Laboratories in the US in 1995, providing the company with an entry into the US market. Jubilant Organosys acquired US generic company Cadista Pharmaceuticals (formerly Trigen Laboratories) in 2012. Aurobindo Pharma acquired an FDA-compliant formulations manufacturing plant in Dayton, New Jersey in 2013. Dr. Reddy's has MHRA-approved manufacturing facilities in the UK. Wockhardt has manufacturing facilities in the UK, Ireland and France. Even competition is not new to Indian pharmaceutical companies. The Indian market is highly competitive with more than 300 organised players and branded promotional costs associated with every product, yet the industry is able to offer low-priced products and remain profitable in India. This provides Indian industry an edge over the other multinationals in the fast expanding international market in the current economic climate.

The above discussion suggests that pharmaceuticals hold an important position in the Indian industrial sector. Not only that, it is a mixture of indigenous firms as well as large multinationals operating in India through their subsidiaries or in collaboration with Indian firms. The operations of Sun Pharmaceutical Industries Limited have also gained a major foothold in a span of almost three decades. In this context, it would be interesting to analyze the changes in the capital structure of the company. The next chapter focuses on some important theories which can be used to analyze the capital structure of a company.

CONCEPT OF CAPITAL STRUCTURE:

The term capital structure is used to indicate acquisition of long term finance and maintaining it for running business activity. In order to run and manage a company efficiently, funds are needed at every stage, so finance is considered to be an indispensable part of business. Right from the promotional stage up to the end of sale of the produce, finance plays an important role for any

company. If funds are inadequate, the business suffers, and if the funds are not managed properly, the entire organization suffers. From the promotional activity till maintaining working capital cycle company needs continuous flow of funds. If the sources and application of funds are managed properly, the business can flourish well. Shortage of long term funds may affect capital decisions of the company; likewise, shortage of working capital can create problems in managing the company's day to day operations. This is the reason why analysis of any company's capital structure is a very crucial, and a continuously ongoing process.

Components of capital structure:

There are three major components of capital of a company. These include equity shares, preference shares and debentures. A mix of these can yield four combinations of capital structure for a company as shown in chart 3.1.

Capital Structure of a company refers to the makeup of its capitalization, i.e. the type of securities to be issued and the relative proportion of each type of security in the total capitalization. In general circumstances any organization formulates capital structure well in advance and raises funds as required according to their pre-determined plan. But when a company is experienced, it may change its capital structure considering the existing financial market scenario and factors affecting to capital structure. A financial executive or manager determines the proper capital structure for company. He determines the mix of equity and debt securities, which would maximize the value of the equity shares. Some companies fail to plan their capital structure appropriately and therefore they may not flourish and can have financial growth in a short period of time, but in a long period, they find many difficulties in raising funds and subsequently fail to optimize the use of their funds. Therefore, capital structure planning is the key to the objective of wealth maximization, ensuring the minimum cost of capital and the maximum rate of return to equity holders.

TABLE 3.1: CAPITAL STRUCTURE OF SUNPHARMA

Amount in Rs. Crore	Mar ' 16	Mar ' 15	Mar ' 14	Mar ' 13	Mar ' 12
Sources of funds					
Owner's fund					
Equity share capital	103.56	103.56	96.70	92.87	92.76
Share application money	-	-	-	-	0.01
Preference share capital	-	-	1.37	1.40	1.40
Reserves & surplus	5,047.86	4,104.06	2,351.42	1,370.67	1,011.28
<i>Of which, Retained earnings</i>	<i>2,072.59</i>	<i>1,430.16</i>	<i>870.86</i>	<i>604.00</i>	<i>423.50</i>
Loan funds					
Secured loans	23.60	22.88	20.39	18.23	13.92
Unsecured loans	-	79.64	1,047.76	1,727.59	1,800.73
Total	5,175.02	4,310.14	3,517.64	3,210.76	2,920.10

The above discussion implies that analysis of capital structure is an essential to understand the short term as well as the long term function style of a company. A company usually mixes different types of capital depending on its business strategy. The data relating to the capital structure of Sun Pharmaceutical Industries Limited also reveals the same. The next chapter deals with the discussion of various ratios used to understand the performance of a company.

COMPANY'S PREFERENCE FOR DEBT OR EQUITY:

Keeping in mind the company's resource requirements and risk taking ability, it opts for raising finances either through the equity market or through the debt market.

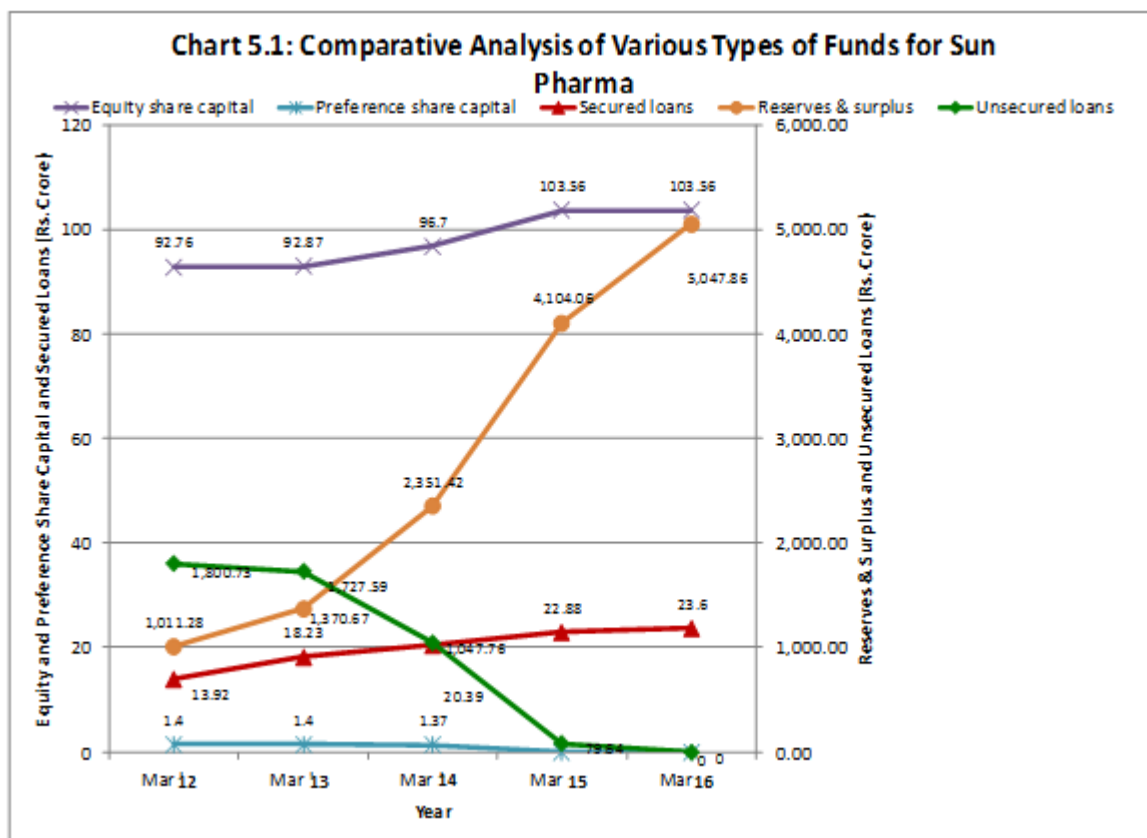
The choice between debt and equity assumes significance for finance managers in a private sector company due to the fact that their decisions are expected to maximize wealth for shareholders. Debt, i.e., capital borrowed from various financial institutions like banks and industrial finance corporations, is considered to be cheaper, but it is likely to eat away profit and impose a high interest burden on the company. Moreover, with the increase in the risk involved in doing any business, financial institutions are often reluctant to grant loans to companies at low interest rate, in spite of the fact that the general interest rates may be showing a declining trend.

On the other hand, raising finance through the equity market is riskier. Of course, there are various levels of risks attached to various types of equity. Thus, it becomes crucial for a company to strike the right combination between high risk equity, i.e., ordinary shares, medium risk equity, i.e., preference shares and low risk equity, i.e., debentures. This balance also depends on the risk taking ability of the company, and different companies follow different proportions.

Data on Various Types of Funds Raised by Sun Pharma

Amount in Rs. Crore	Mar ' 12	Mar ' 13	Mar ' 14	Mar ' 15	Mar ' 16
Sources of funds					
Owner's fund					
Equity share capital	92.76	92.87	96.7	103.56	103.56
Preference share capital	1.4	1.4	1.37	-	-
Reserves & surplus	1,011.28	1,370.67	2,351.42	4,104.06	5,047.86
Loan funds					
Secured loans	13.92	18.23	20.39	22.88	23.6
Unsecured loans	1,800.73	1,727.59	1,047.76	79.64	-

Table 5.1 and chart 5.1 show the comparative analysis of various types of funds raised by Sun Pharma during the last five years. It can be observed that the company relies more on its own reserves and surplus and unsecured loans, which are also usually short term loans. It has gradually increased its equity share capital, while the preference share capital has been marginal and paid up by the end of the financial year 2015. The amount of secured loans is less than the amount of equity share capital, but it has increased over the last five years.



