APPENDIX-A
APPENDIX - A

SOURCES OF INFORMATION FOR ORGANIZATIONAL APPRAISAL:

The strategists need to tap different types of information sources for organizational appraisal. These sources may be verbal as well as written. They may also be internal or external sources. The assessment of organizational capability may rely on favours' opinion, company files and documents, financial statements, management information system and other internal sources. For comparative appraisal with similar organizations in the industry and across industries, it may be necessary to have access to external sources of information like company reports, publications of industry association and other documentary sources like magazines and journals. For systematic, plus ad hoc studies, help may be sought from consultants. In short, I could say that the sources of information used for environmental appraisal could be partially used for organizational appraisal as well.

IMPORTANCE AND USEFULNESS OF PERFORMANCE APPRAISAL:

In any economic society, all active participants do become interested in varying degrees in the performance of the business enterprise. "Within every commercial enterprise, of whatever size, there are inevitably many different interests to be served."¹ Some of these interest groups have been identified in figure 39.

1. **To the Management:** By appraising the performance through financial statement analysis, management may review a company's progress to date and decide upon the course of action to be taken in future. Performance appraisal helps management in the task of planning of operations. The performance appraisal programme enables the management to operate the control system of the business organization more effectively. It helps to spot weaknesses in the company's operations and to take corrective action. Furthermore, it tends to restrain management, as they are under pressure to maintain a favourable financial position. "Management can measure the effectiveness of its own policies and decisions, determine the
advisability of adopting new policies and procedures and documents to owners the result of their management efforts.\(^1\)

2. **To the Investors:** Investors comprising shareholders and debenture holders have a vital interest in the appraisal of performance of an enterprise. Investors are interested in two things: firstly, they want the safety of their investment; secondly, the ability of a company to earn profit. They are also interested in a concern whose future is bright. Through performance appraisal they get the information which they need.

3. **To the Creditors:** Creditors are interested in ascertaining whether the company can employ the funds loaned to it in such a way that it will be able to meet current interest obligations and repay the loan when it falls due. They act as a magic eye, highlighting the creditworthiness of a company. Creditors often appraise the performance of a company before lending the money and supplying the goods.

4. **To the Government:** Government regulates economic activities in various spheres. Central and State Governments and local authorities are also interested in knowing the performance of a business in order to assess their revenues through various taxes, to regulate capital issue and for public utility regulation.

5. **To the Favours:** Favours have an interest in the operating results and the financial strength of a company. The remuneration of workers must be generated from the company's revenues. Thus, worker's wages, to a great extent, depend upon the success of the firm. Labour unions often use the performance data as a basis for their demand of increase in wages. The past operating performance of the business, as well as its current financial position is often studied to measure the ability of the enterprise to meet its new wage commitments.

6. To the Society: Every business enterprise has its social responsibility. Although managers, owners, creditors, and favours are members of the society and have their respective interest in the business, individuals or groups of individuals apart, the society as a whole has some expectations from the business. So, they all are interested in knowing the social performance, such as environmental obligations, labour and social welfare, employment generation, regional development, etc.

In addition to the above, new agencies associations, economic and commercial research institutions, stock exchanges, economist and research workers, Members of Parliament and Members of Public Accounts Committee in respect of government companies are also interested in the result of performance appraisal to know the progress being made in the present position of an industry.

MEANING AND CONCEPT OF FINANCIAL STATEMENT:

Financial statements are summarized report of accounting transactions. They can apply to any point of time and to any span of time.¹

The term financial statement as used in modern business refers to the two statements, which the accountant prepares at the end of a period of time for a business enterprise. They are the balance sheet, or statement of financial position, and the income statement, or profit and loss statement. To the statements of corporations there is added a third statement, the retained earnings (surplus) statement, which reconciles the balance in this account at the end of the period with that at the beginning. Some accountants prepare a similar statement for individual proprietorships and partnerships, which is called the statement of

capital and reconciles the capital at the end of the period with that at the beginning.

Various schedules are often used to supplement the data contained in the financial statements. They consist of such schedules as the schedule of property, plant, and equipment, the schedule of accumulated depreciation, depletion, and amortization of property, plant, equipment, and other assets, the schedule of reserves, and so forth. These schedules will be considered part of the statements to be analyzed; in fact, they constitute the first step in the analysis of certain data in the balance sheet and income statement.

The financial statements provide a summary of the accounts of a business enterprise, the balance sheet reflecting the assets, liabilities, and capital as on a certain date and the income statement showing the results of operations during a certain period.¹

The stakeholders of a firm, viz. shareholders, creditors, suppliers, managers, favours, tax authorities, and others, are interested broadly in knowing about how the firm is doing and what is its financial condition. Of course, their specific concerns may differ. Trade creditors and short-term lenders are interested primarily in the short-term liquidity of the firm and its ability to pay its dues in the next 12 months or so. Term lending institutions and debenture holders have a relatively longer time horizon and are concerned about the ability of the firm to service its debt over the next five to ten years. Long-term shareholders and managers who want to make a career with the firm are interested in the profitability and growth of the firm over an extended period of time.

To understand the financial performance and condition of a firm, its stakeholders look at three financial statements, viz. the balance

sheet, the profit and loss account, and the sources and uses of funds statement. The balance sheet shows the financial position (or condition) of the firm at a given point of time. The profit and loss account (also referred to as the income statement) reflects the financial performance of the firm over a period of time—typically it is drawn up for a period of one year. The sources and uses of funds statement portray the flow of funds into and from the business during a given accounting period. Thus, the key questions answered by the three financial statements are:

**Balance Sheet**  What is the financial position of the firm at the end of the accounting period?

**Profit and Loss Account**  How did the firm perform over the accounting period?

**Sources and Uses of Funds Statement**  What have been the sources and uses of funds during the accounting period?

Note that the Companies Act requires that the Annual Report of the company, which is a public document that is sent to shareholders, contain the balance sheet, profit and loss account, directors' report, and the auditors' report. Though not presently required by law, most companies present sources and uses of funds statement as well in the Annual Report.¹

The basic financial statements include the 'Balance Sheet', 'Income Statement', 'Statement of Retained Earnings and the 'Sources and Uses of Funds Statement'. The financial statements taken together give an accounting picture of the firm's operations and financial position. In case of a limited company, financial statements also include the Directors' Report, Chairman's speech and Auditors' Report. Certain information is also appended to the balance sheet in the form

of schedules. These schedules mainly supplement the data contained in financial statements and is considered essential for the purpose of analysis.

The balance sheet is also known as "statement of condition", "statement of financial position", "statement of assets and liabilities and capital" and "statement of worth." For a moment, balance sheet may be taken as a mirror that shows the financial position of the business at a particular moment, generally the last day of the accounting year.

The profit and loss account gives a summarized view of income received and expenditure incurred in connection with the business operations held during an accounting year. "The income statement is the schedule that shows the income and expenses of a business enterprise over a period of time, and then, gives a final figure representing the amount of profit or loss of the accounting period." The other titles used for the profit and loss account are (1) Statement of Earned Surplus (ii) Income Statement (iii) Statement of Income and Expenses (iv) Statement of Earnings, and (v) Statement of Operations.

To sum up, balance sheet might be described as financial cross section taken up at certain intervals and the earning statement as a condensed history of the growth or decay between the cross sections.

**NATURE OF FINANCIAL STATEMENTS:**

Financial statements are plain statements of informed opinion uncompromising in their truthfulness which means that within the limits

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of accepted accounting principles and of the very human abilities of the persons preparing them, they are to rest on judgments and estimates divorced of fancy and prejudice. According to the American Institute of Certified Public Accountants, "Financial statements reflect a combination of recorded facts, accounting conventions, and personal judgments, and the judgments and conventions applied affect them materially".\(^1\) Therefore, the data exhibited in these financial statements are the result of the combined effect of (1) Recorded Facts (2) Accounting Conventions, and (3) Personal Judgment.

(1) Recorded Facts

The term "recorded facts" means that the data used for preparing financial statements are taken from the accounting records. The financial statements do not disclose such facts as are not recorded in the accounting books whether or not such facts are material. The market value or the replacement cost of a fixed asset is not stated in the balance sheet because as per the accounting records the cost price of the fixed assets is a recorded fact.\(^2\)

Financial statements do not disclose such facts as cannot be recorded in terms of money, e.g., health of the General Manager, relation of the Sales Manager with the General Manager. Some such facts as cannot be recorded in the books are sometimes shown in parentheses or as footnotes. The information as disclosed in footnotes or in parentheses makes the financial statements more useful.

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(2) Accounting Conventions

The financial statements are affected to a very great extent by accounting principles, concepts and conventions. "The term 'convention' is used to signify customs or traditions which act as a guide to the preparation of accounting statements."^1

The accounting conventions are: (i) The Convention of Disclosure: The accounting convention of disclosure implies that accounts must be honestly prepared and all material information must be disclosed therein as per the Law which prescribes the contents of balance sheet and profit and loss account. These are designed to make compulsory disclosure of all material facts. The term 'disclosure' does not imply that all information that anyone could conceivably desire is to be included in accounting statements. The term only implies that there should be a sufficient disclosure of information, which is of material interest to proprietors, present and potential creditors and investors. The practice of appending notes relative to various facts of items, which do not find place in accounting statements is in pursuance to the convention of full disclosure of material facts. The examples of such types of items are (a) contingent liabilities appearing as a footnote and (b) the market value of investment appearing as a footnote.

(ii) The Convention of Consistency: In accounting various procedures and methods prevail for recording the same transaction or event. For instance, fixed assets can be depreciated by straight-line method, written down value method or any other method. Each method has its own merits and demerits. The consistency convention requires that once a company has decided on one of these methods, it will treat the same event in all subsequent transactions in the same fashion. For example, if a company has adopted the written down value method of

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depreciation, the same method must be used in all subsequent years and the method of depreciation should not be changed from year to year. If frequent changes are made in the manner of handling, a given class of transactions in the accounting records, a comparison of accounting figures of one period with that of the another period becomes difficult.

