

# CHAPTER I

## INTRODUCTION

### I. Services Sector

Countries with primarily service-based economies are considered to be more advanced than countries with primarily industrial or agricultural economies. India is distinctive among fast growing developing countries for the role of the service sector. Although there are other emerging markets where the share of services in Gross Domestic Product (GDP) exceeds the share of manufacturing, India stands out for the size and dynamism of its services sector. The contribution of the services sector to the Indian economy has been manifold. A 55.2 per cent share in gross domestic product (GDP), growing by 10 per cent annually, contributing to about a quarter of total employment, accounting for a high share in foreign direct investment (FDI) inflows and over one-third of total exports, and recording very fast (27.4 per cent) export growth through the first half of 2010-11.<sup>1</sup>

The economy that produces intangible goods is brought under services sector. According to the U.S. Census Bureau, the service sector primarily consists of truck transportation, messenger services & warehousing, information sector services, securities, commodities and other financial investment services such as rental and leasing services, professional, scientific and technical services, administrative and support services, waste management and remediation, health care and social assistance and arts, entertainment and recreation services etc. Individuals employed in this sector produce services rather than products, whereas, individuals employed in the manufacturing sector produce goods. The service sector consists of the activities where people offer their knowledge and time to improve productivity, performance, potential, and sustainability. The basic characteristic of this sector is the production of services instead of end products. Services (also known as "intangible goods") include attention, advice, experience, and discussion.

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<sup>1</sup> *Economic Survey 2010-11*, Services Sector, Chapter 10, Govt. Of India, Website: [Http://indiabudget.Nic.In](http://indiabudget.nic.in)

## 1. What is a 'Service'?

Many definitions of service are available but all contain a common theme of intangibility and simultaneous consumption. One of the first to define services was the American Marketing Association, which, as early as in 1960, defined services as "Activities, benefits, or satisfactions which are offered for sale, or provided in connection with the sale of goods." This definition took a very limited view on services as it proposed that services are offered only in connection with the sale of goods. The other definition which was proposed in 1996, by Valarie A. Zeithaml and Mary Jo Binter, "Services are deeds, processes, and performances."<sup>2</sup>

A service is an activity or series of activities of more or less intangible nature that normally, but not necessarily, take place in interactions between customer and service employees and/ or physical resources or goods and / or systems of the service provider, which are provided as solutions to customer problems.<sup>3</sup> Most authorities consider the services sector to include all economic activities whose output is not a physical product or construction, is generally consumed at the time it is produced, and provides added value in forms (such as convenience, amusement, timeliness, comfort, or health) that are essentially intangible concerns of its first purchaser.<sup>4</sup>

A precise definition of goods and services should distinguish them on the basis of their attributes. A good is a tangible physical object or product that can be created and transferred; it has an existence over time and thus can be created and used later. A service is intangible and perishable. It is an occurrence or process that is created and used simultaneously or near to simultaneous. While the customer cannot retain the actual service after it is produced, the effect of the service can be retained.<sup>5</sup>

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<sup>2</sup> Valarie A. Zeithaml and Mary Jo Binter, *Services Marketing*, New York, McGraw-Hill, 1996, P.5.

<sup>3</sup> Christian Gronroos, *Service Management And Marketing*, Lexington, Mass: Lexington Books, 1990, P.27.)

<sup>4</sup> James Brian Quinn, Jordan J. Baruch, and Penny Cushman Paquette, *Scientific American*, Vol.257, No.2, December 1987, P.50.

<sup>5</sup> Earl Sasser, R.Paul Olsen, and D.Daryl Wyckoff, *Management of Service Operations*, Boston: Allyn and Bacon, 1978, P.8.

## 2. Importance of the Services Sector and Indian Economy

The importance of the services sector can be gauged by looking at its contributions to different aspects of the economy. The share of services in India's GDP at factor cost (at current prices) increased rapidly from 30.5 per cent in 1950-51 to 55.2 per cent in 2009-10.

**Chart - 1**

**Growth Rate of India's GDP and Service Sector GDP (%)**



**Source: Economic Survey 2010-11, Govt. of India**

The ratcheting up of the overall growth rate (compound annual growth rate [CAGR]) of the Indian economy from 5.7 per cent in the 1990s to 8.6 per cent during the period 2004-05 to 2009-10 was to a large extent due to the acceleration of the growth rate (CAGR) in the services sector from 7.5 per cent in the 1990s to 10.3 per cent in 2004-05 to 2009-10. The services sector growth was significantly faster than the 6.6 per cent for the combined agriculture and industry sectors annual output growth during the same period. In 2009-10, services growth was 10.1 per cent and in 2010-11, it was 9.6 per cent. India's services GDP growth has been continuously above overall GDP growth, pulling up the latter since 1997-98. The share of respective sector to the GDP of India is as follows: Services (55.3%), Industry (28.6%), and Agriculture (16.1%)<sup>6</sup>.

<sup>6</sup> CIA World Fact Book

**Table - 1**  
**Nominal GDP Sector Composition, 2010**  
(In millions of dollars and in percentage)

Country	Nominal GDP	Agriculture % age	Industry % age	Services % age
World	62909274	5.7	30.7	63.6
European Union	16282230	1.8	25	73.2
United States	14657800	1.2	22.2	76.7
China	5878257	9.6	46.8	43.6
Japan	5458872	1.1	23	75.9
Germany	3315643	0.8	27.9	71.3
France	2582527	1.8	19.2	79
United Kingdom	2247455	0.9	22.1	77.1
Brazil	2090314	6.1	26.4	67.5
Italy	2055114	1.8	24.9	73.3
Canada	1574051	2	20	78
India	1537966	16.1	28.6	55.3

Source: International Monetary Fund, World Economic Outlook Database, April 2011: Nominal GDP list of countries. Data for the year 2010.

### 3. Employment Potential

Although the primary sector (mainly agriculture) is the dominant employer followed by the services sector, the share of services has been increasing over the years while that of primary sector has been decreasing. Between 1993-94 and 2004- 05, there was a sharp fall in the share of the primary sector in employment. The consequent rise in share of employment of the other two sectors was almost equally divided between the secondary and tertiary sectors. In 2007-08 compared to 2004-05, though the trend was similar, the fall in employment in primary sector was less (at -1.1 per cent) with a small commensurate rise in employment in the other two sectors, which was again almost equally divided between the other two sectors. The employment data of different sectors in India are as follows: Agriculture (52%), Industry (14%), and Services (34%), (2009)<sup>7</sup>. Sustaining economic growth and raising living standards warrant shifting labour out of agriculture into both manufacturing and services, not just into one or the other<sup>8</sup>.