SOURCES OF FINANCE:

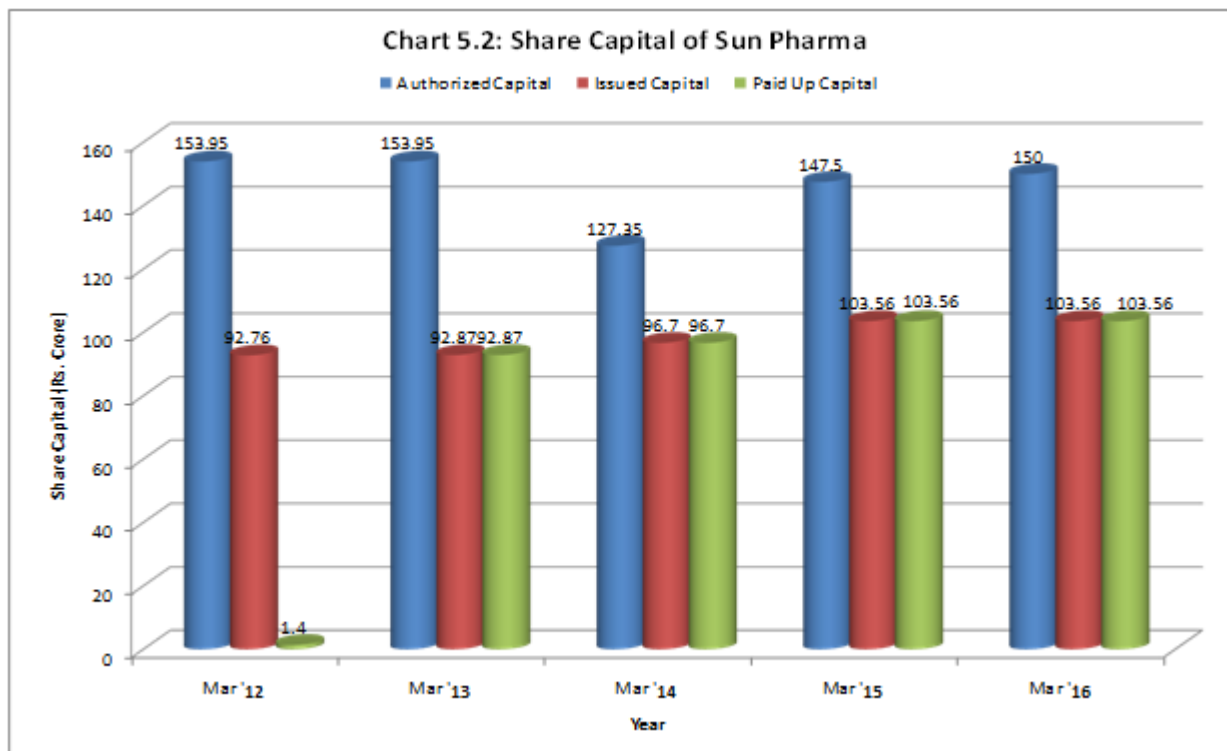
Out of the many sources of finance available, Sun Pharma has mainly used reserves and surplus and short term unsecured loans as the major sources of finance. The company relies less on equity shares and secured loans as the source of finance. Nevertheless, it has raised finance through equity shares as well.

A) Issue of Equity Shares:

Table 5.2: Authorized and Paid Up Capital of Sun Pharma

Amount in Rs. Crore	Mar ' 12	Mar ' 13	Mar ' 14	Mar ' 15	Mar ' 16
Authorized Capital	153.95	153.95	127.35	147.5	150
Issued Capital	92.76	92.87	96.7	103.56	103.56
Paid Up Shares (No.s)	14030430	185731637	193402120	207116391	207116391
Paid Up Face Value	1	5	5	5	5
Paid Up Capital	1.4	92.87	96.7	103.56	103.56

Equity share capital is the most important element of the capital structure. During the five years under study, the equity share capital increased gradually. Table 5.2 and chart 5.2 show the changes taking place in the share capital of the company on an annual basis during the last five years.



The current authorized equity share capital of the company is Rs.150 cores divided into 20.71 crore equity shares of Rs.5 each. During the year ending March 2012, equity shares of Rs.1/- were issued, and though authorized capital was Rs.153.95 crores and issued capital was Rs.92.76 crore, paid up capital was only Rs.1.4 crore. Thus, the paid up capital was very negligible proportion of the authorized capital, or even the issued capital. This situation changed since 2013, when the amount of the paid up capital became exactly equal to the amount of issued capital. Although it may be noted that the amount of issued capital has been less than the amount of authorized capital. The face value of the paid up equity shares increased to Rs. 5 and the base of equity shares expanded as well.

There have not been any new issues since 2015, and the amount of paid up capital has stabilized at Rs. 103.56 crore, which is 69.04 per cent of the authorized capital.

Preference Share Capital:

The company had a preference share capital of Rs.1.4 crore in the 2011-2012 and in 2012-2013, which decreased to 1.37 crore in 2013-2014, as it is evident from table 5.1.

After that the company has redeemed its preference share capital and company has then not used preference shares as the base of its capital structure, but company kept equity shares as the source of raising finance.

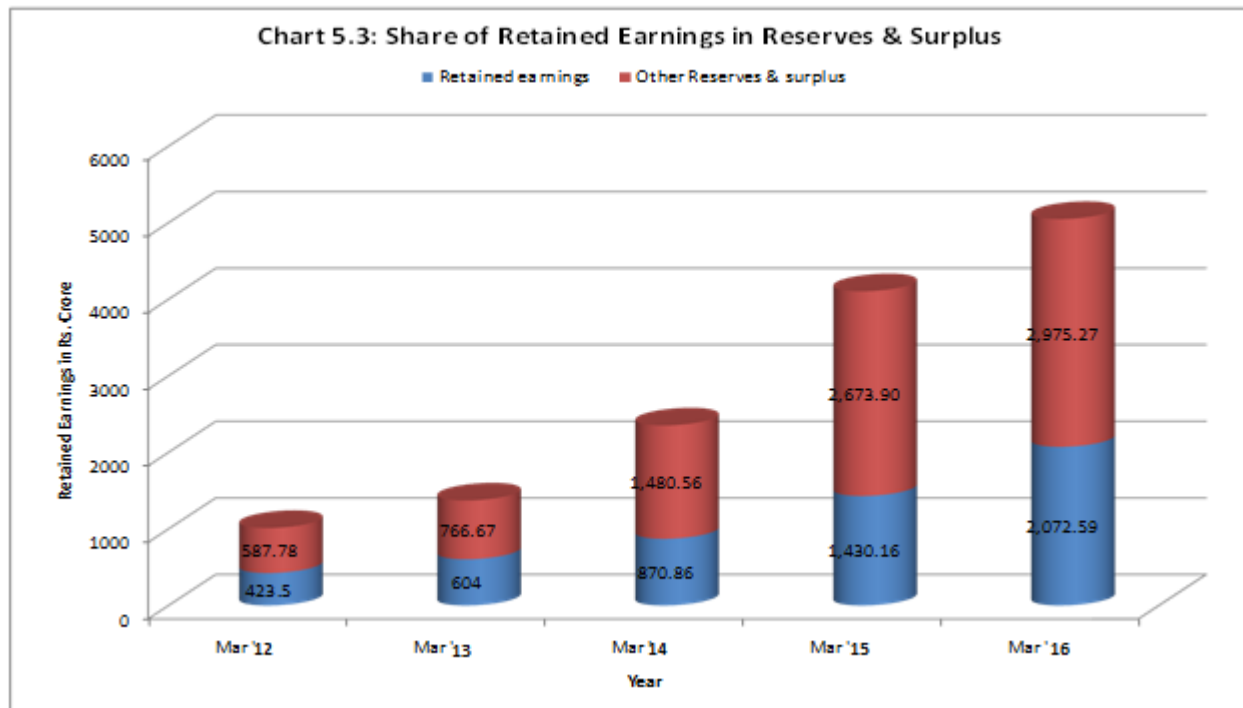
Retained Earnings:

The company has used 'Retained Earning' or 'Reserve & Surplus' as its major source of finance, especially to meet its long-term financial requirement. The company's retained earnings as a proportion of total reserves and surplus is shown in table 5.3 and chart 5.3.