(iii) The Convention of Conservatism: This convention makes the accountant feel the need for making a provision for expected loss but at the same time, to ignore expected profits. Anticipating no profits and providing for all possible losses, making provision for doubtful debts, valuation of stock at cost or market price, whichever is less, showing joint life policy at surrender value, providing for discount on creditors, are some of the examples of this convention.

(iv) The Convention of Materiality: The accountant does not attempt to record a number of events which are so insignificant that the work of recording them is not justified by the usefulness of the results. For example, a brand new pencil is an asset of the company. Every time the pencil is used, a part of this asset is used up and owner's equity decreases correspondingly. Theoretically, it would be possible to ascertain the value of the used pencil owned by the company and to correct the records. But the cost of computation and recording would be gigantic as compared to the utility of this computation. Thus, a simple though less exact course of action is to consider that the asset (pencil) is used up at the time of acquisition and the entire amount charged as an expense because this is not a material event. But this treatment is not extended to plant and machinery, the cost of which is spread over several years.

(3) Personal Judgments

Although concepts and conventions provide a good guideline to the accountant for arriving at a decision as to how much should be
charged to the Profit and Loss Account of the current year and how much should be carried forward to the next year as unexpired costs, the application of these concepts and conventions depends on the personal judgment of the accountant.

The existence of the consistency principle saves as a check on the power of the accountant to use his personal judgment, since an accountant is guided by the past practices; as such the areas of the application of his personal judgment are reduced.

George O. May recognizes these intangible features of the financial statements when he states that, "The accounts of a modern business are not entirely statement of facts, but are to a large extent the expressions of the opinion based partly on accounting conventions, partly on assumptions, explicit or implicit and partly on personal judgments."  

UTILITY OF FINANCIAL STATEMENTS:  

Of all the documents about a company, which are available to persons other than its directors and senior managers, the annual financial statements are by far the most detailed, the most rigorously drawn up the most carefully and solemnly attested, the most produced, the most widely circulated, and the most highly publicized. They are also the ones in which most faith is ordinarily reposed by the public, and are the ones most likely to be accepted by the unsophisticated as an embodying unimpeachable truth. In a normal situation, they are taken as the best evidence for forecasting the level of dividends in the near future, while empirical research suggests them as the main determinants of the market price of the shares and the only basis for

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computing the price/earnings ratio, which is the principal indicator of
the rationality of that price; and the only real clue to the solvency,
stability, liquidity, and profitability of the business.

As the reader will have gathered already, such implicit faith is
scarcely justified, and is not shared by knowledgeable perusers of the
statements. The principles upon which they are compiled are to a large
extent arbitrary. Even within the context of conventional practice, the
choice of bases for dealing with many items - stocks, depreciation,
intangibles, extraordinary items, prior year adjustments, etc. is a wide
one, and combinations of these allow reported profits, and the book
amount of equity, to take almost any desired values within a
considerable range; indeed, it has been estimated (by R. J. Chambers)
that, in a complex set of group accounts, over thirty million different
combinations of figures may be permissible -and that there is no one
set of values which could not be reported by some competent auditor
as giving a true and fair view, without qualification. The accountancy
profession, particularly in Britain, is only just beginning to put its house
in order and restrict the inordinate diversity of practices. Until the
publication of Statement of Standard Accounting Practice No. 2, in
1971, there was no requirement even to disclose what bases had been
used in most areas of the accounts.

These objections apply within the context of historical-cost
accounting, and are compounded, in the vast majority of listed
companies' statements, by consolidation of parent and subsidiary
companies' accounts, and of the earnings of associates. The problems
become worse when it is sought to assess the results of the same
company or group over a number of years, and become virtually
insoluble when inter-firm comparison is attempted, even within the
same industry, especially in view of the conglomerate character of so
many modern groups. A further complication are caused by the
incidence of chronic price inflation, making conventional accounts of
limited utility even for a single year, and is aggravated, by piecemeal attempts to correct it, as by occasional revaluation of fixed assets. Finally, published accounts relate to past results and are of limited value as indicators of future trends, upon which the market value of securities should most rationally be based.

Much of this chaos springs from failure on the part of the management, law, and the accountancy profession to define even the purposes for which final accounts are prepared, uses to which consumers may be expected to put them to, or the different ways in which the accounts can motivate them. Legal regulation has been the main factor in promoting disclosure, and it has been financial institutions and lawyers, rather than accountants, who have demanded more and more, detail, without any overall assessment of its value and purpose. The shortcomings of accountants have laid in comparision to the acceptance of the situation, and in a fatalistic belief that financial statements are bound to remain a mystery to the ordinary investor, and that this is all right as long as there are experts available to analyze them. Detailed disclosure is supposed to serve the expert rather than the layman, but little attention has been paid to the quality, as distinct from the quantity, of information compulsorily made accessible. Without any real idea of the objective of publishing financial statements, it is hard to see how any genuine improvement can come about.
APPENDIX-B
APPENDIX – B

THE BUSINESSES OF CHAROAN POKPHAND GROUP (CPA):

The Agro-Industry Business Group:

The Agro-Industry Business Group encompasses all phases of food production, processing, and distribution.

In anticipation of a rapid expansion in the market for animal protein in 1953, CP opened modern poultry feed processing mill.

CP now operates approximately 50 feed mills in 9 counties with an annual capacity of over 5.6 million tons. As a result, the Group is today the largest animal feed supplier in Asia and the fourth largest in the world.

Less than a decade after entering the feed business, CP began slaughtering poultry for marketing to wholesalers and consumers. Through a grandparent stock chicken breeding joint venture set up in 1970, CP, with Arbor Acres of the United States, began raising and supplying chicken breeding stock, layers, and broilers to farmers on an industrial scale while mature birds were stippled to its own slaughtering operations. Establishment of the Thailand’s first modern slaughtering facility in 1973 enabled CP to accommodate market expansion as well as provide a steady supply of poultry and swine. CP commenced its contract farming operations by providing essential supplies, technology, and management techniques, guaranteed purchase agreements, as well as financing to farmers. In recent years, CP has also raised quail and pigeons mainly for export.

By the end of 1990, CP was operating more than 100 poultry breeding farms worldwide. Collectively, these facilities are active in
raising and selling approximately 400 million day-old-chick broilers annually.

Through the introduction of modern technology, CP has increased profits for farmers, improved the quality of chicken meat and helped standardize size and weight. This ensures more efficient processing and enhanced marketability. From initial yields of 2,500 tons of poultry in 1973, CP now processes around 300,000 tons a year through 5 plants, selling to domestic markets and exporting to counties in Africa, Asia, Europe, the Middle East, and North America.

CP has duplicated the same model, first with ducks and later with swine. CP annually raises and sells 200,000 heads of swine, mainly breeders, to swine raisers.

After years of wholesaling its processed chickens and meat, CP has since integrated upwards to the consumer sales level. CP’s first step in this process was to sell chicken from stalls in fresh markets, now numbering more than 300 throughout Thailand. CP later began vending ready-to-eat chicken from stands in high pedestrian traffic areas near fresh markets and super markets. Five Star Grilled Chicken, which was the first venture in this project, had nearly 600 stands nationwide by the end of 1991. The next venture Hong Tay sold ready-to-eat duck products.

Thereafter, CP moved into fast-food outlets Chester’s Grilled Chicken currently has 6 outlets in Thailand and has been operating in Malaysia and Taiwan since the end of 1990.

CP has established feedmills and poultry production facilities in 9 foreign countries, namely, China, Indonesia, Malaysia, Portugal, Singapore, Taiwan, Turkey, Netherlands and the US, where it owns the Avian chicken breeding farm in the state of Texas.
FULLY INTEGRATED AGRO - INDUSTRY

Inputs
- Crop Growing
- Feed Raw Material
- Feed Production

- Breeding Stock
- Livestock
- Culling Stock
- Basic Meat Processing
- Food Processing
- Valued Added Processing

Domestic Market

Marketing

Export Market

- Stage at which CPF is involved

Looking ahead, CP will continue to seek further opportunities in agro-industry, applying the fruits of its applied research and development work to create more efficient processing of high-quality products at affordable prices.

**Aquaculture Business Group:**

In line with the Group's pattern of diversification, CP's involvement in the aquaculture business, particularly tiger prawns and shrimp rising, began in 1988.

As the export market for aquacultural products is growing at a steadily increasing rate, Thailand, with its favourable climate and thousands of miles of coastline, is becoming one of the world's major production bases.

The Group's success in the aqua-industry is remarkable. Using scientifically developed methods, CP has established its own training, breeding, rearing and processing operations. At the same time, the Group contracts with independent farmers who operate their own ponds. This is done by providing them with feed, larvae, technology, training and a stable market for their products.

With a capacity of over 200,000 tons of feed per year, which makes it the largest prawn feedmill in Thailand, CP produces seven different kinds of feed for prawns and shrimps. The Group's capacity surpassed 250,000 tons of feed in 1991 with the addition of new facilities in China and Indonesia.

As with CP's livestock operations, the Group operates a prawn culture-training center for farmers to help ensure long-lasting efficiency and consistent premium quality standards. The center also conducts numerous research projects designed to determine how varying non-material factors and alternative ingredients affect product yields.
CP has committed substantial resources to its aquaculture business and regards it as an area of activity that will experience constant growth for decades to come.

CP has also established a Prawn Culture Research and Development Laboratory which has 4 sub laboratories to oversee four separate areas of R&D activities: a prawn nutrition research laboratory, an aquatic environmental research laboratory, a prawn health center and a plankton research laboratory.