<sup>7</sup> CIA World Fact Book

<sup>8</sup> Barry Eichengreen (2010), The Service Sector As India's Road To Economic Growth?, *Indian Council for Research on International Economic Relations*, April 2010.

#### **4. FDI in Services in India**

The measurement of the share of services in FDI inflows encounters problems as it is difficult to clearly differentiate activities between services and goods in sectors such as computer hardware and software, telecommunications, and construction etc. Nevertheless, the share of the four sectors combined (services [financial and nonfinancial], computer hardware and software, telecommunications, and housing and real estate), predominantly consisting of services, in FDI equity inflows in April 2000–December 2010 is around 44 per cent. The financial and non-financial services sector which falls purely in the services category is the largest recipient of FDI equity inflows with a 21 per cent share. This is followed by the other two sectors, namely computer software and hardware, and telecommunications each with 8 per cent share. Housing & real estate and construction with 7 per cent share each were next in importance. The year 2009-10 has seen a drying up of FDI inflows to India due to the global crisis with a fall of 5.5 per cent. Mirroring this trend, FDI inflows in the services sector also fell by 29.1 per cent (in terms of US dollar). The first nine months of 2010-11 have also not shown any improvement on the FDI front, overall and in services sectors.

#### **5. Challenges of Services Sector**

With the rising share of services in GDP, liberalization process in services go hand in glove with several barriers which are mainly in the form of quota, licenses, investment barriers, equity limits, restrictions of movement of people and regulatory framework. Regulatory cooperation on mutual recognition or harmonization of professional qualifications, licensing certification, technical standards, competition, and provisions for labour mobility, are viewed to bring transparency in the regional market for services.

Few developing countries have come forward with spectacular export growth in services and India is one among them. Developing countries in Asia account for 75 per cent of all developing countries' services trade. Top 15 developing country services exporters account for 80 per cent of all developing countries services exports. Service sectors are also major destination of inward FDI in these countries. In recent times many developing countries are taking initiatives to increase their service exports unilaterally or through regional agreement on services.

To capitalize the benefits of economies of scale, building supply capacities and to meet the international competition, the services sector in India needs enormous funds. These funds can be raised in the capital market through fixed cost or variable cost securities that is debt or equity. Since, this debt equity mix affects the profitability and determines the shareholders' risk, an empirical study on the capital structure of Indian services sector becomes necessary.

## II. Capital Structure

Capital Structure is a mix of debt and equity capital maintained by a firm. Capital structure is also referred as financial structure of a firm. The capital structure of a firm is very important since it is related to the ability of the firm to meet the needs of its stakeholders. Modigliani and Miller (1958)<sup>9</sup> were the first to landmark the topic of capital structure and they argued that capital structure was irrelevant in determining the firm's value and its future performance. On the other hand, Lubatkin and Chatterjee (1994)<sup>10</sup> as well as many other studies have proved that there exists a relationship between capital structure and firm value. Modigliani and Miller (1963)<sup>11</sup> showed that their model is no more effective, if tax was taken into consideration. Since tax subsidies on debt interest payments will cause a rise in firm value when equity is traded for debt. Capital structure is very important decision for firms so that they can maximize returns to their stakeholders. Moreover an appropriate capital structure is also important as it will help in dealing with the competitive environment within which the firm operates (Roshan Boodhoo, 2009)<sup>12</sup>

The prediction of the Modigliani and Miller model shows that in a perfect capital market the value of the firm is independent of its capital structure, and hence debt and equity are perfect substitutes for each other, which is widely accepted. However, once the assumption of perfect capital markets is relaxed, the choice of capital structure becomes

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<sup>9</sup> Modigliani, F. and Miller, M. (1958). The Cost of Capital, Corporation Finance, and The Theory of Investment. *American Economic Review* 48, June, 261-197.

<sup>10</sup> Lubatkin, M. and Chatterjee, S. (1994). Extending Modern Portfolio Theory into The Domain of Corporate Diversification: Does it Apply?. *Academy of Management Journal*, 37, Pp. 109-136.

<sup>11</sup> Modigliani, F. and Miller, M. (1963). Corporate Income Taxes and The Cost of Capital: A Correction, *American Economic Review*, June, 433-443.

<sup>12</sup> Boodhoo Roshan (2009), Capital Structure and Ownership Structure: A Review of Literature, *The Journal of Online Education*, New York.

an important value-determining factor. This paved the way for the development of alternative theories of capital structure decision and their empirical analysis. Although it is now recognized that the choice between debt and equity depends on firm-specific characteristics, the empirical evidence is mixed and often difficult to interpret (Rataporn Deesomsak, et.al, 2004)<sup>13</sup>.

The key components of capital structure are debt and equity. The proportion of debt funding is measured by gearing or leverages. There are different factors that affect a firm's capital structure, and a firm should attempt to determine what its optimal or best mix of financing. But determining the exact optimal capital structure is not a science, so after analyzing a number of factors, a firm establishes a target capital structure which it believes is optimal. Capital structure policy also involves a trade-off between risk and return. Using more debt raises the risks in the firm's earnings stream, but a higher proportion of debt generally leads to a higher expected rate of return and the higher risk associated with greater debt tends to lower the stock's price. At the same time, however, the higher expected rate of return makes the stock more attractive to investors, which in turn, ultimately increases the stock's price. Therefore, the optimal capital structure is the one that strikes a balance between risk and return to achieve the ultimate goal of maximizing the stock prices.

The assets of a company can be financed either by increasing the owner's claims or the creditor's claims. The owner's claims increase when the firm raises funds by issuing common (or ordinary) shares or by retaining the earning; the creditor's claims increase by borrowing. The various means of financing represent the financial structure of an enterprise. The term capital structure is used to represent the proportionate relationship between debt and equity<sup>14</sup>. A careful planning of the debt equity mix is essential in any form of commercial unit.