Table 5.3: Components of Reserves and Surplus

Amount in Rs. Crore	Mar ' 05	Mar ' 06	Mar ' 07	Mar ' 08	Mar ' 09
Reserves & surplus	1,011.28	1,370.67	2,351.42	4,104.06	5,047.86
Of which, Retained earnings	423.5	604	870.86	1,430.16	2,072.59
Hence, Other Reserves & surplus	587.78	766.67	1,480.56	2,673.90	2,975.27
Retained earnings (% of Total Reserves & Surplus)	41.88	44.07	37.04	34.85	41.06
Other Reserves & surplus (% of Total Reserves & Surplus)	58.12	55.93	62.96	65.15	58.94
Annual Growth in Retained Earnings (%)	-	42.62	44.18	64.22	44.92

It can be observed that the total reserves and surplus of the company have doubled every two years. Thus, the reserves and surplus have increased from Rs. 1011.28 crore in 2011-2012 to Rs. 5047.86 crore in 2015-2016, which is a 400 per cent rise in total reserves and surplus of the company.



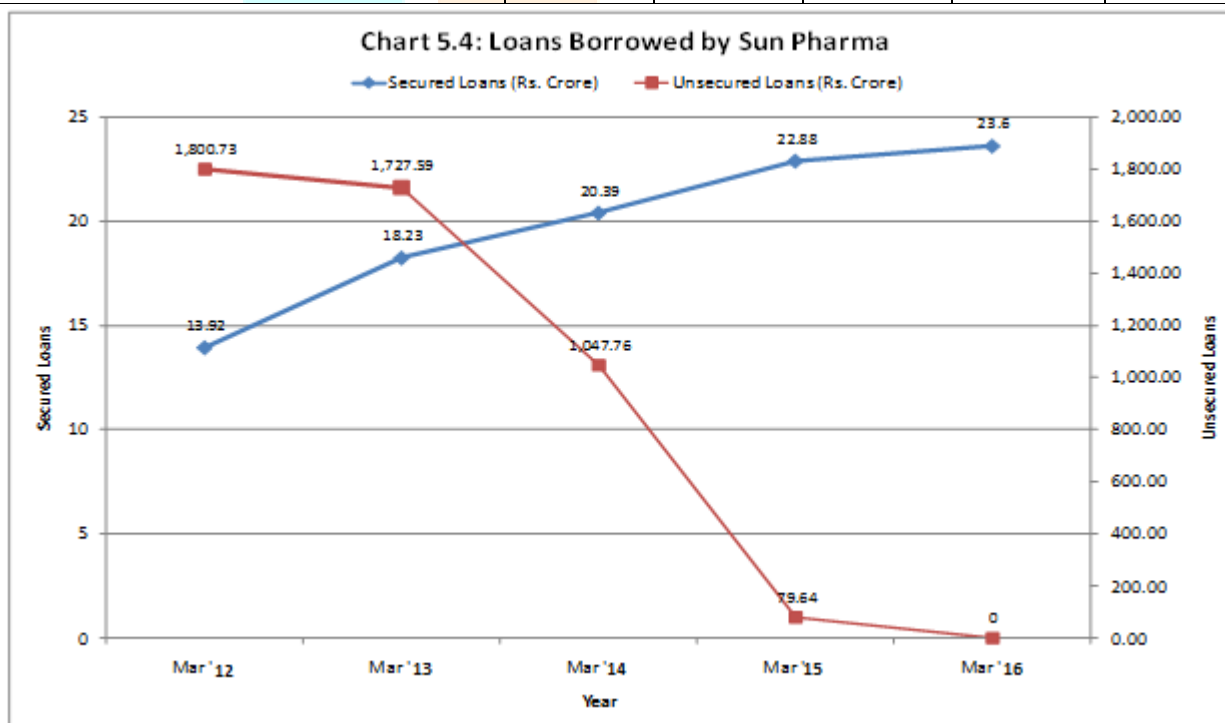
However, the proportion of retained earnings has been fluctuating during these five years. The absolute amount of retained earnings increased from Rs.423.5 crore to Rs. 2072.59 during the same period, which is a five times rise in retained earnings. But, when the annual growth rate of retained earnings is scrutinized, it becomes obvious that the share of retained earnings in total reserves and surplus of Sun Pharma increased from 41.88 per cent in 2012 to 44.07 per cent in 2013. This proportion decreased for the next two years to 37.04 per cent and 34.85 per cent respectively. However, the proportion of retained earnings increased back to 41.06 per cent in 2016. On the other hand, the annual growth rate of retained earnings has shown an increasing trend during the first four years, from 42.62 per cent in 2013 to 64.22 per cent in 2015, before decreasing to the annual growth rate of 44.92 per cent in 2016. This indicates that the company has constantly relied on retained earnings, as the source of capital rather than raising finance through equity. As long as the profitability of the company is high, this can be a steady source of finance for the company's operations.

D) Loans:

The company has also raised finance by obtaining secured loans from various banks as well as unsecured loans. The comparison between the amount of secured bank loans and unsecured bank loans of the company is shown in table 5.4 and chart 5.4.

Table 5.4: Loans Borrowed by Sun Pharma

	Mar ' 05	Mar ' 06	Mar ' 07	Mar ' 08	Mar ' 09
Secured Loans (Rs. Crore)	13.92	18.23	20.39	22.88	23.6
Unsecured Loans (Rs. Crore)	1,800.73	1,727.59	1,047.76	79.64	0
Secured Loans (% of Total Loans)	0.77	1.04	1.91	22.32	100
Unsecured Loans (% of Total Loans)	99.23	98.96	98.09	77.68	0
Total Loans (Rs. Crore)	1,814.65	1,745.82	1,068.15	102.52	23.60



The amount of secured loans, which indicates long term borrowing from financial institutions including banks, has increased continuously, although, the proportion of secured loans is quite less as compared to the equity capital. This indicates that the company believes in raising funds from the open equity market, rather than going for loans. This is because the interest burden arises when a loan is borrowed, while in case of equity capital, the company has the freedom and flexibility to

declare dividend as per its own convenience. Also, it is clear that the amount of unsecured loans has decreased continuously, and actually fallen to zero in the financial year 2015-2016. As the company is reducing its dependence on unsecured loan, it is a good indicator that the company believes in more systematic borrowings.

5.3 CAPITAL STRUCTURE RATIOS:

Capital Structure ratios help in the analysis of the long term financial status of a company. These ratios indicate the relationship between various types of funds provided by the owners and the creditors. The following capital structure ratios of Sun Pharma have been worked out to analyze the status of the capital structure of the company:

1) Debt-Equity Ratio:

Debt-Equity Ratio indicates the relationship between the external long term liabilities and owner's funds. There is no standard formula for calculating debt-equity ratio of a company. Hence the top management on the basis of an evaluation of present and future financial markets should set the ratio.

The calculation of debt-equity ratio is done by using the following formula:

$$\text{Debt Equity Ratio} = \frac{\text{Long Term Debt}}{\text{Shareholders' Fund}}$$

Long-term debt includes secured as well as unsecured loans and shareholders' fund includes equity share capital of the company and all retained earnings.

Theoretically, there is no ideal debt-equity ratio but generally acceptable norm for the ratio is 2:1. A higher ratio than the norm shows that the outside creditors, such as the financial institutions who lend funds to the company, have larger claim than the owners of the company. A lower ratio than the

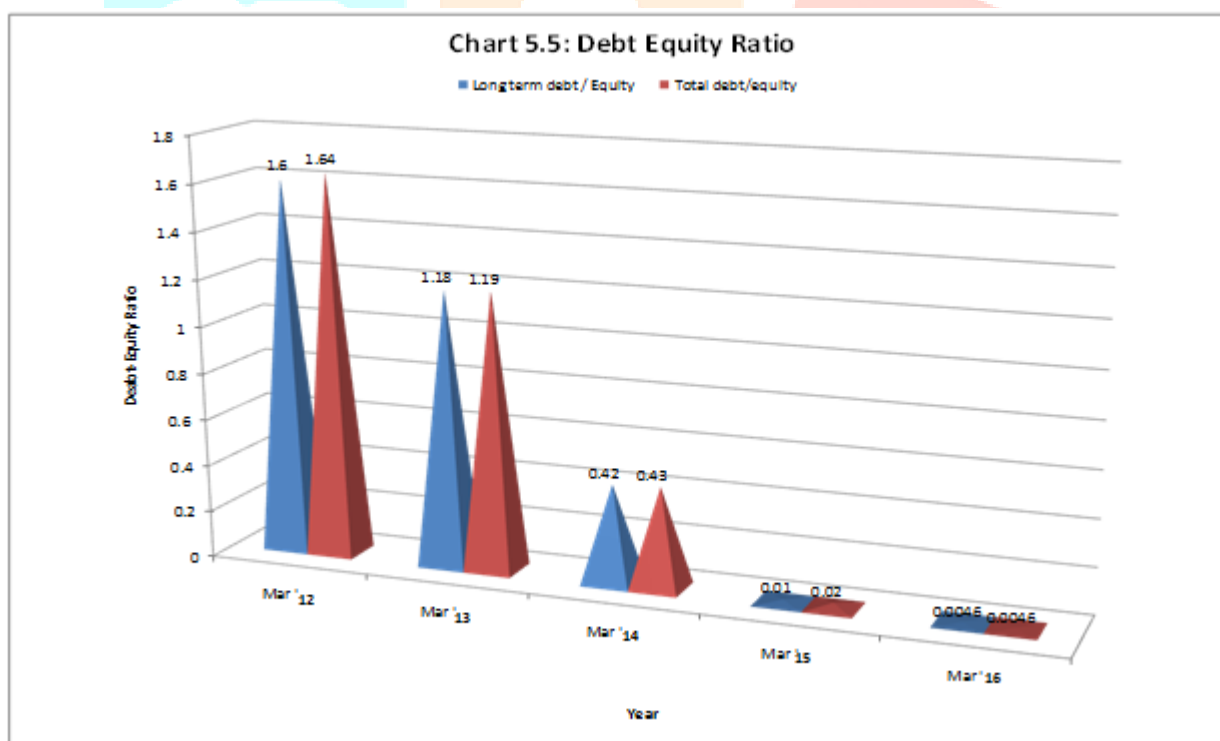
norm indicates a smaller claim of the creditors. Thus, debt-equity ratio shows the margin of safety to the creditors.