**Seeds, Fertilizers and Plant Protection Business Group:**

The seeds and agro-chemical business is CP's oldest operation. Its history dates back to the Group's earliest days of 1921 when the founding brothers began importing vegetable seeds produced by their family in China. Over nearly seven decades, Chia Tai Co., Ltd. has established the most extensive distribution system and technical support network for agro-processed goods in Thailand.

Keenly aware that farmers stake everything on a good crop, Chia Tai became Thailand's largest supplier of vegetable and fruit seeds, while building a reputation based on reliability and value. It currently holds the leading market share of the vegetable seed distribution business in Thailand.

To maintain the highest quality standards, Chia Tai obtains seeds from the finest international sources and operates experimental farms and plots to test their adaptability, quality, and yield, as well as to develop its own hybrids more suitable for local conditions. At present, Chia Tai’s inventory of seeds includes more than 160 varieties of vegetables. Each year, more than 100 new varieties undergo testing prior to the final distribution stage.
In the fertilizer business, Chia Tai markets a full range of ammonium sulphate, urea, and compound (NPK) products using prime quality materials sourced from leading global suppliers.

For plant protection, Chia Tai’s line includes environmentally safe fungicides, herbicides, insecticides, and other essential chemicals appropriate for all major crops.

As noted, providing technical support is a tradition long established in the company’s history. Chia Tai’s professionally qualified technical staff serve as consultants and trainers to farmers and dealers with an emphasis on proper handling and optimum use of all products.

Chia Tai holds a monthly meeting of a joint extension committee, which comprises of the supervisors of each division and which determines the policy and direction for an active outreach program. In this program, joint teams of seed, fertilizer, and plant protection technicians conduct year-round fieldwork to facilitate the transfer of technology and technical know-how by advising groups of farmers and setting up demonstration plots. The company also provides explanatory literature and handbooks for further reference.

To stay in touch with international developments and innovations, Chia Tai continues to introduce new vegetable seeds for local farmers. This process helps create greater opportunities for them, as well as serving the ever growing needs of our demanding customers.

**International Trading Business Group:**

From the very beginning, CP has traded internationally. Initially, during the 1920s, the Chia brothers exported their seed from Bangkok to various countries in Southeast Asia.

As the Group has grown, trading operations has been in unison with the launch of new products and new companies. This expansion is
manifested as an engine of further growth through the opening of new markets for the Group's products in various parts of the world and by the simultaneous sourcing and introduction of new goods and technology to the Group.

The International Trading Business Group has become a strong and powerful trading network, which collectively fosters both demand and supply for the vast variety of CP's products. With trading offices based in 8 countries, namely Malaysia, Singapore, Taiwan, Japan, South Korea, Hong Kong, Belgium and the US, CP has concluded international trading transactions with sixty countries covering five continents.

The major roles of the International Trading Business Group are raw material sourcing as well as the marketing of a vast array of goods. Also included are support activities including crop R&D to facilitate product sourcing and transportation services for marketing activities.

This Business Group has gained experience in trading of the following product groups:

- poultry, meat, seafood either fresh, fresh-frozen, canned, semi-cooked, or cooked;
- fruits and vegetables either fresh, fresh-frozen, or canned;
- A wide variety of grains;
- feeds,
- pet food;
- general consumer and industrial goods.

**Marketing and Distribution Business Group:**

With a growing mix of consumer goods within its own CP line and steadily larger production capacities, the Marketing and Distribution Business Group was established to undertake the
development of marketing systems and distribution service networks for both domestic and international markets.

In Thailand and at the wholesale level, the Group has entered into a joint venture with the Netherlands-based SHV Holdings to set up Makro, the first cash-and-carry wholesale supermarket in Asia. At the retail level, the Group has become a franchisee for the 7-Eleven convenience store, while another effort has been made with technical collaboration with the Seiyu Seisan Group of Japan, to open the Group's first supermarket, Sunny's Supermarket, on the outskirts of Bangkok.

These partnerships have engendered for the Group considerable merchandising expertise while creating added momentum to increase the number of Thai domestic outlets for CP and other company products. They have also provided the opportunity for CP to become a competitive supplier to outlets within their partners’ global networks.

An additional plan envisioned by this Business Group is to establish a chain of distribution centers and outlets in Thailand, equipped with advanced technology and employing sophisticated modern marketing concepts and practices.

Real Estate and Land Development Business Group:

In 1987, economic trends in Southeast Asia shifted and the pace of investment by local and foreign companies accelerated in Thailand, as did tourism. It was clear that a shortage in the supply of prime office space, hotel rooms, and residential condominiums in Bangkok, as well as industrial estates and recreational complexes upcountry would soon prevail.

Already well stocked with substantial real estate assets, adequate capital reserves and specialized staff handling acquisition
and development, CP's Real Estate and Land Development Business Group entered the commercial real estate development business with the establishment of CP Land Co., Ltd. as a holding company. Additionally, CP joined with established experts in the real estate field to form two other companies - DS Land Corp., Ltd., and Siam Fortune.

CP Land owns and operates the ultra-modern, 30-storey office building called CP Tower on Silom road, the principal thoroughfare in what has become one of the highest concentrations of high-rise office buildings in Bangkok. Officially opened in May 1990, CP Tower serves as the headquarters for the CP Group and many companies within the Group.

DS Land Corp., Ltd. is a joint venture between CP and two other companies - one of which specializes in turn-key real estate project development and the other in property management. DS commenced operations in 1988 and by the end of 1993 estimated aggregate investments of US$ 240 million in six major projects: four in Bangkok and two upcountry. The projects range from residential condominiums to integrated complexes with hotels, office space, and shopping arcades, as well as a sports resort.

Siam Fortune, a publicly listed joint venture with Univest Company, is presently constructing a large, multi-purpose commercial complex called Fortune Town on an 18-rai plot of land at a prime location in Bangkok. Representing a total investment of US$240 million, this complex includes a deluxe hotel, a large department store, an office building, and shopping arcades. Several projects including residential condominiums, large scale housing estates, industrial estates, and golf courses etc. are also now under construction both in Bangkok and upcountry.

As Thailand's economy continues to prosper, the importance of land and its suitable development will increase. CP is determined to
pursue opportunities, which add the greatest possible value to this limited natural resource.

The Petrochemical Business Group:

The Petrochemical Business Group was established in 1988 to invest mainly in large-scale, sophisticated upstream and downstream petrochemical projects.

At the upstream level, the Business Group has been active with its substantial investment in the production of PVC resin. This raw material is a key ingredient client in a vast variety of plastic products used daily by people all over the world.

In Thailand, the Group has entered into a joint venture with the technologically advanced, international conglomerate, Solvay cie, of Belgium. The joint venture company, Vinythai, initially produced 140,000 tons of PVC, and 135,000 tons of VCM (vinyl chloride monomer, the primary raw material for PVC) by using ethylene derived from natural gas produced in the Gulf of Thailand. The project, which required an investment outlay of nearly US$ 350 million, became operational in 1992.

In China, Ningbo Petrochemical Co., Ltd. produce around 240,000 tons of VCM and PVC resin per annum. The Group also plans a similar investment in Indonesia.

At the downstream level, the Group has invested in the production of various finished PVC based plastic products such as PVC sheeting, film, pipe, leather and sponge leather, sunblinds, rain coats, inflatable toys, luggage, bags, etc. The Group will also produce PVC sheeting and leather products in Indonesia.

The Group's ultimate aim is to develop this line of business into a fully integrated network.
Automotive and Industrial Products Business Group:

As the automotive industry is regarded as one of the world's most vital industries, this Business Group has planned a series of large-scale investments in this field, particularly in motorcycles and heavy-duty trucks. At present, the Group manages a joint venture motorcycle assembly plant in Shanghai, China. This facility supplies 125 to 250 cc. motorcycles to both the local Chinese and foreign markets.

A motorcycle assembly joint venture producing 50, 70 and 100 cc. motorcycles is also in operation at Luoyang City, Henan Province.

Investment in peripheral industries related to motorcycle assembly has also been made, including engine parts, shock absorbers and other forged products. These ventures utilize technical know-how from Honda of Japan.

Plans are currently being formulated for the establishment of a truck assembly plant in Thailand, through a joint venture with Chinese Authorities to supply high quality trucks for the transportation of agricultural produce as well as for industrial purposes.

The Group also produces air-conditioning compressors in Shanghai, with technology and related know-how supplied by Sanden of Japan. A lysine plant is operated as a joint venture at Quanzhou, Fujian Province. Producing 300 tons of lysine per year, it is the largest plant of its kind in China.

Concerning other industries, the Group manages a brewery, which produces premium quality beer. With Heineken of the Netherlands and Chinese Authorities as its partners, this venture currently holds a 30% share of this growing market.
Telecommunications:

Due to the confidence in technology and management, together with the investing potential, CP Group entered the telecommunications arena in 1991. CP was awarded the concession to build 2 million telephone lines, and later on an additional 0.6 million lines in the Bangkok Metropolitan area under the company Telecom Asia Corporation (Public) Co., Ltd. (TA). The company has since invited NYNEX Network Systems of USA to be the strategic partner to provide technology support. Siemens AG of Germany, AT&T of USA, NEC and Fujitsu of Japan were chosen to be the suppliers of telecommunication equipments.

Moreover, TA has invested in a subsidiary company, Telecom Holding Co. Ltd. TA Group runs the following businesses:

- Domestic Telecommunications:

  Universal Cable TV Network Public CO., Ltd. (UTV) UTV is the first true cable TV company of Thailand, utilizing one of the world's most modern means of transmitting signal with the help of the fiber optic cable. While the information and entertainment it now provides are accessible throughout Greater Bangkok, UTV plans to extend its service to cover all parts of Thailand in the near future. Data, video and sound signals will be sent with clarity and sharpness, undisturbed by local environmental and weather conditions, along with unmatched efficiency.