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<sup>13</sup> Rataporn Deesomsak, Krishna Paudyal, Gioia Pescetto (2004), The Determinants of Capital Structure: Evidence From The Asia Pacific Region, *Journal of Multinational Financial Management*, 14 (2004) Pp.387–405.

<sup>14</sup> Pandey.I.M,(1999), *Financial Management*, Vikas Publishing House Pvt Ltd, New Delhi.

## **1. Capital Structure Planning and Policy**

Capital structure refers to the mix debt and equity. Some companies do not plan their capital structure and it develops as a result of the financial decisions taken by the financial manager without any formal planning. These companies may prosper in the short-run, but ultimately they may face considerable difficulties in raising funds to finance their activities. With unplanned capital structure, these companies may also fail to economise the use of their funds. Consequently, it is being increasingly realized that a company should plan its capital structure to maximize the use of the funds and to be able to easily adapt to the changing conditions.

The financial manager should plan an optimum capital structure for his company. The optimum capital structure is obtained when the market value per share is maximum and the cost of capital is minimum. There are significant variations among industries and among individual companies within an industry in terms of capital structure. Since a number of factors influence the capital structure decision of a company, the judgment of a person making the capital structure decision plays a crucial part. Two similar companies can have different capital structure if the decision makers differ in their judgment of the significance of various factors. Moreover, the capital markets are not perfect and the decision has to be taken under imperfect knowledge and risk.

The management of a company may fix its capital structure in order to make maximum use of favorable leverage, subject to other requirements such as flexibility, solvency, control and norms set by the financial institutions, the Security Exchange Board of India (SEBI) and stock exchanges. A sound or appropriate capital structure should have these features<sup>15</sup>. Further, the emphasis given to each of these features will differ from company to company in addition to its specific features.

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<sup>15</sup> Johnson, R.L., *Financial Decision Making*, Goodyear, 1973. Also See Hasting, P.G., *The Management of Business Finance*, D.Van Nostrand Co., 1966.



## **2. Determinants of Capital Structure**

The capital structure of a concern depends upon a large number of factors such as leverage or trading on equity, growth of the company, nature and size of business, the idea of retaining control, flexibility of capital structure, requirements of investors, costs of floatation of new securities, timing of issue, corporate tax rate and the legal requirements etc. It is impossible to rank them because all such factors are of different importance and the influence of individual factors of a firm get changes over a period of time. Every time the funds are needed, the financial manager has to study the pros and cons of the various sources of finance so as to select the most advantageous capital structure. The factors influencing the capital structure are discussed as follows:

1. Financial Leverage or Trading on Equity
2. Growth and Stability of Sales
3. Cost of Capital
4. Cash Flow Ability of Service Debt
5. Nature and Size of a Firm
6. Control
7. Flexibility
8. Requirements of Investors
9. Capital Market
10. Assets Structure
11. Purpose of Financing
12. Period of Finance
13. Costs of Floatation
14. Personal Considerations
15. Corporate Tax Rate, and
16. Legal Requirements

## **3. Approaches to Establish Appropriate Capital Structure**

The capital structure is to be planned initially when a company is incorporated. The initial capital structure should be designed meticulously. The management of the company should set a target capital structure and the subsequent financing decisions

should be made with a view to achieving the target capital structure. The finance manager has also to deal with existing capital structure.

The company needs funds to finance its activities continuously. Even at a time when funds have to be procured, the finance manager weighs the pros and cons of various sources of finance and selects the most advantageous sources keeping in view the target capital structure. Thus, the capital structure decision is a continuous one and has to be taken whenever a firm needs additional finances. The following are the three most common approaches to decide about a firm's capital structure:

- A. EBIT-EPS approach for analyzing the impact of debts on EPS
- B. Valuation approaches for determining the impact of debt on the shareholder's value, and
- C. Cash flow approach for analyzing the firm's ability to service debt.

In addition to these approaches governing the capital structure decisions, many other factors such as control, flexibility, or marketability are also considered in practice.

#### **A. EBIT-EPS Approach**

The use of fixed cost sources of finance, such as debt and preference share capital to finance the assets of the company, is known as financial leverage or trading on equity. If the assets financed with the use of debt yield a return greater than the cost of debt, the earnings per share also increases without an increase in the owners' investment. The earnings per share is increases when the preference share capital is used to acquire assets. But the leverage impact is more pronounced in case of debt.

Because of its effect on the earnings per share, financial leverage is an important consideration in planning the capital structure of a company. The companies with high level of the earnings before interest and taxes can make profitable use of the high degree of leverage to increase return on the shareholders' equity. One common method of examining the impact of leverage is to analyse the relationship between EPS and various possible levels of EBIT under alternative methods of financing.

The major shortcoming of the EPS as a financing-decision criterion is that it does not consider risk. The belief that investors would be just concerned with the expected EPS is not well found. Investors in valuing the shares of the company consider both expected value and variability<sup>16</sup>. EPS fails to deal with risk-return trade-off. A long term view of the effects of financing decisions will lead one to a criterion of wealth maximization rather than EPS maximization. The EPS criterion is an important performance measure but not a decision criterion. However, it is an index of the firm's performance and that investors rely heavily on it for their investment decisions.

## **B. Cost of Capital and Valuation Approach**

The cost of source of finance is the minimum return expected by its suppliers. The expected return depends on the degree of risk assumed by the investors. A high degree of risk is assumed by shareholders than debt-holders. Debt is a cheaper source of funds than equity. The preference share capital is also cheaper than equity capital, but not as cheap as debt. Thus, using the component, or specific, cost of capital as a criterion for financing decisions and ignoring risk, a firm would always like to employ debt since it is cheapest source of funds. Based on the cost of capital criterion of decision making, two approaches are followed. They are (i) Pecking order hypothesis and (ii) Trade-off theory.

### ***(i) Pecking Order Hypothesis***

It is found in practice that firms prefer internal finance<sup>17</sup>. Between the equity funds and retained earnings, the latter is preferred. If the internal sources are insufficient to meet the investment outlays, firms go for external finance. They start with debt, then possibly hybrid securities such as convertible debentures, then perhaps equity as a last resort<sup>18</sup>. Myers has called it the pecking order theory since there is not a well-defined debt-equity target and there are two kinds of equity, internal and external, one at the top of the pecking order and one at the bottom.