The Debt-equity ratio of Sun Pharma for the five years under study is shown in table 5.5 and chart 5.5.

Table 5.5: Debt Equity Ratio

Ratio Type	Mar ' 05	Mar ' 06	Mar ' 07	Mar ' 08	Mar ' 09
Long term debt / Equity	1.6	1.18	0.42	0.01	0.0046
Total debt/Equity	1.64	1.19	0.43	0.02	0.0046

Total debt to equity ratio is marginally higher as compared to the long term debt to equity ratio. The reason behind this is existence of short term unsecured loans, which gets accounted for in total debt. However, the two ratios become equal in the year 2016 as the amount of short term unsecured loans has become zero on account of complete repayment of these loans.



Moreover, the ratio has decreased continuously from 1.6 in 2012 to 0.0046 in 2016, which indicates that the debt component in total funds of the company has decreased considerably as compared to the equity holdings. This shows company's preference for raising finance through equity rather than

going for loans from financial institutions. This renders more flexibility and reduces interest burden on the bank.

2) Interest Coverage Ratio:

This is one of the conventional ratios to test the firm's debt servicing capacity and it is used widely. It shows how many times the interest charges have been covered by the funds that are available for payment of interest. It is determined by dividing the operating profit or earnings before interest and tax (EBIT) by the fixed interest on loans. Depreciation can also be included in the calculation of interest coverage ratio because depreciation is a non-cash item and the funds equaling to the amount of depreciation are also available for interest payment. In this case, to derive the interest coverage ratio, EBDIT, i.e., earnings before depreciation, interest and tax, is divided by total interest expenses. If EBDIT is taken into consideration, then the ratio increases due to the addition of a positive value of depreciation.

Here interest coverage ratio has been calculated in two ways: first by taking EBIT and then by considering EBDIT for the purpose of comparison.

$$\text{Interest Coverage Ratio} = \frac{EBIT}{\text{Interest}} \text{ or } \frac{EBDIT}{\text{Interest}}$$

This ratio shows the number of times the interest charges are covered by funds that are ordinarily available for the payment of interest due to the company. It indicates the extent to which earnings may fall without adversely affecting the firm's ability to service its interest payments. An interest coverage ratio of 2:1 is considered to be reasonable by the financial institutions.

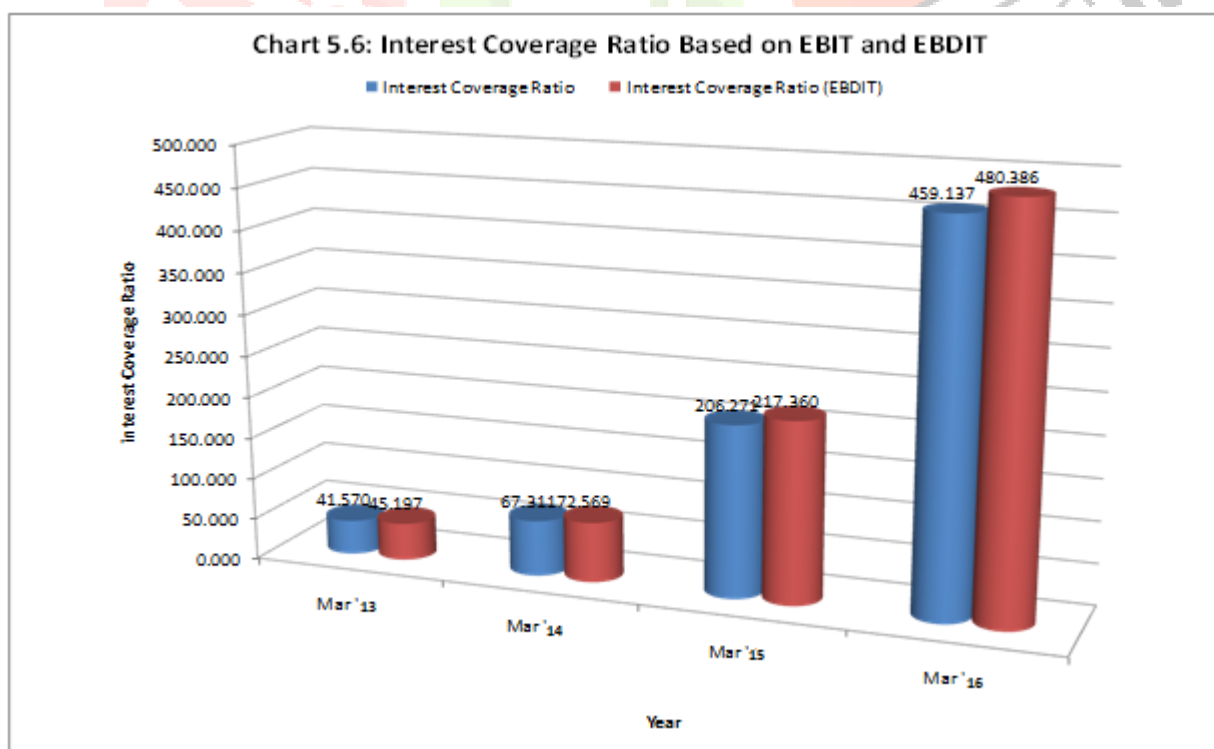
A very high ratio indicates that the firm is conservative in issuing debt and a very low ratio indicates excessive use of debt. A higher ratio is desirable as it means that the firm has greater ability to pay fixed interest liabilities and secured payment of interest to creditors. A lower ratio indicates excessive

use of debt and that the firm does not have the ability to offer secured payment of interest to the creditors.

Table 5.6: Interest Coverage Ratio Based on EBIT and EBDIT

	Mar ' 12	Mar ' 13	Mar ' 14	Mar ' 15	Mar ' 16
Earnings Before Interest & Tax (Rs. Crore)	313.29	466.83	592.34	1,043.73	1,271.81
Depreciation	32.83	40.73	46.27	56.11	58.86
EBDIT (Rs. Crore)	346.12	507.56	638.61	1,099.84	1,330.67
Interest (Rs. Crore)	0	11.23	8.8	5.06	2.77
Interest Coverage Ratio (EBIT)	~	41.570	67.311	206.271	459.137
Interest Coverage Ratio (EBDIT)	~	45.197	72.569	217.360	480.386

Table 5.6 and chart 5.6 show the changes in both the interest coverage ratios over the past five years. The average interest coverage ratio for the last five years under study has been 193.572 times. Since no interest expenses were incurred in the year 2012, this average is of the remaining four years. Further, the interest coverage ratio has kept on increasing continuously. The overall picture reveals that the ratio increased from 41.570 in 2013 to 459.137 in 2016.



This continuous rise is due to two reasons: The earnings before interest and tax have increased continuously. The interest payment has decreased over the years as the company is relying less and less on borrowed capital, i.e., loan amount has decreased continuously.

The ratio has been quite high as compared to the norms, indicating a very sound financial position of the company. The calculation of interest coverage ratio on the basis of EBDIT (Earnings before depreciation, interest and tax) of Sun Pharma shows a higher ratio as compared to the interest coverage ratio based on EBIT. This is natural as EBDIT is always greater than the EBIT, due to the positive depreciation included in the former. The average of ratio based on EBDIT for the four years is 203.878, which is higher than the average of the ratio calculated on the basis of EBIT. This ratio has also increased over the five years, from 45.197 in 2013 to 480.386 in 2016. The same reasons of increasing earnings and less interest burden can be cited for this phenomenon. Moreover, the amount of depreciation has not increased much, while the earnings have increased at a much faster speed, resulting in higher interest coverage ratio based on EBDIT. It is clear from both the trends that Sun Pharma is in a financially sound position, due to high earnings and low interest liabilities.

3) Proprietary Ratio:

Proprietary ratio is, in reality, a variant to the debt-equity ratio and it is also known as net worth to total assets ratio. It establishes the relationship between shareholders' fund and total assets of the firm. The proprietor's ratio is an important ratio for determining long term solvency of a firm.