  Interactive Media Service Co., Ltd. This company was established in order to invest in voice data project, to provide information services and develop entertainment programs through audiotex systems. Service users are able to call in 24 hours a day and can enter any one of the variety of information programs, such as those pertaining to entertainment and general knowledge, through an automatic voice recording system acting as the user's guide. Other
related services include social voice mail, allowing users to leave greetings for new friends, party lines, fax-on-demand service, and many other equally interesting options for the near future.

_LINES TECHNOLOGY (THAILAND) CO., LTD._ This company was officially established as a videotex service provider under its "Comline" trade name. Comline is an electronic communications service network using telephone cable connections and computers to provide subscribers with online and real-time information that is easily accessible at any time of the day.

- The Overseas Telecommunications Group:

_U.N. (THAILAND) CO., LTD._ This company was formed to participate in the creation of an international information superhighway called FLAG, or Fiber Optic Link Around the Globe. At 30,000 kilometers, this undersea fiber optic cable is the longest in the world, and links the UK via the Mediterranean Sea and the Indian Ocean to Japan. The trunk line is connected to various countries along its path at 13 points, i.e., those being the UK, Spain, Italy, Egypt, UAE, India, Diego, Garcia, Island in the Indian Ocean, Thailand, Malaysia, China at Hong Kong and Shanghai, South Korea and Japan. The project is estimated to cost more than US 1 billion.

_CHIA TAI INTERNATIONAL TELECOMMUNICATIONS CO., LTD._ This company was formed to act as a shareholder in APT Satellite Co., Ltd., which operates satellites and leases channels to broadcasters. Apstar I is now in orbit after being launched in 1994. Apstar I A and Apstar I I R are scheduled for launching in 1996 and 1997, respectively.

Apstar I A has 24 transponders which cover Eastern Asia from the north to the south. This satellite's footprint thus extends to Japan, Mongolia, ports of Russia, Singapore, Indonesia, China, Hong Kong, Macau, Taiwan, Cambodia, Thailand, Vietnam, Laos, northern Korea and southern Philippines.
Apster II R offers 44 transponders consisting of 28 C-band transponders and 16 Ku-band transponders. The C-band frequency's footprint extends across Asia, northern Europe, northern Africa and Australia.

These two satellites have between them 68 transponders, while their footprints cover two-thirds of the world's land surface.

- The Telephone Installation Support Group:

  Telecom Equipment Manufacturing Co., Ltd. (TEMCO) This company was established to produce and assemble telephone exchange equipment in Thailand as a way of ensuring TA's performance. As per the contract it has to install with the TOT to install 2.6 million telephone lines in Greater Bangkok. The contract states that 50% of such equipment must be made in Thailand. TEMCO is a joint venture of TA, Siemens AG and B. Grimm Holding Co., Ltd.

Petroleum and Power:

The petroleum sector presents a vast new challenging field for CP Group, which has two petroleum companies:

1) PetroAsia International Corporation Co., Ltd. Established in 1993, with a registered capital of 100 million baht, the company is engaged in retail service stations, gas and oil terminals, storage, transportation, wholesale and retail trading, export and import of all types of petroleum products. This business has also extended to other petroleum and power projects which are as follows:

   1. Joint venture with the National Oil Company of China (SINOPEC) and the Petroleum Authority of Thailand (PTT) in Thailand, China, Vietnam, and other Asia-Pacific countries, to conduct petroleum business in the region.

   2. Joint venture with Shantou SEZ Wuzhou Labour Service Company of the Shantou Wuzhou Group and the Petroleum
Authority of Thailand (PTT) to invest in petroleum, petrochemical and liquefied petroleum gas storage tanks in Guangdong province, China.


4. Submitted bids for the rights to build, own, and operate large-scale Independent Power Petroleum (IPP) plants in Thailand and abroad.

2) PetroAsia Thailand Co., Ltd. Established on 15 July, 1993, with a registered capital of 500 million baht, PetroAsia is engaged in retail service stations in Thailand. These stations provide a full range of services to meet the needs of all road users, including engine checks, lubrication, wheel balancing and Car wash. In addition, PetroAsia also operates Mini Gas Stations to help bring economic and technological development in remote areas.

Moreover, PetroAsia is the first company in Thailand to set up fast food business facilities located within the service station compound. Hence, all PA stations feature 7-Eleven, Chester’s Grill and Inter Suki outlets.

Social Contribution and Development:

Charoan Pokphand Group seeks to fulfill its social commitments with many projects, some of them are mentioned below:

- Rural Lives Development Foundation

On the occasion of HM King Adulyadej’s 60th birthday, CP Group donated 20 million Baht, while the staff pooled together 300,000 Baht, to set up the Rural Lives Development Foundation on November 2, 1989. The Foundation’s goal, (following in the steps of HM the King) is to encourage career development, arts and good citizenship.
The projects are divided into three categories:

1. Youth Development:

1.1 Training for young farmers - agricultural career, training camp for young farmers, and training for professional jobs.

1.2 Career development - to help youths to increase their income and provide support to their families. This Project has enabled more than 100 young people to get jobs.

1.3 Social development

*School lunch project* - a joint project, The Education and Development Center of Huai Sai and the Samaggi Insurance (Public) Co., Ltd., encourage schools to raise chickens.

*Self-development project for young women in the northern part of Thailand* - provides scholarships and career guidance to women.

2. Community Development

2.1 Development of support for agricultural career, handicrafts as well as housing for more than 200 families in Kanchanaburi province.

2.2 Demonstration project for agricultural activities held at the center, where youths study and undergo training.

2.3 Career training in agriculture in Cha-am

3. Restoration and Protection of Natural Resources and the Environment

3.1 Study, analysis and test on mixed farming to control insects and pests; and study the quality of natural insecticides for corn.
3.2 Various projects to support farmers, such as, donating trees, child-care by grandmothers, as well as setting up a fund for organic farming.

3.3 Organize training for spreading ideas and information on organic farming Through the use of the media; i.e., radio and newspapers, as well as the publication of newsletters and manuals.

- Career Development for farmers

  1. Career building to increase income - Projects have been undertaken in two locations, namely Buriram and Phichitr for a number of activities:

     - Develop a system of integrated rice farming (Jasmine Rice 105).

     - CP Group invested Baht 150 million, with the farmers as shareholders & started a cooperative rice mill.

     - raising chickens

     - raising fish and shrimp

     - cultivating corn for animal feed, producing vegetable seeds

     - handicrafts

  2. Chumporn Project - The destruction caused by Typhoon Gay in 1989 affected the lives of 32,301 families in this province, devastating of 900,000 rai of farm land. CP Group worked with the government sector, including the Ministry of Agricultural Promotion in projects to aid the typhoon victims.

- Reforestation Projects

  1. The reforestation project, which was a tribute to the 50th year of HM, The King's Accession to the Throne, covered 100,000 rai, since 1994.
2. Reforestation of 10,000 rai of land with the Chai Pattana Mae Fa Luang Foundation in four provinces, namely Nong Khai, Kampaengphet, Nakorn Panom and Chiang Rai.

- Education

1. Chearavanont Uthit Schools - Built by CP Group in six locations: two in Nakorn Ratchasima, two in Loei and one each in Sakon Nakhon and Chiang Mai.

2. Scholarships - To provide educational opportunities for Thai youth, these are divided into university level (120 scholarships per year) and secondary level (for students to continue studies after the compulsory level of Grade 6: one scholarship over a ten-year period extended to each of the country’s 72 provinces).

3. Agriculture Career Development Project - In cooperation with the Government and educational institutions, this project was started to improve the quality of teachers and professors in the pig and poultry raising and vegetable cultivation curriculum.

4. Apprentice School - A joint undertaking by CHAROAN Pokphand Petrochemical Co., Ltd. and King Mongkut’s Institute of Technology, North Bangkok, to develop technical skills of young men in the rural areas. The program is based on the Dual Training System.

5. International Olympiads - Since 1994, CP Group and TelecomAsia Corporation (Public) Co., Ltd. have sponsored The Institute for the Promotion of Teaching Science and Technology’s project to select Thai youths to compete in the annual International Mathematical and Science Olympiad, which are held in different countries each year: Members of
the Thai press are also invited. Each year, CP Group also provides scholarships for university degrees to ten of the chosen young Thai representatives. Total expenses per year amount to around Baht 4.5 million.

- Social Activities and Charity Work for the Community:

1. Blood Donation Campaign - CP Group realizes the importance of giving blood and began this campaign in August 1991, as a tribute to HM, the Queen on the occasion of her 60th birthday. The CP Group has continued this project and increased the target to its present level of 3 million cc's. For the year 1995-1996, on the occasion of HM the King's Golden Jubilee, the CP Group has collected 3,994,200 cc's of blood donation from the staff and public.

2. Buddha Images - Under Royal patronage, on the occasion of HM, the King's Golden Jubilee, the CP Group created this special Chitrlada Buddha image. The Royal Project, Rural Lives Development Foundation and CP Group are advisors of this project, from which the initial proceeds amount of Baht 2.77 million, were presented to HM, the King on 23 March, 1996.
APPENDIX-C
APPENDIX – C

LIQUIDITY RATIOS

It is extremely essential for a firm to be able to meet its obligations as they become due. Liquidity ratios measure the ability of the firm to meet its current obligations. In fact, analysis of liquidity needs the preparation of cash budgets and cash and fund flow statements; but liquidity ratios, by establishing a relationship between cash and other current assets to current obligations, provide a quick measure of liquidity. A firm should ensure that it does not suffer from lack of liquidity, and also that it does not have excess liquidity. The failure of a company to meet its obligations due to lack of sufficient liquidity, results in poor creditworthiness, loss of creditors’ confidence, or even in legal tangles resulting in the closure of the company. A very high degree of liquidity is also bad; idle assets earn nothing. The firm’s funds will be unnecessarily tied up in current assets. Therefore, it is necessary to strike a proper balance between high liquidity and lack of liquidity.