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<sup>16</sup> Solomon, E. and Pringle, *An Introduction to Financial Management*, Prentice-Hall of India, 1978. P.449.

<sup>17</sup> Donaldson, G., *Corporate Debt Capacity*, Harvard Business School, 1961.

<sup>18</sup> Myers, S.C., The Capital Structure Puzzle, *Journal of Finance*, 3 (July 1984), p.581.

### ***(ii) Trade-off Theory***

The criterion for the financing decision should be to minimize the overall cost of capital or to maximize the value of the firm. The company cannot continuously minimize its overall cost of capital by employing debt. A point or range is reached beyond which debt becomes more expensive because of the increased risk of excessive debt to creditors as well to shareholders. Hence there is a combination of debt and equity which minimizes the firm's average cost of capital and maximizes the market value per share.

The valuation framework makes it clear that excessive debt will reduce the share price and thereby lower the overall return to shareholders, despite the increase in EPS because the return of shareholders is made of dividends and appreciations in share prices, not of EPS. Thus, the impact of debt-equity ratio should be evaluated in terms of value, rather than EPS. It is not possible for the managers to quantify all variables. But this kind of analysis does provide insights and qualitative guidance to the decision maker. The trade-off between cost of capital and EPS set the maximum limit to the use of debt. However, other factors should also be evaluated to determine the appropriate capital structure for a company.

### **C. Cash Flow Approach**

One of the features of a sound capital structure is conservatism. Conservatism is related to the fixed charges created by the use of debt or preference capital in the capital structure and the firm's ability to generate cash to meet these fixed charges. A firm is considered prudently financed if it is able to service its fixed charges under any reasonably predictable adverse conditions. One important ratio which should be examined at the time of planning the capital structure is the ratio of net cash inflows to fixed charges (debt-servicing ratio). It indicates the number of times the fixed financial obligations are covered by the net cash inflows generated by the company. Greater the coverage, higher the amount of debt a company can use. However, a company with a small coverage can also employ a large amount of debt if there are not significant yearly variances in its cash inflows. It is not the average cash inflows but the annual cash inflows which are important to determine the debt capacity of a firm. Fixed financial obligations must be met with when due, not on an average or in most years but, always. This necessitates a full cash flow analysis.

***(i) Debt Capacity***

The technique of cash flow analysis is helpful in determining the firm's debt capacity. Debt capacity is the amount which a firm can service easily even under adverse conditions. It is the amount that the firm should employ. Debt capacity should be analyzed in terms of cash flows rather than debt ratios.

***(ii) Components of Cash Flows***

The cash flows should be analysed for a longer period of time, which can cover the various adverse phases, for determining the firm's debt policy. The cash flow analysis can be carried out by preparing cash flow statements to show the firm's financial conditions under adverse conditions such as a recession. The expected cash flows can be categorized into three groups, namely, operating cash flows, non-operating cash flows and financial cash flows.

**4. Significance of Capital Structure**

Capital structure decision is a vital one for any firm, because the nature and quality of capital structure directly affects the cost of capital as well as the market value of a firm. That is why finance manager always tries to have a balanced and appropriate capital structure, which indicates the right mix of different kinds of securities.

Every source of capital bears its own cost. Though debt creates a fixed financial charge, it is the cheapest source of funds, due to the tax treatment of interest. Similarly, retained capital also has a less cost than the equity cost. In the case of preference capital, after paying tax, dividend is to be paid. Hence, before tax, cost of preference capital is high. The cost of equity capital is the highest as equity shareholders are the last claimants of earnings of a firm. By considering different nature of the cost of capital of each source, finance manager has to frame the capital structure that minimizes the overall cost of capital and gives the maximum benefits to the owners of a business. Thus, the objective of framing the capital structure, i.e., debt-equity mix, the management should consider the impact of leverages and trading on equity.

### **III. The Leverages and Trading on Equity**

As stated earlier, a company can finance its investments by debt and / or equity. The company may also use preference capital. The rate of interest on debt is fixed irrespective of the company's rate of return on assets. The company has a legal binding to pay interest on debt. The rate of preference dividend is also fixed; but preference dividends are paid only when the company earns profits. The common shareholders are entitled to the residual income. That is, earnings after interest and taxes (less preference dividends) belong to them. The rate of the equity dividend is not fixed and depends on the dividend policy of a company. The use of the fixed-charges sources of funds, such as debt and preference capital along with the owner's equity in the capital structure, is described as financial leverage or trading on equity. The use of the term "trading on equity" is derived from the fact that it is the owner's equity that is used as a basis to raise debt, that is, the equity that is traded upon. The supplier of debt has limited participation in the company's profits and, therefore, he will insist on protection in earnings and protection in values represented by ownership equity<sup>19</sup>.

The financial leverage employed by a company is intended to earn more on the fixed charges funds than its costs. The surplus (or deficit) will increase (or decrease) the return on the owner's equity, i.e., the rate of return on the owners' equity is levered above or below the rate of return on total assets. This role of financial leverage suggests a point to considering the rate of interest paid as the fulcrum used in applying forces through leverage. It suggests consideration of pertinent variables; lower the interest rate, greater will be the profit, and lesser the chance of loss; lesser the amount borrowed the lower will be the profit or loss; also, greater the borrowing, greater the risk of unprofitable leverage and greater the chance of gain.

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<sup>19</sup> Waterman, Merwin H., Trading on Equity, in Eitman, W.J. (ed.), *Essays on Business Finance*, Masterco Press, 1953.

## **1. Effect of Financial Leverage on the Shareholder's Return**

The primary motive of a company in using financial leverage is to magnify the shareholder's return under favorable economic condition. The role of financial leverage in magnifying the return of the shareholders is based on the assumption that the fixed charges funds (such as the loan from financial institutions and other sources or debentures) can be obtained at a lower cost than the firm's rate of return on net assets. Thus, when the difference between the earnings generated by assets financed by the fixed-charges funds and costs of these funds is distributed to the shareholders, the earnings per share (EPS) or return on equity (ROE) increases. However, EPS or ROE will fall if the company obtains the fixed-charges funds at a cost higher than the rate of return on the firm's assets. It should, therefore, be clear that EPS, ROE and ROI are the important figures for analyzing the impact of financial leverage.