The components of this ratio are shareholders' funds and total assets. The shareholders' funds comprises of equity share capital and reserves & surplus. The total assets on the other hand denote total resources of the concern. The ratio can be calculated as under:

$$\text{Proprietary Ratio} = \frac{\text{Shareholders' Funds}}{\text{Total Assets}} \times 100$$

The higher the ratio, the stronger the financial position of the firm, as it signifies that the proprietors have provided larger funds to purchase the assets. And, obviously, the ratio cannot exceed 100.

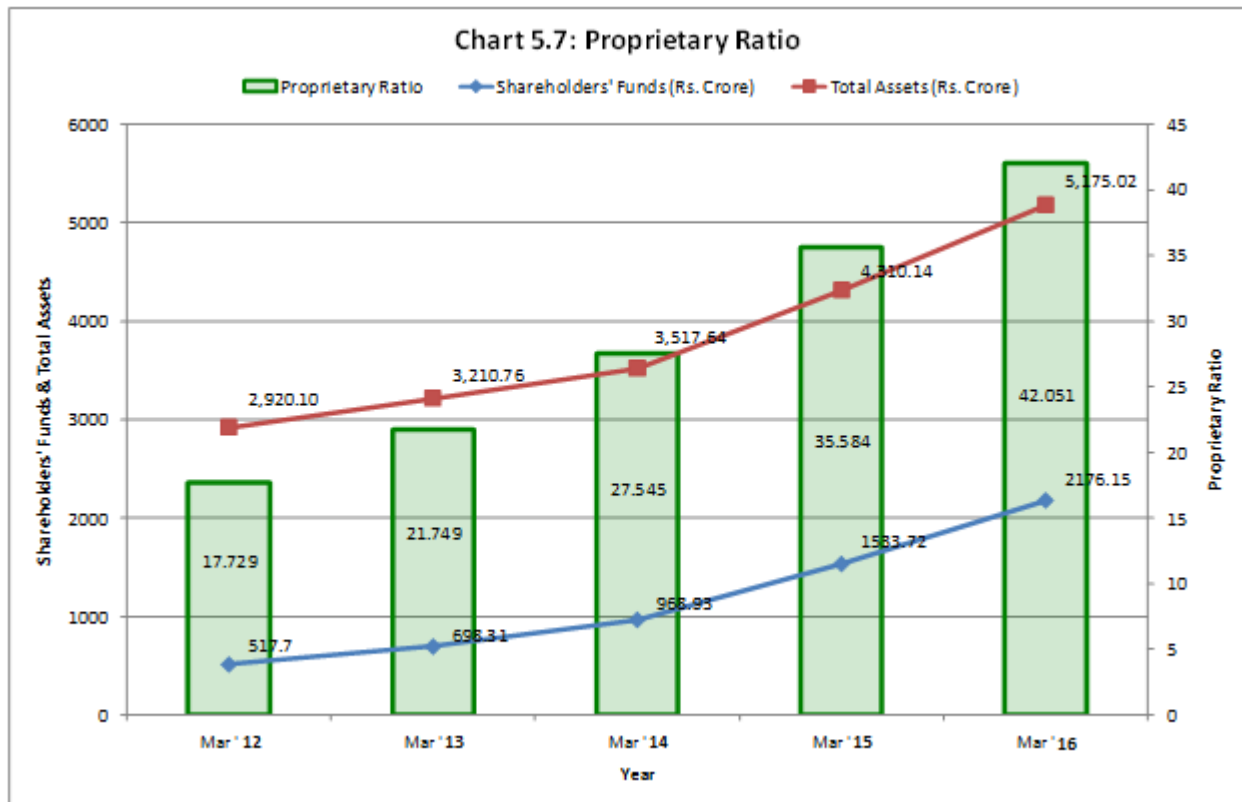
Table 5.7 and chart 5.7 show the trend for Sun Pharma during the last five years.

Table 5.7: Proprietary Ratio for Sun Pharma

	Mar ' 12	Mar ' 13	Mar ' 14	Mar ' 15	Mar ' 16
Shareholders' Funds (Rs. Crore)	517.7	698.31	968.93	1533.72	2176.15
Total Assets (Rs. Crore)	2,920.10	3,210.76	3,517.64	4,310.14	5,175.02
Proprietary Ratio	17.729	21.749	27.545	35.584	42.051

The above figures show that the proprietary ratio of the company has increased consistently over the last five years from 17.729 in 2012 to 42.051 in 2016. This shows that the company is able to pay for over 42 per cent of its total assets from the shareholders' funds. This shows a definite improvement in the performance of the company over the last five years. The average of the five years is 28.932, which is relatively low, and indicates that about 29 per cent of the company's total assets are paid for from the shareholders' funds.

However, the ratio is increasing, which is a positive indicator and implies that the company is alert to raise more funds from the open market to create more and more total assets.



It can also be observed from chart 5.7 that both shareholders' funds and total assets have increased almost in a parallel manner. This is the reason why the proprietary ratio has also increased steadily, without much variation in the marginal rate of increase. The firm can think of improving this ratio further by increasing shareholders' funds to a greater extent as compared to the amount of its total assets, which includes both fixed assets and current assets.

4) Fixed Assets to Net Worth Ratio:

This ratio establishes the relationship between the fixed assets and the shareholders' funds, i.e., share capital plus all retained earnings, of the company. It is calculated by using the following formula:

$$\text{Fixed Assets to Net Worth Ratio} = \frac{\text{Fixed Assets of the Company}}{\text{Shareholders' Fund}} \times 100$$

The ratio of fixed assets to net worth indicates the extent to which shareholders' fund is used to finance the fixed assets. Generally, the purchase of fixed assets should be financed by shareholders' equity including retained earnings. If the ratio is less than 100%, it implies that owner's funds are

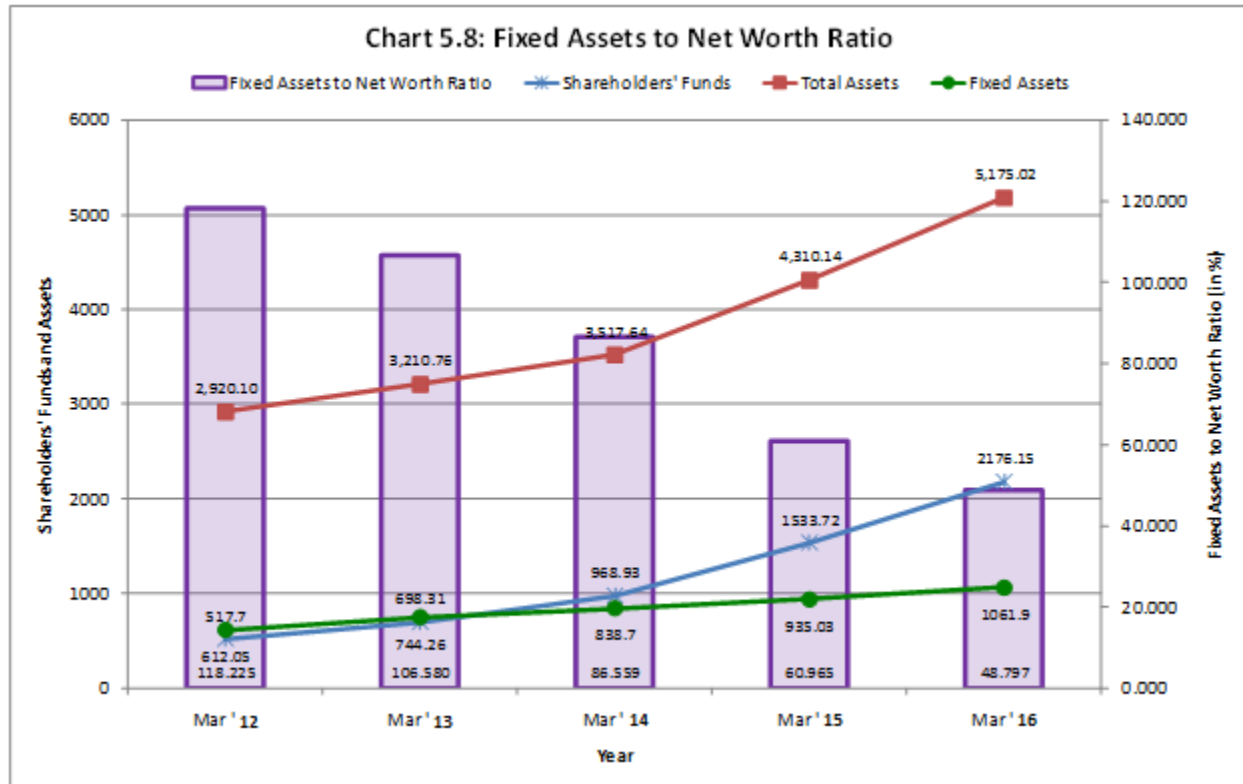
more than the total fixed assets and a part of the working capital is provided by the shareholders. But when the ratio is more than 100%, it suggests that owner's funds are not sufficient to finance the fixed assets and the firm has to depend upon outside parties to finance the fixed assets.