The most common ratios which indicate the extent of liquidity or lack of it are: (i) current ratio and (ii) quick ratio. Other ratios include interval measure ratio.

Current Ratio

The current ratio is calculated by dividing current assets by current liabilities:\(^1\)

\[
\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}
\]

Current assets include cash and those assets which can be converted into cash within a year, such as marketable securities, debtors and inventories. Prepaid expenses are also included in current assets as they represent the payments that will not be made by the firm in the future. All obligations maturing within a year are included in current liabilities. Current liabilities include creditors, bills payable, accrued expenses, short-term bank loan, income-tax liability and long-term debt maturing in the current year.

**Quick Ratio (Acid-test Ratio)**

Quick ratio establishes a relationship between *quick* or *liquid* assets and current liabilities. An asset is liquid if it can be converted into cash immediately or reasonably soon without any loss of value. Cash is the most liquid asset. Other assets which are considered to be relatively liquid and included in quick assets are debtors, bills receivables and marketable securities (temporary quoted investments). Inventories are considered to be less liquid as they require some time for realizing into cash; their value also has a tendency to fluctuate. The quick ratio is calculated by dividing quick assets by current liabilities.¹

\[
\text{Quick ratio} = \frac{\text{Current assets} - \text{Inventories}}{\text{Current liabilities}}
\]

Generally, a quick ratio of 1 to 1 is considered to represent a satisfactory current financial condition. Although quick ratio is a more penetrating test of liquidity than the current ratio, yet it should be used cautiously. A quick ratio of 1 to 1 or more does not necessarily imply sound liquidity position. It should be remembered that all debtors may not be liquid, and cash may be immediately needed to pay operating expenses. It should also be noted that inventories are not absolutely

non-liquid. To a measurable extent, inventories are available to meet current obligations. Thus, a company with a high value of quick ratio can suffer from shortage of funds if it has slow-paying, doubtful and long duration outstanding debtors. On the other hand, a company with a low value of quick ratio may really be prospering and paying its current obligation in time if it has been turning over its inventories efficiently. Nevertheless, the quick ratio remains an important index of the firm's liquidity.¹

**Interval Measure Ratio**

Yet another ratio which assesses a firm's ability to meet its regular cash expenses is the *Interval measure ratio*. Interval measure relates liquid assets to average daily operating cash outflows. The daily operating expenses will be equal to the cost of goods sold plus selling, administrative and general expenses *less* depreciation (and other non-cash expenditure) divided by the number of days in a year (say 360).²

\[
\text{Interval measure} = \frac{\text{Current assets} - \text{Inventory (quick assets)}}{\text{Average daily operating expenses}}
\]

Interval measure may be refined further. Instead of calculating only the daily operating expenditures, one may also include expenditures required for paying interest, acquiring assets and repaying debt.

**LEVERAGE RATIOS**

The short-term creditors, like bankers and suppliers of raw material, are more concerned with the firm's current debt-paying ability.

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On the other hand, long-term creditors, like debenture holders, financial institutions etc. are more concerned with the firm's long-term financial strength. In fact, a firm should have a strong short-as well as long-term financial position. To judge the long-term financial position of the firm, *financial leverage*, or *capital structure ratios* are calculated. These ratios indicate mix of funds provided by owners and lenders. As a general rule, there should be an appropriate mix of debt and owners' equity in financing the firm's assets.

The manner in which assets are financed has a number of implications. *First*, between debt and equity, debt is more risky from the firm's point of view. The firm has a legal obligation to pay interest to debt-holders, irrespective of the profits made or losses incurred by the firm. If the firm fails to pay to debt-holders in time, they can take legal action against it to get payments, and in extreme cases, can force the firm into liquidation. *Second*, use of debt is advantageous for shareholders in two ways: (a) they can retain control of the firm with a limited stake and (b) their earning will be magnified when the firm earns a rate of return on the total capital employed which is higher than the interest rate on the borrowed funds. The process of magnifying the shareholders' return through the use of debt is called "financial leverage" or "financial gearing" or "trading on equity." However, leverage can work in opposite direction as well. If the cost of debt is higher than the firm's overall rate of return, the earnings of shareholders will be reduced. In addition, there is threat of insolvency. If the firm is actually liquidated for non-payment of debt-holders' dues, the worst sufferers will be shareholders-the residual owners. Thus, use of debt magnifies the shareholders' earnings as well as increases their risk. *Third*, a highly debt-burdened firm will find difficulty in raising funds from creditors and owners in future. The owners' equity is treated as a margin of safety by creditors; if the equity base is thin, the creditors risk will be high. Thus, leverage ratios are calculated to measure the
financial risk and the firm's ability of using debt to shareholders' advantage.

Leverage ratios may be calculated from the balance sheet items to determine the proportion of debt in total financing. Many variations of these ratios exist; but all these ratios indicate the same thing—the extent to which the firm has relied on debt in financing assets. Leverage ratios are also computed from the profit and loss items by determining the extent to which operating profits are sufficient to cover the fixed charges.

**Debt Ratio**

Several debt ratios may be used to analyze the long-term solvency of a firm. The firm may be interested in knowing the proportion of the interest-bearing debt (also called funded debt) in the capital structure. It may, therefore, compute debt ratio by dividing total debt (TD) by capital employed (CE) or net assets (NA). 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. Capital employed will include total debt and net worth (NW).\(^1\)

\[
\text{Debt ratio} = \frac{\text{Total debt (TD)}}{\text{Net assets (Capital employed)}}
\]

**Debt-Equity Ratios**

The relationship between borrowed funds and owner's capital is a popular measure which reveals the long-term financial solvency of a

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firm. This relationship is shown by the debt-equity ratios. This ratio reflects the relative claims of creditors and shareholders against the assets of the firm. Alternatively, this ratio indicates the relative proportions of debt and equity in financing the assets of a firm. The relationship between outsiders' claims and owner's capital can be shown in different ways and, accordingly, there are many variants of the Debt-Equity (D/E) ratio. This approach expresses the D/E ratio in terms of relative proportion of total debt and shareholders' equity. Thus,¹

$$\text{D/E ratio} = \frac{\text{Total debt}}{\text{Shareholders' equity}}$$

The D/E ratio is, thus, the ratio of total outside liabilities to owners' total funds. In other words, it is the ratio of the amount invested by outsiders to the amount invested by the owners of business.

The difference between this and the first approach is essentially in respect of the treatment of current liabilities. While the former excludes them, the latter includes them in the numerator (debt). Should current liabilities be included in the amount of debt to calculate the D/E ratio? While there is no doubt that current liabilities are short-term and the ability of a firm to meet such obligations is reflected through the liquidity ratios, their amount fluctuates widely during a year and interest payments on them are not large. They should form part of the total outside liabilities to determine the ability of a firm to meet its long-term obligations for a number of reasons. For one thing, individual items of current liabilities are certainly short-term and may fluctuate widely, but, as a whole, a fixed amount of them is always in use so that they are available more or less on a long-term footing. Moreover, some current

liabilities like bank credit, which are ostensibly short-term, are renewed year after year and remain by and large permanently in the business. Also, current liabilities have, like the long-term creditors, a prior right on the assets of the business. Finally, the short-term creditors exercise much, if not more, pressure on management. The omission of current liabilities in calculating the D/E ratio would lead to misleading results.

How should preference share capital be treated? Should it be included in the debt or equity? The exact treatment will depend upon the purpose for which the D/E ratio is being computed. If the object is to examine the financial solvency of a firm in terms of its ability to avoid financial risk, preference capital should be included in equity capital. If, however, the D/E ratio is calculated to show the effect of the use of fixed-interest/dividend sources of funds on the earnings available to the ordinary shareholders, preference capital should be included in debt.¹

Coverage Ratios

Debt ratios described above are static in nature, and fail to indicate the firm's ability to meet interest (and other fixed-charges) obligations. The interest coverage ratio or is used to test the firm's debt-servicing capacity.² It is also known as "time-interest-earned ratio". This ratio measures the debt servicing capacity of a firm in so far as fixed interest on long-term loan is concerned. It is determined by dividing the operating profits or earnings before interest and taxes (EBIT) by the fixed interest charges on loans. Thus,

\[ \text{Interest coverage} = \frac{\text{EBIT}}{\text{Interest}} \]

It should be noted that this ratio uses the concept of net profits before taxes because interest is tax-deductible so that tax is calculated after paying interest on long-term loan. This ratio, as the name suggests, shows how many times the interest charges are covered by the EBIT out of which they will be paid. In other words, it indicates the extent to which a fall in EBIT is tolerable in the sense that the ability of the firm to service its debt would not be adversely affected. For instance, interest coverage of 10 times would imply that even if the firm's EBIT were to decline to one-tenth of the present level, the net profits available for servicing the interest on loan would still be equivalent to the claims of the creditors. On the other hand, coverage of five times would indicate that a fall in operating earnings to only up to one-fifth level can be tolerated. From the point of view of creditors, the larger the coverage, the greater the ability of the firm to handle-fixed charge liabilities and the more assured the payment of interest to the creditors. However, too high a ratio may imply unused debt capacity. In contrast, a low ratio is a danger signal that the firm is using excessive debt and does not have the ability to offer assured payment of interest to its creditors.¹