## **2. Degree of Financial Leverage**

Financial leverage affects the earnings per share. When the economic conditions are ideal and the firm's EBIT is increasing, its EPS increases faster with more debt in the capital structure. The degree of financial leverage (DFL) is defined as the percentage change in EPS due to a given percentage change in EBIT.

## **3. Financial Leverage and Shareholders' Risk**

Financial leverage magnifies the shareholders' earnings. At the same time the variability of EBIT causes EPS to fluctuate within wider ranges with debt in the capital structure, i.e., with more debt, EPS rises faster than the rise and fall in EBIT. Thus, financial leverage not only magnifies EPS but also increases its variability. The variability of EPS caused by the use of financial leverage is called financial risk. A totally equity financed firm will have no financial risk. But when debt is used, the firm adds financial risk. Financial risk is thus an avoidable risk if the firm decides not to use any debt in its capital structure.

## **4. Measures of Financial Leverage**

The most commonly used measures of financial leverage are the ratio of debt to equity, debt to total capital and interest coverage ratio calculated with the ratio of net

operating income to interest charges. The first two measures of financial leverage can be expressed in terms of book or market values. The market value to financial leverage is theoretically more appropriate because market values reflect the current attitude of investors. But it is difficult to get reliable information on market values in practice. The market values of securities fluctuate quite frequently. The third measure of financial leverage, commonly known as coverage ratio, indicates the capacity of the company to meet fixed financial charges. The debt to equity ratio, as a measure of financial leverage, is more popular in practice. There is usually an accepted industry standard to which the company's debt to equity ratio is compared. The company is to be considered risky if its debt to equity ratio exceeds the industry standard. Financial institutions and banks in India also focus on debt to equity ratio in their lending decisions. By comparing the company's coverage ratio with an accepted industry standard, the investors, can get an idea of financial risk.

However, several ratios may be used to determine the proportion of debt in total financing and to analyse the long term solvency of a firm. Debt-equity ratio is directly computed by dividing total debt by net worth (I.M.Pandey, 1999). In a comprehensive study of Indian corporate sector made by Chakraborty (1997), Raghvir Kaur and N Krishna Rao (2009) total debt has been considered to calculate the debt-equity ratio. In some of the studies, Alan A. Bevan and Jo Danbolt (2002), Saumitra N. Bhaduri (2002), Robert W. Hutchinson and R.Lloyd Hunter (2001) total debt to total asset, long term debt to total asset and short term debt to total asset have been used to measure the leverage.

#### **IV. Profitability and its Significance**

Profitability is the ability of a company to generate profit.<sup>20</sup> It is an overall measure which depicts the efficiency and effectiveness at which the company has been operating. It indicates the overall results of the management's decision. Further, it reflects how best the company has put to use its scarce resources to generate a higher rate of profitability. Profitability is also taken as a criterion to measure and assess the relative efficiency of the management of a company to generate profit. A company which

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<sup>20</sup> Fred, Weston J. and Eugene, F.Brigham, *Managerial Finance*, The Dryden Press Hinsdale, U.S.A.



generates a higher rate of profitability is considered to be more efficient than other companies. Profitability is also essential for project evaluations, valuation of goodwill and share and to assess the dynamism, vitality and growth potential of an organization. The financial institutions, investors and credit analysts have started giving more attention to the firm's earning capacity as a measure of its financial strength. The overall objective of a business is to earn return on the funds invested in it, consistent with maintaining a sound financial position.

## **V. Statement of the Problem**

Profitability of every commercial and industrial unit is being affected by its financial pattern, i.e., capital structure. Even if the earnings power may be the same for two comparable units, still the profit on net worth may be different just because of differences in the capital structure of the units. In fact, capital structure has its impact on the cost of capital, which, in turn, influences investment decisions of a firm. From this point of view, capital structure and its maneuverability may also influence the operating income, besides its inflating influence on the earnings available to shareholders. But, too much of controversy is found in various theories formulated in this regard. Some of the theories such as Net Income Approach and Traditional Approach support the above idea, while some other theories such as Net Operating Income Approach and M-M approach do not. Even the empirical researches are found controversial and contradictory.

Capital structure is aimed at producing a higher rate of return on capital at a lower average cost of capital. There has been an alarming shift in the debt-equity compositions of Indian corporate. While the role of equity capital as a source of long term finance declined over the years, dependence on debt as a source of long term finance has increased substantially, with the result that capital formation is characterized by high capital gearing leading to greater financial risk. The Anglo-Saxen theory states that debt should not exceed about one third of the total capital structure of a corporation, because, interest on loan has to be paid irrespective of the financial soundness of the enterprise.

Companies with high debt-equity ratio typically have a higher cost than do their less leveraged counterparts, as witnessed in debt rating services such as Standard and Poor's and Moody's. In fact, at extremely high leverage, debt investors face a similar set

of investment risks as equity investors. The crucial problem now facing companies while raising funds is whether to raise debt or equity.

India's services sector has matured considerably during the last few years and has been globally recognized for its remarkable growth and development. This sector has been growing at an annual growth rate of about 28% during the last 5 years. An extrapolation of Reserve Bank data by India Brand Equity Foundation in fact shows that service exports could topple merchandise exports in the medium term. The Government of India is taking up utmost care to uplift this potential sector which contributes heavily in India's foreign exchange. These developments articulate that the services sector in India becoming the most formidable component of the country's economy. To sustain in its growth to facilitate economic growth of India and to give more employment in an environment of heavy global competition, the services sector industries in India needs substantial capital. As discussed earlier, it is clear that the profitability of every commercial and industrial unit is being affected by its financial pattern i.e., capital structure. Hence the following questions are raised in the minds of the researcher and the present study attempts to answer these questions.

1. What is the contribution of each component of capital to the total funds of services sector industries in India?
2. Based on their rate of growth whether the debt-equity ratios of services sector industries in India differ significantly?
3. Which are the variables that strongly influence the capital structure of services sector industries in India?
4. Whether the degree of financial leverage has any impact on the EPS of services sector industries in India? and
5. Is there any influence of capital structure on the profitability of services sector industries in India?