The fixed assets to net worth ratio for Sun Pharma from 2012 to 2016 is as given in table 5.8 and chart 5.8.

Table 5.8: Fixed Assets to Net Worth Ratio

	Mar '12	Mar '13	Mar '14	Mar '15	Mar '16
Shareholders' Funds (Rs. Crore)	517.7	698.31	968.93	1533.72	2176.15
Total Assets (Rs. Crore)	2,920.10	3,210.76	3,517.64	4,310.14	5,175.02
Fixed Assets (Rs. Crore)	612.05	744.26	838.7	935.03	1061.9
Fixed Assets to Net Worth Ratio	118.225	106.580	86.559	60.965	48.797

Table 5.8 indicates that the fixed assets to net worth ratio has been greater than 100 per cent in 2012 and 2013, which implies that only a part of the fixed assets can be paid for by using the shareholders’ funds. This is not a very good sign for the company, and it needs to create more shareholders’ funds in order to create fixed assets in future. This is achieved in the later three years, when the ratio has fallen below the 100 per cent mark, which is a very good indicator for the company.



Not only that, but the ratio is continuously decreasing, indicating that the company is able to create more and more shareholders’ funds and is able to pay for its fixed assets through these funds. The average of the ratio for the five years is 84.225, indicating that the company can pay for 84 per cent of its fixed assets through the shareholders’ funds. The ratio has decreased from a high level of 118.225 per cent in 2012 to 48.797 per cent in 2016 as it is evident from chart 5.8. This is mainly due to a relatively higher growth of shareholders’ funds and a lesser growth of the fixed assets. The fixed assets curve has also fallen below the shareholders’ funds curve, indicating that the latter has surpassed the former values. Also it can be seen that the growth rate of fixed assets has been less than

the growth of total assets. This is the reason why the fixed assets to net worth ratio seems to have improved faster as compared to the proprietary ratio.

5) Fixed Assets to Long Term Fund Ratio

A variant to the ratio of fixed assets to net worth is the ratio of fixed assets to total long term funds. This ratio indicates the proportion of long term funds deployed in fixed assets. The ratio is based on the following formula:

$$\begin{aligned} \text{Fixed Assets to Long Term Funds Ratio} &= \frac{\text{Fixed Assets}}{\text{Total Long Term Funds}} \times 100 \\ &= \frac{\text{Gross Fixed Assets} - \text{Depreciation}}{\text{Total Long Tem Assets}} \times 100 \end{aligned}$$

Here, the fixed assets represent the gross fixed assets less depreciation provided on it till the date of calculation. The long term fund consists of shareholder's fund plus long term borrowings. Generally, the total of the fixed assets should be equal to the total of the long term funds. In other words, this ratio should be 100%. But in case the fixed assets exceed the total of the long term funds it implies that the firm has financed a part of fixed assets out of current funds or out of working capital, which is not a good financial policy.

Table 5.9 and chart 5.9 show the performance of the company in this regard.

Table 5.9: Fixed Assets to Long Term Fund Ratio

	Mar ' 12	Mar ' 13	Mar ' 14	Mar ' 15	Mar ' 16
Fixed Assets (Rs. Crore)	612.05	744.26	838.7	935.03	1061.9
Depreciation (Rs. Crore)	32.83	40.73	46.27	56.11	58.86
Total Long Term Funds (Rs. Crore)	2332.35	2444.13	2037.08	1636.24	2199.75
Fixed assets to Long term Fund Ratio	24.834	28.784	38.900	53.716	45.598

The average fixed assets to net worth ratio for the selected five years is 38.367, which is quite low. Moreover, the trend clearly shows that although the ratio has increased in general from 24.834 in

2012 to 45.598 in 2016, it is still much less than the desired level of 100 per cent. The ratio reached highest value of 53.716 in 2015, before decreasing again to 45.598 in 2016. This indicates that the company is not in a position to cover its fixed assets from the long term funds raised by it. This does not give a very desirable picture for the financial standing of the company as far as its fixed assets are concerned.

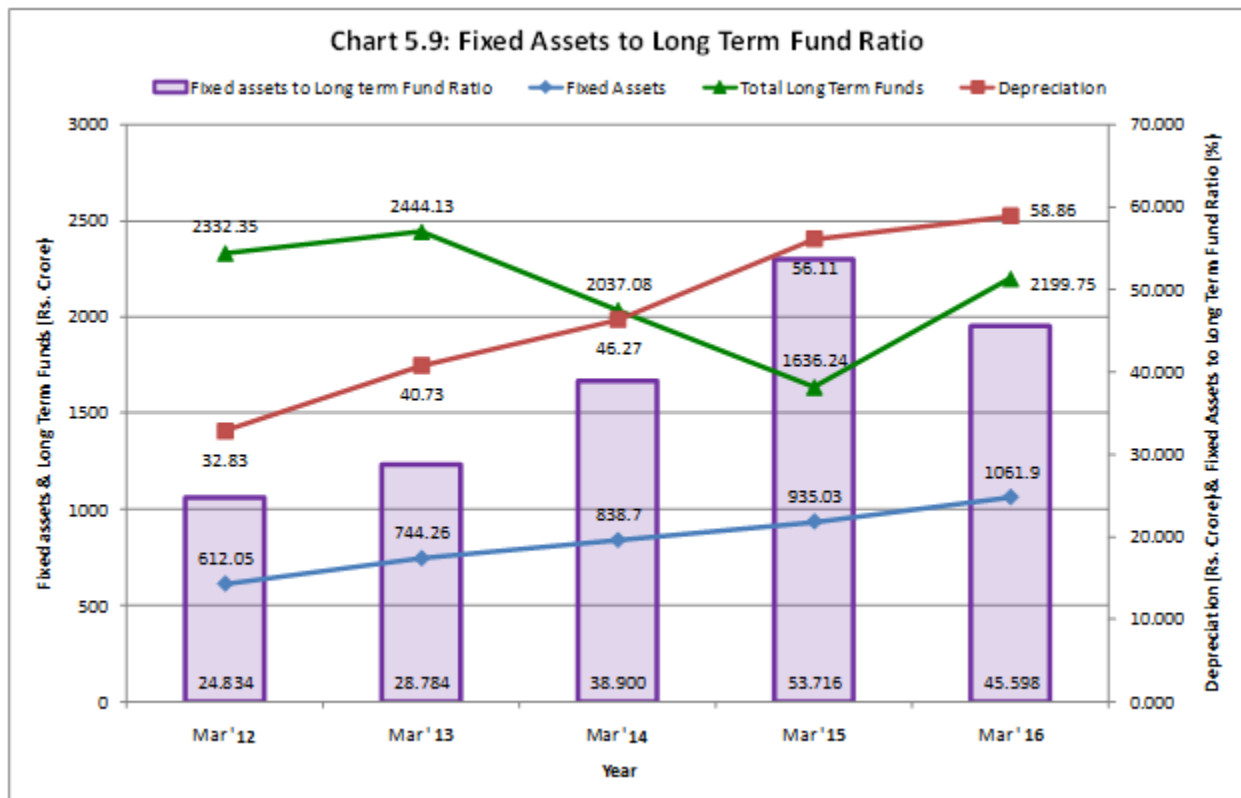


Chart 5.9 shows the reason behind the increasing trend in the ratio, and also the exceptional circumstances in the year 2015, which caused a much greater increase in the ratio as compared to the previous year of 2014. It is clear from the chart that while the amount of fixed assets increased continuously, the increase in depreciation has been relatively slower. Further, the total long term funds show a declining trend from 2013 to 2015, resulting in a faster increase in the ratio till 2015. However, this changed in 2016, when the volume of total long term funds increased considerably,

causing a decline in the ratio from 53.716 in 2015 to 45.598 in 2016. Thus, it can be said that the company can improve its performance further in this respect.