ACTIVITY RATIOS

Activity ratios are concerned with measuring the efficiency in asset management. Sometimes, these ratios are also called efficiency ratios or asset utilization ratios. The efficiency with which the assets are used would be reflected in the speed and rapidity with which assets are converted into sales. The greater the rate of turnover or conversion, the more efficient the utilization/management, other things being equal. For this reason, such ratios are also designated as turnover ratios. Turnover is the primary mode for measuring the extent

of efficient employment of assets by relating the assets to sales. An activity ratio may, therefore, be defined as a test of the relationship between sales (more appropriately with cost of sales) and the various assets of a firm.¹

Funds of creditors and owners are invested in various assets to generate sales and profits. The better the management of assets, the larger the amount of sales. Activity ratios are employed to evaluate the efficiency with which the firm manages and utilizes its assets. These ratios are also called turnover ratios because they indicate the speed with which assets are being converted or turned over into sales. Activity ratios, thus, involve a relationship between sales and assets. A proper balance between sales and assets generally reflects that assets are managed well. Several activity ratios can be calculated to judge the effectiveness of asset utilization.²

**Inventory Turnover**

*Inventory turnover ratio* indicates the efficiency of the firm in producing and selling its product. It is calculated by dividing the cost of goods sold by the average inventory.³

\[
\text{Inventory turnover} = \frac{\text{Cost of goods sold}}{\text{Average inventory}}
\]

Cost of goods sold = Opening stock + Manufacturing cost (including purchases) -Closing stock (inventory)

The average inventory figure may be of two types. In the first place, it may be the monthly inventory (stock) average. The monthly

average can be found by adding the opening inventory of each month, in case of the accounting year being a calendar year, January to January and dividing the total by 13.\textsuperscript{1} If the firm's accounting year is other than a calendar year, say a financial year, (April to March), the average level of inventory can be computed by adding the opening inventory of each month from April to April and dividing the total by 13.\textsuperscript{2} This approach has the advantage of being free from bias as it smoothens out the fluctuations in inventory level at different periods. This is particularly true of firms in seasonal industries. However, a serious limitation of this approach is that detailed month wise information may present practical problems of collection for the analyst. Therefore, the average inventory may be obtained by using another basis. According to the latter, the average inventory is the average of the opening inventory and the closing inventory [i.e., \((\text{opening inventory} + \text{closing inventory}) / 2\)].

The inventory turnover shows how rapidly the inventory is turning into receivables through sales. Generally, a high inventory turnover is indicative of good inventory management. A low inventory turnover implies excessive inventory levels than warranted by production and sales activities or a slow-moving or obsolete inventory. A high level of sluggish inventory amounts to unnecessary tie up of funds, reduced profit and increased costs. If the obsolete inventories have to be written off, this will adversely affect the working capital and liquidity position of the firm. However, a relatively high inventory turnover should be carefully analyzed. A high inventory turnover may be the result of a very low level of inventory which results in frequent stock outs. The firm may be living from hand-to-mouth. The turnover will also be high if the firm replenishes its inventory in too many small


\textsuperscript{2} Ibid.
lot sizes. The situations of frequent stock outs and too many small inventory replacements are costly for the firm. Thus, too high and too low inventory turnover ratios should be investigated further. The computation of inventory turnover for individual components of inventory may help to detect the imbalanced investments in the various inventory components.¹

What is the interpretation of the ratio? The inventory/stock turnover ratio measures how quickly inventory is sold. It is a test of efficient inventory management. To judge whether the ratio of a firm is satisfactory or not, it should be compared over a period of time on the basis of trend analysis. It can also be compared with the level of other firms in that line of business as also with industry average as a whole.

In general, a high inventory turnover ratio is better than a low ratio. A high ratio implies good inventory management. Yet a very high ratio calls for a careful analysis. It is indicative of under-investment or in a very low level of inventory. A very low level of inventory has serious implications. It will adversely affect the ability of a firm to meet customer demand as it may not cope with its requirements. That is, there is a danger of the firm being out of stock and incurring high "stock out cost". It is also likely that the firm may be following a policy of replenishing its stock in too many small sizes. Apart from being costly, this policy may retard the production process as sufficient stock of materials may not be available.

Similarly, a very low inventory turnover ratio is dangerous. It signifies excessive inventory or over-investment in inventory. Carrying excessive inventory involves cost in terms of interest on funds locked up, rental of space, possible deterioration and so on. A low ratio may be the result of inferior quality goods, over-valuation of closing

inventory, stock of un-saleable/obsolete goods, deliberate excessive purchases in anticipation of future increase in their prices and so on.¹

**Debtors or Accounts Receivables Turnover Ratios**

A firm sells goods for cash and credit. Credit is used as a marketing tool by a number of companies. When the firm extends credit to its customer, debtors (accounts receivables) are created in the firm's accounts. Debtors are expected to be converted into cash over a short period and, therefore, are included in current assets. The liquidity position of the firm depends on the quality of debtors to a great extent. Finance analysts apply two ratios to judge the quality or liquidity of debtors: a) debtors turnover, b) collection period.

Debtors turnover is found out by dividing credit sales by the average debtor:²

\[
\text{Debtors turnover} = \frac{\text{Credit sales}}{\text{Average debtors}}
\]

If the figure for net credit sales is not available; one may have to take the net sales figure.³

**Collection Period or Average collection period (ACP)**

The Average collection period is measuring the liquidity of a firm's debtors. This ratio is, in fact, inter-related with, and dependent upon the receivables turnover ratio. It is calculated by dividing the days in a year by the debtors turnover. Thus,

Debtors turnover and Average collection period ratio indicate the speed with which debtors/accounts receivable are being collected. The higher the turnover ratio and the shorter the average collection period, the better the trade credit management and better the liquidity of debtors, as short collection period and high turnover ratio imply prompt payment on the part of debtors. On the other hand, low turnover ratio and long collection period reflects that payments by debtors are delayed. In general, therefore, short collection period (high turnover ratio) is preferable.

It is not, however, very prudent for a firm to have either a very short collection period or a very long one. A very long collection period would imply either poor credit selection or an inadequate collection effort. The delay in the collection of receivables would mean that, apart from the interest cost involved in maintaining a higher level of debtors, the liquidity position of the firm would be adversely affected. Moreover, there is the likelihood of a large number of accounts receivable becoming bad debts. Similarly, too short a period of average collection or too high turnover ratio is not necessarily good. While it is true that it avoids the risk of receivables being bad debt as well as the burden of high interest on outstanding debtors, it may have an adverse effect on the volume of sales of the firm. Sales may be confined to only such customers who make prompt payments. The credit and collection policy of the firm may be very restrictive. Without reasonable credit, sales will be severely curtailed. Thus, a firm should have neither a very low nor a very high receivable turnover ratio; it should maintain it at a reasonable level.
The reasonableness of the collection period can be judged in either of the two ways. First, the collection period of a firm can be compared with the industry practices of trade credit. Any notable deviation may result because of (i) a more or less liberal policy of extending trade credit, or (ii) better/poor quality of receivables. A liberal trade credit policy may be aimed at augmenting sales.

The reasonableness of the average collection period may be more convincingly examined in relation to the credit terms and policy of the firm itself. In our example, the average collection period is 45 days or 1.5 months. This should be compared with the credit terms/period normally allowed by the firm. If the normal credit period, let us assume, as extended by the firm is 60 days or 2 months, it means the firm is able to collect its receivables well within the due dates. If, however, the credit period normally allowed is 1 month or 30 days, it means that the debtors are outstanding for a period longer than warranted by the firm's credit policy. This may be a reflection on the efficiency of the credit collection department: it has made either poor credit selection or inadequate collection effort. The management should investigate the reasons for the difficulties in the collection of receivables.¹

**Assets Turnover Ratio**

This ratio is also known as the investment turnover ratio. It is based on the relationship between the cost of good sold² and assets/investments of firm. A reference to this was made while working out the over-all profitability of a firm as reflected in its earning power. Depending upon the different concepts of assets employed, there are many variants of this ratio. Thus,


² If the information regarding the cost of goods sold is not available, the figure of sales can be used.
(i) Total assets turnover = \( \frac{\text{Cost of goods sold}}{\text{Average total assets}} \)

(ii) Fixed assets turnover = \( \frac{\text{Cost of goods sold}}{\text{Average fixed assets}} \)

(iii) Net assets turnover = \( \frac{\text{Cost of goods sold}}{\text{Average net assets}} \)

(iv) Current assets turnover = \( \frac{\text{Cost of goods sold}}{\text{Average current assets}} \)

Here, total assets and fixed assets are net of depreciation and the assets are exclusive of fictitious assets like debit balance of profit and loss account, deferred expenditures, etc.

The assets turnover ratio, howsoever defined, measures the efficiency of a firm in managing and utilizing its assets. The higher the turnover ratio, the more efficient the management and utilization of the assets while low turnover ratios are indicative of under-utilization of available resources and presence of idle capacity. In operational terms, it implies that the firm can expand its activity level (in terms of production and sales) without requiring capital investments. In the case of high ratios, the firm would normally be required, other things being equal, to make additional capital investments to operate at higher level of activity. To determine the efficiency of the ratio it should be compared across time as well as with the industry average. In using the assets turnover ratios one point must be carefully kept in mind. The concept of assets/fixed assets is net of depreciation. As a result, the ratio is likely to be higher in the case of an old and established company as compared to a new one, other things being equal. The turnover ratio is in such cases likely to give a misleading impression.
regarding the relative efficiency with which assets are being used. It should, therefore, be cautiously used.¹

**PROFITABILITY RATIOS**

A company should earn profits to survive and grow over a long period of time. Profits are essential, but it would be wrong to say that every action initiated by management of a company is aimed at maximizing profits, irrespective of social consequences. It is unfortunate that the word 'profit' is looked upon as a term of abuse since some firms always want to maximize profits at the cost of employees, customers and society. Except such infrequent cases, it is a fact that sufficient profits must be earned to sustain the operations of the business, so that it is able to obtain funds from investors for expansion and growth and to contribute towards the social overheads for the welfare of the society.²

Profit is the difference between revenues and expenses over a period of time (usually one year). It is the ultimate 'output' of a company, and the company will have no future if it fails to make sufficient profits. Therefore, the financial manager should continuously evaluate the efficiency of the company in terms of profit. The profitability ratios are calculated to measure the operating efficiency of the concern. Besides the management, creditors and owners are also interested in the profitability of the firm. Creditors want to get interest regularly and repayment of the principal sum. Owners want to get a required rate of return on their investment. This is possible only when the company earns enough profits.