## **VI. Need for the Study**

Until the liberalization of 1991, India was largely and intentionally isolated from the world markets, to protect its economy and to achieve self-reliance. Foreign trade was subject to import tariffs, export taxes and quantitative restrictions, while foreign direct

investment (FDI) was restricted by upper-limit equity participation, restrictions on technology transfer, export obligations and government approvals. The restrictions ensured that a very little FDI between 1985 and 1991. Since liberalization, the value of India's international trade has increased sharply, with the contribution of total trade in goods and services to the GDP rising from 16% in 1990–91 to 43% in 2005–06. The Indian economy has been rapidly changing in the recent past. Many market-oriented reforms have been introduced in the financial sector particularly after the liberalization period. The move towards the free market, together with the capital market has provided the scope for the corporate sectors to optimally determine their capital structure. Furthermore, the important determinants of corporate capital structure of the Indian companies have been changing from period to period due to the various policy measures taken by the Government of India. Such an environment encouraged the present study. This study shall highlight the importance of an efficient financial management and shall be useful to the corporate management, investors and government at large to take valuable decisions at their own end. The study has academic relevance too in so far as new theoretical and practical knowledge would be added to the existing stock of knowledge. No doubt the present study will provide directions for further research and development.

## **VII. Objectives of the Study**

The study approaches the problem with a view to evaluating the financial leverage and its influence on the profitability of selected services sector industries in India. The following are the broader objectives of the study.

1. To analyse the components of capital structure of selected services sector industries in India.
2. To analyse the debt – equity ratios of selected services sector industries in India.
3. To analyse the factors determining the capital structure of selected services sector industries in India.
4. To analyse the financial leverage of selected services sector industries in India.
5. To study the impact of capital structure on profitability of selected services sector industries in India.

## **VIII. Hypothesis of the Study**

In the light of the above objectives the following hypotheses have been framed in order to test its validity in the context of selected services sector industries in India.

1. There is no significant difference among the high, moderate and low growth companies of selected services sector industries in India in their debt-equity ratios.
2. There is no significant variation in the debt-equity ratios among the years (In the study period) of selected services sector industries in India.
3. The mean debt-equity ratios do not vary across high, moderate and low growth companies based on changes in years of selected services sector industries in India.
4. There is no significant influence of degree of financial leverage on earnings per share of selected services sector industries in India.
5. There is no significant influence of debt-equity choice on Return on Equity (ROE) and Earnings per Share (EPS) of selected services sector industries in India.

## **IX. Methodology**

The objective of this section is to present the methodology adopted in collection and analysis of data for this study. An attempt has been made to discuss the scope of the study, operational definitions of the variables used in this study, sources of data, sampling design, period of study, techniques used for the analysis and interpretation of the data. The limitations of the study are also included at the end.

### **1. Scope of the Study**

The study aims to analyse the debt-equity structure, its determinants and its impact on the profitability of selected services sector industries in India for a period of 15 years from 1995-96 to 2009-2010. The study confines only listed private sector companies of selected services sector industries in India. Public sector companies are excluded since they are not established with an aim of earning profits in India. Only the listed public limited companies are included for the purpose of finding homogeneity among the sample units. The study does not consider the external factors which may likely to affect the capital structure of a firm. The main drawbacks of external factors are

that they are uncontrollable in nature and likely to change as time go by. Moreover, they cannot be quantified or measured suitably. Any study, no doubt is effective if it is based on the primary sources of information. As far as the study on determinants of capital structure is concerned, many authors both at national and international levels (as specified in the review of literature) made their contributions through secondary data only. Few authors enrich the concept through primary source of information but they also pointed out an important limitation to get the reliable information from the finance executives of the company. The response level for previous studies conducted through primary data method was not so encouraging.<sup>21</sup> This persuades the researcher to use secondary data for this study.

The study will help the finance executives in appraising the financial needs of their companies. The investors too can take a rational judgment about the degree of financial risk and decide on their possible investment strategy, which will yield maximum return to their investment.

## **2. Research Design**

The research design used for the study is Diagnostic Research Design. A diagnostic study is one where the frequency with which something occurs or associations between variables are studied. This study is concerned about whether selected variables are associated with the debt equity ratio which represents the capital structure. Since, the researcher has used facts or information already available and analyse these to make a critical evaluation, this study can safely be categorized as analytical research.

## **3. Operational definition of variables**

An attempt is made to define the variables and their measurements used in this study. Various measures have been evolved in the past four decades to measure the financial leverage and its determinants. Consistently, different studies concentrate on a range of variables in assessing the determinants of capital structure and its impact on the profitability. Needless to say the measures of financial leverage and related variables are

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<sup>21</sup> ABHIGYAN, Vol.XVI, July-Sep 1998. P.10

not free from controversy. In this section, the various firm specific attributes suggested by capital structure theories and empirical studies, which are used in this study, have been mentioned below:

**(i) Debt-Equity Ratio**

Debt-equity ratio is directly computed by dividing total debt by net worth. Total debt will include short and long-term borrowings from financial institutions, debentures/bonds, deferred payment arrangements for buying capital equipments, bank borrowings, public deposits and any other interest-bearing loan. The net worth includes paid-up share capital, share premium and reserves and surplus less accumulated losses.

**(ii) Asset Structure**

A firm with large portion of tangible assets can afford to have high debt equity ratios in their capital structure. According to trade-off theory, a positive relation can be expected between debt equity ratio and asset structure having a large portion of fixed assets. The ratio of net fixed assets to total assets is taken to be the measure of asset structure in this study.

**(iii) Trading on Equity**

Rate of interest on debt is fixed irrespective of the company's rate of return on assets. The company has a legal binding to pay interest on debt. The rate of preference dividend is also fixed; but preference dividends are paid when the company earns profits. The common shareholders are entitled to the residual income. The financial leverage employed by a company is intended to earn more on the fixed charges funds than their costs. This is calculated using the measure  $EBIT/EBIT-Interest$ .

**(iv) Liquid Assets**

As per pecking order theory firms have a preference for internal funds over external. This is captured by maintaining liquidity. Firms that are maintaining their liquid resources are not essentially in the need of debt or borrowings from outside. Therefore, a negative relation is expected between liquidity and debt. Alternatively, trade off theory suggests that a firm should have high liquidity in order to servicing high debt. Even

Jensen's (1986)<sup>22</sup> free cash flow theory suggests a positive relation between liquidity and debt ratio as cash rich firms should have a tendency to acquire additional debt so that very little extra cash is available for managers to squander, after meeting the debt servicing obligation. By dividing Liquid Assets (Cash + Bank + Marketable securities) by Total assets, this variable is measured.