6) Capital Gearing Ratio:

The capital gearing ratio shows the mix of financial employed in the capital structure. It indicates the proportion between owner's funds and non-owners' funds. If the ratio is high the capital gearing is said to be high and vice-versa. High gearing means trading on thin equity base while low gearing means trading on thick equity base. The higher the ratio is, the more unstable the ordinary shares are, because major share of the profit is absorbed by debenture interest and preference dividend, and there is a possibility of greater fluctuations in the rate of equity dividend. The ratio can be calculated as follows:

Capital Gearing Ratio

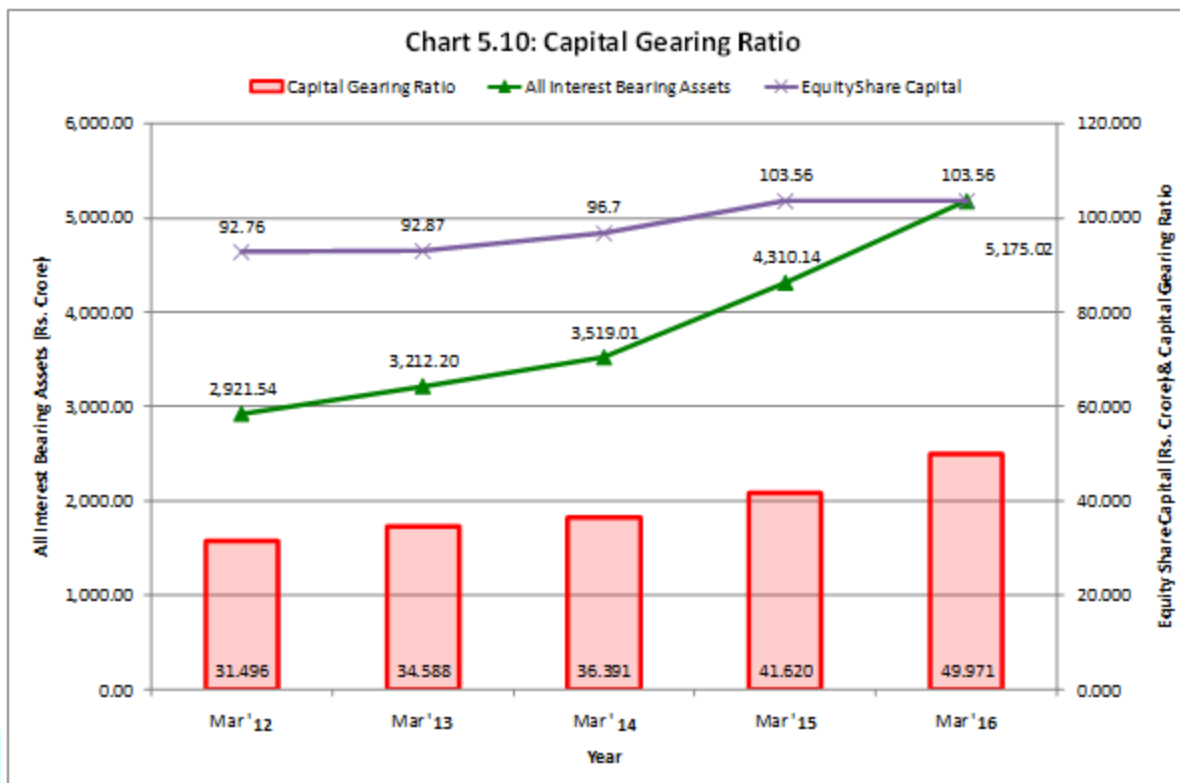
$$= \frac{\text{Preference Share, Debentures \& Other Interest Bearing Capital}}{\text{Equity Shareholders' Fund}}$$

The calculation of the capital gearing ratio is shown in table 5.10 and chart 5.10. It may be noted that the company does not have any debentures.

Table 5.10: Capital Gearing Ratio

	Mar ' 12	Mar ' 13	Mar ' 14	Mar ' 15	Mar ' 16
Preference Share Capital (1)	1.44	1.44	1.37	0	0
Debentures & Other Interest Bearing Assets (2)	2,920.10	3,210.76	3,517.64	4,310.14	5,175.02
All Interest Bearing Assets (1+2)	2,921.54	3,212.20	3,519.01	4,310.14	5,175.02
Equity Share Capital	92.76	92.87	96.7	103.56	103.56
Capital Gearing Ratio	31.496	34.588	36.391	41.620	49.971
Dividend (%)	75	110	135	210	275

The calculations presented in table 5.10 show that the capital gearing ratio of Sun Pharma has increased continuously, from 31.496 in 2012 to 49.971 in 2016.



The major reason behind this is a phenomenal rise in the amount of interest bearing assets. And, as compared to this, the amount of equity share capital has not increased much. It should also be noted that the proportion of preference share capital is quite negligible in total interest bearing assets, but the amount of other interest bearing assets is much greater. This implies that there is a possibility that the interest payments will keep rising, leading to fluctuations in the dividend paid on equity share capital. However, this notion is not supported much from the data available on dividend announced by the company, as shown in table 5.10. The data show that the company has been in a position to declare more and more dividend on a regular basis.

7) Reserve to Capital Ratio:

This ratio expresses the proportion between the amount of reserves and the amount of equity share capital. It is also useful to find out the financial position of the company. It indicates the amount of profits retained by the company against the amount of funds raised through equity share capital. As

companies tend to reserve a part of their total profit for future investment purpose, the amount of reserves and surplus generally keeps increasing if the earnings of the company are increasing.

This ratio can be calculated by using the following formula:

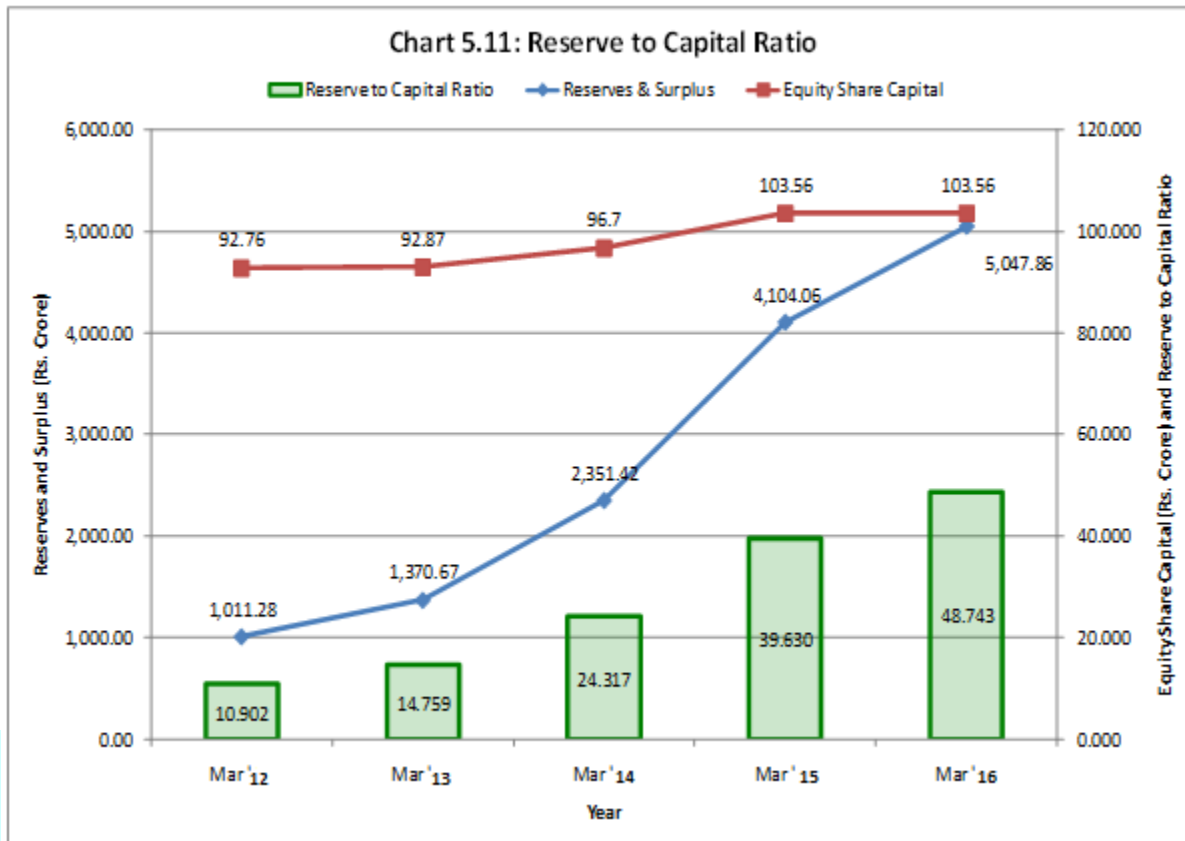
$$\text{Reserve to Capital Ratio} = \frac{\text{Reserves \& Surplus}}{\text{Equity Share Capital}}$$

Table 5.11 and chart 5.11 show the trends in the reserve to capital ratio for Sun Pharma during the previous five years.

Table 5.11: Reserve to Capital Ratio

	Mar ' 12	Mar ' 13	Mar ' 14	Mar ' 15	Mar ' 16
Reserves & Surplus (Rs. Crore)	1,011.28	1,370.67	2,351.42	4,104.06	5,047.86
Equity Share Capital (Rs. Crore)	92.76	92.87	96.7	103.56	103.56
Reserve to Capital Ratio	10.902	14.759	24.317	39.630	48.743

Observation from table 5.11 indicates that the Reserve to Capital Ratio has increased consistently over the last five years, from 10.902 in 2012 to 48.743 in 2016. Chart 5.11, along with table 5.11, reveals the reason behind this rising trend. It can be clearly seen that both reserves and surplus and equity share capital have increased over these years. But the increase in the reserves and surplus is much faster as compared to the increase in the equity share capital. The reason behind the fast rise in reserves and surplus is consistently increasing profits of the company. Consequently, the reserve to capital ratio has also increased at a fast speed.