Generally, two major types of profitability ratios are calculated:

• profitability in relation to sales.

• profitability in relation to investment.

Profit can be measured in various ways. Gross profit (GP) is the difference between sales and manufacturing cost of goods sold. Different companies in India define gross profit differently. They define it as earnings before depreciation, interest and taxes. The most common measure of profit is profit after taxes (PAT), or net income (NI) which is the result of the impact of all factors on the firm's earnings. Taxes are not controllable by management. To separate the influence of taxes, profit before taxes (PBT) are computed. If the firm's profit has to be examined from the point of view of all investors (lenders and owners), the appropriate measure of profit is operating profit. Operating profit is equivalent to earnings before interest and taxes (EBIT) when the firm does not have non-operating income. This measure of profit shows earnings arising directly from the commercial operations of the business without the effect on financing. The concept of EBIT may be broadened to include non-operating income if they exist. On an after-tax basis, profit to investors is equal to: EBIT (1-T), where T is the corporate tax rate.

Profitability ratios can be determined on the basis of either sales or investments. These ratios in relation to sales are (a) profit margin (gross and net ratio), (b) expenses ratio or operating ratio. Profitability in relation to investments is measured by (a) return on assets, (b) return on capital employed, and (c) return on shareholder's equity.

Profitability Ratios Related to Sales

These ratios are based on the premise that a firm should earn sufficient profit on each rupee of sales. If adequate profits are not earned on sales, there will be difficulty in meeting the operating expenses and no returns will be available to the owners. As already stated, these ratios consist of (i) profit margin and (ii) expenses ratios.

Profit Margin

The profit margin measures the relationship between profit and sales. As the profits may be gross or net, there are two types of profit margin: Gross profit margin and Net profit margin.

Gross Profit Margin

The first profitability ratio in relation to sales is the gross profit margin (or simply gross margin) ratio. It is calculated by dividing the gross profit by sales:

\[
\text{Gross profit margin} = \frac{\text{Sale} - \text{Cost of goods sold}}{\text{Sale}} = \frac{\text{Gross profit}}{\text{Sale}}
\]

The gross profit margin ratio reflects the efficiency with which management produces each unit of product. This ratio indicates the average spread between the cost of goods sold and the sales revenue. When we subtract the gross profit margin from 100 percent, we obtain the ratio of cost of goods sold to sales. Both these ratios show profits relative to sales after the deduction of production cost, and indicate the relation between production costs and selling price. A high gross profit margin relative to the industry average implies that the firm is able to produce at relatively lower cost.
A high gross profit margin ratio is a sign of good management. The ratio may increase due to any of the following factors: (i) higher sale prices, cost of goods sold remaining constant, (ii) lower cost of goods sold, sales prices remaining constant, (iii) a combination of variations in sales prices and costs, the margin widening, and (iv) an increase in the proportionate volume of higher margin items. The analysis of these factors will reveal to the management how a depressed gross profit margin can be improved.

A low gross profit margin may reflect higher cost of goods sold due to the firm's inability to purchase raw materials at favourable terms, inefficient utilization of plant and machinery, or overinvestment in plant and machinery, resulting in higher cost of production. The ratio may also be low due to a fall in prices in the market, or marked reduction in selling price by the firm in an attempt to obtain large sales volume, the cost of goods sold remaining unchanged. The financial manager must be able to detect the causes of a falling gross margin and initiate action to improve the situation.

Net Profit Margin

Net profit is obtained when operating expense, interest and taxes are subtracted from the gross profit. The Net profit margin ratio is measured by dividing profit after tax by sales:

\[
\text{Net profit margin} = \frac{\text{Profit after tax (PAT)}}{\text{Sales}}
\]

The net profit margin is indicative of "management's ability to operate the business with sufficient success, not only to recover from

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revenues of the period, cost of merchandise or services, expenses of operating the business (including depreciation) and the cost of the borrowed funds, but also to leave a margin of reasonable compensation to the owners for the risk they bear. The ratio of net profit (after interest and taxes) to sales essentially expresses the cost and price effectiveness of the operation.\(^1\)

A high net profit margin would ensure adequate return to the owners as well as enable a firm to withstand adverse economic conditions when selling price is declining, cost of production is rising and demand for the product is falling.

A low net profit margin has the opposite implications. However, a firm with a low profit margin can earn a high rate of return on investments if it has a higher inventory turnover. This aspect is covered in detail in the subsequent discussion. The profit margin should, therefore, be evaluated in relation to the turnover ratio. In other words, the over-all rate of return is the product of the net profit margin and the investment turnover ratio. Similarly, the gross profit margin and the net profit margin should be jointly evaluated. The need for joint analysis arises because the two ratios may show different trends. For example, the gross margin may show a substantial increase over a period of time but the net profit margin may (i) remain constant, or (ii) may not increase as fast as the gross margin, or (iii) may actually decline. It may be due to the fact that the increase in the operating expenses may be more than proportionate to sales or some of the operating expenses individually may behave abnormally. On the other hand, if either as a whole or individual items of operating expenses decline substantially, a

decrease in gross margin may be associated with an improvement in the net profit margin.

*Operating Expense Ratio*

The *operating expense ratio* explains the changes in the profit margin (EBIT to sales) ratio. This ratio is computed by dividing operating expenses *viz.*, cost of goods sold plus selling expenses and general and administrative expenses (excluding interest) by sales:

\[
\text{Operating expense ratio} = \frac{\text{Operating expenses}}{\text{Sales}}
\]

A higher operating expenses ratio is unfavorable since it will leave a small amount of operating income to meet interest, dividends, etc. To get a comprehensive idea of the behaviour of operating expenses, variations in the ratio over a number of years should be studied. Certain expenses are within the managerial discretion; therefore, it should be seen whether change in *discretionary expenses* is due to changes in the management policy. Detailed analysis may reveal that the year-to-year variations in the operating expense ratio are temporary in nature arising due to some temporary conditions. The variations in the ratio, temporary or long-lived, can occur due to several reasons such as: (a) change in the sales price, (b) change in the demand for the product, (c) change in the administrative or selling expenses, or (d) change in the proportionate shares of sales of different products with varying gross margins. These and other causes of variations in the operating ratio should be thoroughly examined.

The operating expense ratio is a yardstick of operating efficiency, but it should be used cautiously. It is affected by a number of factors, such as external uncontrollable factors, internal factors, employees and managerial efficiency (or inefficiency), all of which are
difficult to analyze. Further, the ratio cannot be used as a test of financial condition in the case of those firms where non-operating revenue and expenses form a *substantial* part of the total income.

The operating expense ratio indicates the average aggregative variations in expenses, where some of the expenses may be increasing while others may be falling. Thus, to know the behaviour of specific expense items, the ratio of each individual operating expense to sales should be calculated. These ratios when compared from year to year for the firm will throw light on the managerial policies and programmes. For example, the increase in selling expenses without a sufficient increase in sales, can imply uncontrolled sales promotional expenditure, inefficiency of the marketing department, general rise in selling expenses, or introduction of better substitutes by competitors. The expenses ratios of the firm should be compared with the ratios of similar firms and the industry average. This will reveal whether the firm is paying higher or lower salaries to its employees as compared to other firms; whether its capacity utilization is high or low; whether the salesmen are given enough commission; whether it is unnecessarily spending on advertisement and other sales promotional activities; whether its cost of production is high or low and so on.

**Profitability Ratios Related to Investment: Return on Investments (ROI)**

The profitability ratios can be also computed by relating the profits of a firm to its investments. Such ratios are popularly termed as Return on Investments (ROI).

There are three different concepts of investments in vague in financial literature: assets, capital employed and shareholders’ equity. Based on each of them, there are three broad categories of ROIs. They
are: (a) return on assets, (b) return on capital employed, and (c) return on shareholders' equity.

Return on Assets (ROA)

Here, the profitability ratio is measured in terms of the relationship between net profits and assets. The ROA may also be called profit-to-assets ratio. There are various possible approaches to define net profits and assets according to the purposes and intent of the calculation of the ratio. Depending upon how these two terms is defined the concept of net profit may be (i) net profits after taxes, (ii) net profits after taxes plus interest, and (iii) net profits after taxes plus interest minus tax savings.¹

Assets may be defined as (i) total assets, (ii) fixed assets, and (iii) tangible assets.

\[
\text{Return on assets (ROA)} = \frac{\text{Net profit after taxes}}{\text{Average total assets}}
\]

Return on Capital Employed (ROCE)

The ROCE is the second type of the ROI. It is similar to the ROA except in one respect. Here the profits are related to the total capital employed. The term capital employed refers to long-term funds supplied by the creditors and owners of the firm. It can be computed in two ways. First, it is equal to non-current liabilities (long-term liabilities) plus owners' equity. Alternatively, it is equivalent to net working capital plus fixed assets. Thus, the capital employed basis provides a test of profitability related to the sources of long-term funds. A comparison of this ratio with similar firms, or with the industry average would provide

sufficient insight into how efficiently the long-term funds of owners and creditors are being used. The higher the ratio, the more efficient is the use of the capital employed.