#### **(v) Profitability**

If managers of a firm cannot credibly convey inside information to outsiders, they prefer internally generated capital to external financing (Myers and Majluf 1984)<sup>23</sup>. A profitable firm has the potential to absorb a large amount of interest payments and thus derive tax shield arising out of a high debt ratio which is not the case with a less profitable firm. Thus a positive relation can be expected between profitability and debt ratio according to trade-off theory. On the other hand, pecking order theory suggests a negative relation as high profits mean a larger amount of retained earnings, given the dividend policy which is usually sticky and lesser reliance on external finance. Thus profitability is an important variable under both the theories. Profitability is taken to be the percentage of earnings before interest and tax to capital employed. Capital employed has been calculated by adding net worth to long term debt.

#### **(vi) Size**

According to the trade-off theory, as the proportion of debt increased in the capital structure, bankruptcy costs appears to be a constituent in the total value of the firm. Firm's debt taking capacity is also influenced by its size. Titman and Wessels (1988)<sup>24</sup> suggested that mostly larger firms are more diversified and therefore, there are less chances of their bankrupt. In this respect trade-off theory may suggest a positive relation between debt and firm size. Alternatively, Kakani (1999)<sup>25</sup> following Weston and

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<sup>22</sup> Jensen, M.C. (1986), Agency Costs of Free Cash Flow, Corporate Finance and Takeovers, *American Economic Review*, Vol.76. Pp.323-329.

<sup>23</sup> Myers, S.C. and Majluf, S.N. (1984), Corporate Financing and Investment Decisions When Firms have Information that Investors Do not have, *Journal of Financial Economics*, Vol.13 Pp. 187-221.

<sup>24</sup> Titman, S, and Wessels, R, (1988), The Determinants of Capital Structure Choice, *Journal of Finance*, Vol. 43, No.1, Pp. 1-19.

<sup>25</sup> Kakani, R.K, (1999), The Determinants of Capital Structure: An Econometric Analysis, *Finance India*, Vol.13, No1, Pp.51-69.

Brigham (1981)<sup>26</sup> argued that larger firms, in case of financial requirements, may go for additional issue of external equity, which will have very little impact on its control. Thus, negative relation is expected under pecking order theory between debt and firm size. Size has been measured by Total Assets of the firm.

#### **(vii) Business Risk**

Financial prudence suggests that firms having high business risk in the form of variability in the operating profit should not go for high financial risk in the form of high debt equity ratio. Both trade-off and pecking order theories suggest a negative relation between business risk and debt equity ratio. For the present study business risk is measured as the standard deviation of earnings before interest and tax.

#### **(viii) Growth**

Myers (1977)<sup>27</sup> argued that firms with growth opportunities may find it difficult and costly to rely on debt for financing, as the degree of risk may be high for growth oriented investments. Therefore, a negative relation is expected between growth and debt as per trade off theory. Alternatively, as per pecking order theory high growth firms have greater need for funds and are, therefore, expected to borrow more. In this regard a positive relation is expected between debt and growth opportunities at least for large mature firms. Annual growth rate of Total Assets have been taken as a measure of growth opportunities. It is calculated as follow:  $\frac{TA(t) - TA(t-1)}{TA(t-1)}$ , where, TA- Total Assets, t-current year.

#### **(ix) Debt Service Capacity**

This measure indicates the capacity of the company to meet fixed financial charges. By comparing the company's coverage ratio with an accepted industry standard, the investors can get an idea of financial risk. It is calculated by dividing the EBIT by interest on debt.

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<sup>26</sup> Weston, J.F, and Brigham, E, (1981), *Managerial Finance*, 7/E, Dryden Press, Hinsdale, II.

<sup>27</sup> Myers. S.C, (1997), Determinants of Corporate Borrowing, *Journal of Financial Economics*, Vol.5, Pp. 147-175.



### **(x) Corporate Tax**

Interest on debt can be utilized for the tax exemption. When more tax exemption is there, the shareholders residual value will improve. It suggests the tax benefits of debt financing. This is obtained by the measure of dividing provision for tax by profit before tax.

### **(xi) Collateral Value of Assets:**

A firm with high collateral value of assets can have high debt equity ratio. There is a positive relationship is expected between debt equity ratio and collateral value of assets. This is computed by dividing the collateral value of assets by total assets. Collateral value of assets includes accounts receivable + inventory + net fixed assets. Accounts receivables and inventory can be utilized to get short term debt from financial institutions.

### **(xii) Non Debt Tax Shield (NDTS)**

De Angelo and Masulis (1980)<sup>28</sup> considered items like depreciation, research and development expenditure that also provide tax shield but are not related to debt. The larger the quantum of non-debt tax shield the lesser will be the motivation of managers to go in for debt in their capital structure. A negative relationship is expected under the trade-off theory between NDTS and debt ratios. Pecking order theory considers tax benefits whether arising out of debt or non-debt sources as of secondary importance and hence no relation is expected. It is measured by dividing the depreciation by total assets.

### **(xiii) Deposits**

This variable is used only for the banking services industry. Deposits are the ratios of demand deposits to total deposits which capture the bank's relative cost of funds. Demand deposits are relatively inexpensive source of funds because demand deposits, particularly in developing countries, frequently pay less than market interest rates to carry lower interest costs, thus increasing bank profitability. On the other hand, demand deposits are costly in terms of the required branching network which leads to increasing costs. Here again, the net impact of deposits is uncertain (Siva Reddy Kalluru, 2009)<sup>29</sup>.

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<sup>28</sup> Deangelo, H. and Masulis, R. (1980), Optimal Capital Structure Under Corporate and Personal Taxation, *Journal of Financial Economics*, Vol. 8, Pp. 3-29.

<sup>29</sup> Siva Reddy Kalluru, 2009, Ownership Structure, Performance and Risk in Indian Commercial Banks, *The Icfai Journal of Applied Finance*, Vol 15, No.8, 2009.