This is apparently a very good sign for the company, as it can be certain about the funds available to it for future business expansion and further investment. However, if profits decline, the ratio can also decline and the company can be in some trouble.

8) Dividend Coverage Ratio:

This ratio indicates the number of times the dividend is covered by net profit. This highlights the amount retained by a company for financing its future operations. It is an important ratio for understanding the possibility of securing finances from the profits earned by the company. As the profits increase, dividend coverage ratio also increases, if the equity share capital does not increase simultaneously.

The ratio is calculated by using the following formula:

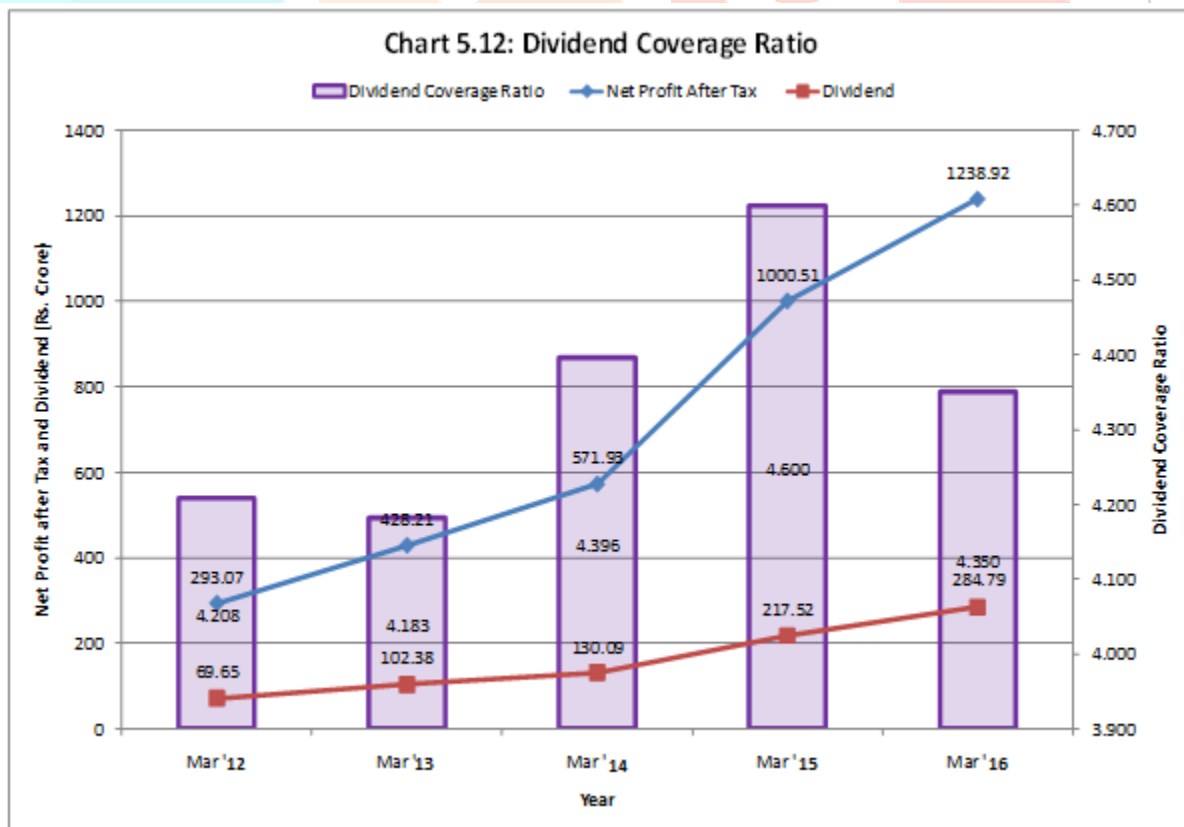
$$Dividend\ Coverage\ Ratio = \frac{Net\ Profit\ after\ Tax}{Dividend}$$

The trends in the dividend coverage ratio are shown through table

Table 5.12: Dividend Coverage Ratio

	Mar ' 12	Mar ' 13	Mar ' 14	Mar ' 15	Mar ' 16
Net Profit After Tax (Rs. Crore)	293.07	428.21	571.93	1000.51	1238.92
Dividend (Rs. Crore)	69.65	102.38	130.09	217.52	284.79
Dividend Coverage Ratio	4.208	4.183	4.396	4.600	4.350

As it is evident from the table as well as the chart, the dividend coverage ratio increased from 4.208 in 2012 to 4.350 in 2016. However, the trend does not show a clear increase. There have been wide fluctuations in the ratio, as it decreased in 2013 to 4.183 and also from 4.396 in 2014 to 4.600 in 2015. The reasons behind these fluctuations are evident from chart 5.12. In 2013, the net profit has increased relatively less as compared to the dividend. Similarly, rapid rise in the net profit during the years 2014 and 2015 lead to a sharp increase in the dividend coverage ratio, since the dividend did not increase at such a fast speed.



On the contrary, net profit increased at a lesser speed as compared to the dividend in 2016, which led to a sharp decline in the ratio during this year. The trend shows that in spite of the fluctuations in the net profit, the company has maintained the dividend growth rate. This may be done to keep up the confidence of the equity investors in the company and may be considered a good strategy especially in the turbulent times.

CONCLUSION:

The present research work focuses on the analysis of the capital structure of one of the largest pharmaceutical companies operating in India. Sun Pharmaceutical Industries Limited commenced its operations in India in 1983, and since then it has climbed up to the position of one of the top five pharmaceutical companies operating in the country. Obviously, it is interesting to analyze the capital structure of such a company which has grown by leaps and bounds in such a short span of time. The present analysis, spanning over five financial years from 2011-2012 to 2015-2016, reveals many interesting features of the capital structure of the company. **Some of the major observations can be**

The analysis of the capital structure of Sun Pharma suggests that the company has been able to follow the principles of combining its own funds, including reserves and surplus and equity capital and borrowed funds well in order to ensure financial stability and soundness.

Drawn to conclude:

1. The company relies more on the financial source of retained profits.
2. As a result, reserves and surplus form a major component of the entire capital structure of the company.
3. It has issued equity shares to raise capital as well, although the proportion of these is relatively small.

4. The company has lately not relied on preference share capital, and never relied on debentures during these five years of study.
5. Long term loans also form only a minor component of the company's capital structure. However, it resorts to short term unsecured loans.
6. But, the interest burden is quite less due to the lesser reliance on this kind of borrowed capital.
7. The profit earnings of the company have increased continuously, while the depreciation amounts are less.
8. This has resulted in increasing amounts of dividend as well as retained profits.
9. Subsequently, the financial position of the company has become quite strong with the passage of time.
10. The only point where the company needs to be careful is paying for its assets through the equity shareholders' funds.
11. However, the company has been making a good progress in this direction as well, and is covering up more and more of its assets through equity shareholders' capital.

In the end, it can be said that Sun Pharmaceutical Industries Limited complies with the major principles of capital structure formation. And it is certain that if the company continues to concentrate so well on maintaining its capital structure, its financial strength will increase further in the coming times

Bibliography:

1. Baker, Malcolm P.; Wurgler, Jeffrey (2016). "Market Timing and Capital Structure". *Journal of Finance* 57 (1): 1-32.
2. Capital Structure Theories: cases at capital structure theories in financial management

3. Gajurel, Dinesh Prasad. "Capital Structure Management in Nepalese Enterprises."
<http://ssrn.com/abstract=778106>.
4. Holmes, Karen. 2009. *The Indian Pharmaceutical Industry: Diversification, Expansion & Ambitions*.
https://www.espicom.com/prodcat.nsf/Product_ID_Lookup/00001851?OpenDocument
5. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=778106
6. <http://www.listedall.com/search/label/capital%20structure>
7. <http://www.naukrihub.com/india/pharmaceutical/overview/economic-value/>
8. <http://www.naukrihub.com/india/pharmaceutical/overview/swot-analysis/>
9. <http://www.westga.edu/~bquest/2016/rethinking.htm>
10. Lyandres, Evgeny and Zhdanov, Alexei, Investment Opportunities and Bankruptcy Prediction(February 2014). Available at SSRN: <http://ssrn.com/abstract=946240>
11. Myers, Stewart C.; Majluf, Nicholas S. (1984). "Corporate financing and investment decisions when firms have information that investors do not have". *Journal of Financial Economics* 13 (2): 187-221.
12. Rosenbaum, Joshua; Pearl, Joshua (2016). *Investment Banking: Valuation, Leveraged Buyouts, and Mergers & Acquisitions*. Hoboken, NJ: John Wiley & Sons. ISBN 0-470-44220-4.
13. www.googlesearch.com
14. www.moneycontrol.com
15. Annual Reports (2012-2016). www.sunpharma.in