**(xiv) Total Loan Portfolio**

This variable is used only for the banking services industry. Loans are the ratios of advances to total assets. Conventionally, banks collect deposits and transfer them into loans. It might be more profitable than other types of assets like securities. Other things being equal, the more the deposits are transformed into loans, the higher the interest margin and profits. However, loans might also be more expensive to produce as its performance is associated with standard of loan collateral that might result in higher delinquencies and non-performing loans, which result in decreasing interest margins. The net impact of loans is, therefore, uncertain.

**(xv) Earnings Per Share**

The profitability of the common shareholders' investment can be measured in many ways. One such measure is to calculate the earnings per share. The earnings per share is calculated by dividing the profit after taxes and preference dividend by the total number of common shares outstanding.

**(xvi) Degree of Financial Leverage (DFL)**

The financial leverage affects the earnings per share. When the economic conditions are good and the firm's EBIT is increasing, its EPS increases faster with more debt in the capital structure. The degree of financial leverage is defined as the percentage change in the EPS due to a given percentage change in EBIT.

**(xvii) Return on Equity (ROE)**

This is probably the single most important ratio to judge whether the firm has earned a satisfactory return for its equity holders or not. Common or ordinary shareholders are entitled to the residual profits. ROE is calculated by dividing the profit after tax and preference dividend by net worth and converted into percentages. The net worth will include paid-up equity share capital, share premium and reserves and surplus less accumulated losses.

#### 4. Sampling Design

The study is confined to the selected services sector industries in India. Initially, 13 industries were identified in the services sector of India. All the listed, private sector companies in these industries which have maintained its identity and reported their annual accounts without any gaps for the years from 1995-96 to 2009-10 with sufficient information in the annual accounts for estimating the variables of this study for the entire study period of 15 years with positive net worth have been selected for the study. The industries which have more than 5 companies in the list when applied the above criteria are only considered for the study. Three industries, namely, business consultancy, storage and distribution and communication are excluded from the list since they have less than 5 companies in the sample list. Finally, based on the criterion 260 companies are identified across 10 services sector industries in India. All the 260 companies have been chosen for the study. By using judgement sampling they were classified as shown in the following table:

**Table – 2**  
**Industry Wise Distribution of Number of Sample Companies**

<b>Name of the Industry</b>	<b>Number of Companies</b>
1.Asset Financing Services	34
2.Banking Services	13
3.Fee Based Financial Services	17
4.Health Services	09
5.Hotels & Tourism	23
6.Information and Technology	45
7.Investment Services	31
8.Recreational Services	08
9.Transport Services	14
10.Wholesale & Retail Trading	66
<b>Total</b>	<b>260</b>

The list of sample companies selected for the study is given in the annexure I.

#### 5. Sources of Data

The study is based on secondary data. The data required for the present study are drawn from the Centre for Monitoring Indian Economy (CMIE) PROWESS data base. The PROWESS data base provides the data of the audited balance sheets and income and

expenditure statements of the reported enterprises. Further the data were also collected from RBI Bulletin and Annual Survey of Industries (ASI). Apart from these, reports of the various committees, research journals, business magazines and newspapers were referred to.

## **6. Period of Study**

The present study covers a period of 15 years from 1995-96 to 2009-10 in order to evaluate the financial leverage in the services sector industries in India. The services sector has found its importance in India after the economic reforms in 1991.

## **7. Tools of Analysis**

Mathematical and statistical tools like ratios, mean, standard deviation, coefficient of variation, compounded annual growth rate, Repeated Measures ANOVA, regression analysis and multiple regression analysis have been used for the purpose of testing the hypothesis and to draw the inferences. The 't' test and 'F' test have been applied to test the validity of hypothesis.

## **8. Limitations of the Study**

1. This study is based on secondary data taken from published annual reports and accounts of selected companies and as such its findings depends entirely on the accuracy of such data and there is no primary data is used in this study.
2. There are different methods to measure the financial leverage of an industry. In this connection views of experts differ from one another.
3. The present study is largely based on ratio analysis which has its own limitations.
4. The analysis of financial statements of business enterprise gives diagnostic indicators. Researchers being outside external analyst obviously have no access to internal data. Therefore, internal view of the organization can't be characterized in the study.
5. The present study has excluded the public sector enterprises and the firms which are not listed in the stock exchanges.
6. The study does not consider some of the external factors which may likely affect the capital structure of a firm.

## **X. Organization of Thesis**

The report has been organized and presented in eight chapters as follows.

### **CHAPTER I INTRODUCTION**

The first chapter presents the background of the study highlighting the importance of services sector, concepts of capital structure and an overview of the current research work including methodology of the study.

### **CHAPTER II REVIEW OF LITERATURE**

The second chapter reviews the various studies made with respect to the capital structure which presents the various capital structure dimensions and the findings of these studies. This chapter also outlines the research gap in the area of capital structure.

### **CHAPTER III ANALYSIS OF THE COMPONENTS OF CAPITAL STRUCTURE OF SELECTED SERVICES SECTOR INDUSTRIES IN INDIA**

This chapter highlights the contribution of each component of capital structure of services sector industries in India.

### **CHAPTER IV ANALYSIS OF DEBT – EQUITY RATIOS OF SELECTED SERVICES SECTOR INDUSTRIES IN INDIA.**

This chapter has been devoted to analyse the debt-equity ratios of selected services sector industries in India.

### **CHAPTER V THE DETERMINANTS OF CAPITAL STRUCTURE OF SELECTED SERVICES SECTOR INDUSTRIES IN INDIA**

This chapter mainly concentrates on the analysis of determinants of capital structure of selected services sector industries in India.

**CHAPTER VI ANALYSIS OF FINANCIAL LEVERAGE OF SELECTED SERVICES SECTOR INDUSTRIES IN INDIA**

This chapter deals with the analysis of financial leverage of selected services sector industries in India. The outcome of the analysis of this objective is discussed in this chapter.

**CHAPTER VII THE IMPACT OF CAPITAL STRUCTURE ON THE PROFITABILITY OF SELECTED SERVICES SECTOR INDUSTRIES IN INDIA**

In this chapter an analysis is made to test the impact of debt-equity choice on the profitability of selected services sector industries in India.

**CHAPTER VIII SUMMARY AND CONCLUSION**

This chapter presents the summary of the findings related to the objectives of the study. It also provides some light for future research and the conclusion of the study based on the outcome of the analysis.