The ROCE can be computed by using profit after tax and dividing it by the average total capital employed. Thus,

\[
\text{ROCE} = \frac{\text{Profit after taxes}}{\text{Average total capital employed}}
\]

**Return on Total Shareholders' Equity**

According to this ratio, profitability is measured by dividing the net profit after taxes (but before preference dividend) by the average total shareholders' equity. The term shareholders' equity includes (i) preference share capital; (ii) ordinary shareholders' equity consisting of (a) equity share capital, (b) share premium, (c) reserves and surplus less accumulated losses. The ordinary shareholders' equity is also referred to as net worth. Thus, this ratio reveals how profitably the owners' funds have been utilized by the firm. A comparison of this ratio with that of similar firms, as also with the industry average will throw light on the relative performance and strength of the firm.

\[
\text{Return on total shareholders' equity} = \frac{\text{Net profit after taxes}}{\text{Average total shareholders' equity}}
\]

**Earning Power-Over-all Profitability**

The various profitability ratios discussed above throw light on the profitability of a firm from the viewpoint of (a) the owners of the firm, and (b) the operating efficiency of the firm. The ratios covered under the rate of return to the equity holders fall under the first category. The operating efficiency of a firm in terms of the efficient utilization of the
resources is reflected in net profit margin. It has been observed that although a high profit margin is a test of better performance, a low margin does not necessarily imply a lower rate of return on investments if a firm has higher investment/assets turnover. Therefore, the over-all operating efficiency of a firm can be assessed on the basis of a combination of the two. The combined profitability is referred to as earning power or return on investment (ROI) ratio. The earning power of a firm may be defined as the over-all profitability of an enterprise. This ratio has two elements: (i) profitability on sales as reflected in the net profit margin, and (ii) profitability on investments which is revealed by the investment (assets) turnover. The earning power (ROI ratio) of a firm can be computed by multiplying the net profit margin and the investment (assets) turnover. Thus,

Earning power = Net profit margin x Investment turnover

We know that:

Net profit margin = \frac{Net profit after taxes}{Sales}

Investment turnover = \frac{Sales}{Average total investment}

The term of investment may refer to (i) total assets, (ii) capital employed, and (iii) shareholders' equity. For the purpose of investment turnover, the term has been used here in the first sense; i.e. assets. The earning power may be calculated as follows:-

Earning power = \frac{Net profit after taxes \times Sales}{Sales \times Total assets}

= \frac{Net profit after taxes}{Total assets}
Meaning and Concept of Funds Management

Funds are the life-blood and nerve knot of any business. No business can live and run smoothly and successfully without funds. A business enterprise is a flow of activities directed towards achievement of its objectives. The availability of funds sets the limit of what a business enterprise can achieve. In other words it can be said that business is a continuous process of arranging funds from various sources and using them to fulfill its objectives. Thus, the most significant of all financial activities of a concern is raising and management of funds. The funds required by a business enterprise may be generated from within or obtained from outside sources. In both cases, they have costs attached to them, and therefore, they must be put to the optimum use. In a business enterprise funds are needed for supply of inventories of raw materials, work-in-progress and finished goods, to meet out wages, bills and factory overheads, to pay off taxes and insurance, to incur selling expenses and to provide credit facilities to customers. These are also required to cover daily as well as seasonal requirements.

Thus, every action of a business enterprise gives rise to either an inflow of funds or an outflow of funds. Some of these inflows and outflows occur internally and some inflows and outflows arise in respect of the dealings of the enterprise with the external environment. Productive management of these inflows and outflows of funds to the maximum benefit of the enterprise is called "Funds Management". An efficient funds management is an essential prerequisite for the achievement of the ultimate objective of any business enterprise. It involves the strategic deployment of available funds and effective control of such deployed funds so as to ensure that they are put to the optimum use. Effectiveness and efficiency of funds management can be judged and justified through careful "funds flow analysis".
Fund Flow Analysis

Movement of funds in a business enterprise is analyzed and studied with the help of Fund Flow Statement. Fund Flow Statement is merely a statement which summarizes the financial activities of the concern during the immediately preceding year. It shows the ebb and flow of funds into and out of business. It helps in understanding the financial position of a business more clearly as it throws ample light on certain fruitful relationships between the balance sheet at the commencement and at the end of the accounting period. These relationships are not clearly mirrored in the balance sheet and the income statement.

Flow of funds means the movement in the funds position of any business during a given time as revealed by its financial statements. Such movements may be both inward and outward. The former is called 'inflow' and the later 'outflow' of funds.¹

The Concept of Fund

The term 'funds' has a variety of meanings. Some define it as 'cash' and they concern themselves only with the movements in the cash account. According to them, a funds statement is nothing but a statement of the net effects of various kinds of business events on cash. A record of cash receipts and disbursements though valuable in its own way and undoubtedly a form of funds statements, has a limited significance and fails to bring to light many important changes involving the disposition of resources. At the other end, there are those who view funds in a broader perspective, i.e., all assets to which the firm's resources stand committed and all liabilities from where these resources are obtained. This is known as financial resources concept

of funds. In between these two concepts is the third and most acceptable one which views 'funds' as 'net working capital'. Net working capital denotes excess of current assets over current liabilities. In the present study, the term 'funds' has been taken as net working capital.

The term 'flow' refers to change or transfer, and therefore, the 'flow of funds' means 'changes in working capital'. The changes in funds (i.e. current assets and current liabilities) occur when changes occurring in non-current assets and non-current liabilities are offset by corresponding changes in current assets and current liabilities. Transactions which do not affect the working capital items are treated as non-fund transactions and are excluded from the funds flow analysis.

Thus, funds flow statement is one of the important statements which depicts sources and uses of working capital funds. Almand Coleman rightly observes: "The funds statement is a statement summarizing the significant financial changes which occur between the beginning and the end of a company's accounting period".1 "Fund Flow Statement", to quote A. Roy, "is a technical device designed to analyze the changes in the financial conditions of a business enterprise between two dates."2 According to Robert N. Anthony, "Fund flow statement describes the sources from which additional funds were derived and the uses to which these funds were put."3 This statement is variously known as 'Statement of Application and Sources of Funds', 'Statement of Sources and Uses of Funds', 'Statement of Funds Provided and Funds Applied', 'Where got and Where gone Statement', 'Statement of Changes in Financial Position', etc.

The Accounting Principles Board (APB) suggested that the funds statement should disclose separately the financing and investing aspects of all significant transactions that affect the financial position during the period. This means that when somebody is showing the sources and uses of working capital funds, he should also include in that a statement of changes in financial position, which occur as a result of such things as the acquisition of a fixed asset by executing a mortgage note and other similar transactions. When any asset is acquired like this, money is invested in that asset. Cash may not be paid for it, but some fund of value is given in exchange. On the contrary, an increase in liabilities provides the channel and the source from which this fund is obtained.

Importance and Usefulness of Fund Flow Statement

Highlighting the changes in the resources of an undertaking, the fund flow statement enables the financial manager to have a clear perspective of the organization's financial strengths and weaknesses. It provides an effective method for the financial manager to assess the growth of the firm and its resulting financial needs and to determine the best way to finance those needs. The uses of the fund flow statement are as follows:

(i) It explains the financial consequences of business operations. For example, a business may be earning huge profits but its liquidity position may be highly unsatisfactory. The funds flow statement explains the causes of such a seemingly irreconcilable situation by showing what has been done of the profits earned. Further, the statement points out the direction of flow of funds and activities considered more

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beneficial for the efficient working of the enterprise and which is very essential for effective managerial control.

(ii) It is also useful from the creditors' or lenders' point of view insofar as with the help of funds flow statement they ascertain the credit worthiness and the funds generating capacity of the organization.

(iii) It acts as an instrument for allocation of the company's scarce resources. Fund flow statement helps to find out how the management is going to allocate resources for meeting the future productive programmes of the business.

(iv) It is a test for evaluating the effective use of working capital by the management.

On the whole, some of the important questions that may be answered with the help of this statement are:

(a) Where do the profits go? Why are they not available for payment of dividends or financing of an expansion programme?

(b) How is it possible to distribute dividends in excess of current earnings or in the presence of a net loss for the period?

(c) Why have the net current assets gone down although the net income has gone up and in what manner or vice versa?

(d) How is the expansion in plant and equipment financed?

(e) What happened to the proceeds of the sale of plant and equipment?

(f) How is the retirement of debt accomplished?
(g) What happens to the proceeds of share issue or debenture issue?

(h) How is the increase in the working capital financed?

Definite answers to the above questions are seldom obtainable from causal inspection of the fund flow statement. The funds derived from a particular source are rarely segregated and used for a particular purpose. On the other hand, they are merged with other funds and allocated under the overall decision and policies of financial management. However, certain useful assumptions can often be made and reasonable conclusions are usually not difficult to arrive at.

Limitations of Fund Flow Statement

Despite its multiple uses, the funds flow statement suffers from certain limitations which are given below:

(i) As this statement ignores non-fund items, it becomes a crude device as compared to the income statement and balance sheet.

(ii) The fund flow statement shows the changes that have taken place between two balance sheet dates. It does not show the detailed path of the changes.

(iii) The statement does not reveal shifts among the items making up the current assets and current liabilities. It does not tell whether any loss of working capital has unduly weakened the financial position. Only an examination of the balance sheet at the end of the period will show the end-effects of these changes. Therefore, the fund flow statement cannot supplant but only supplement the conventional financial statements, either in whole or in part.
(iv) The information used for the preparation of the fund flow statement is essentially historical in nature, though this statement is also projected for the future period but it is based on a set of budget accounts. These budget accounts are themselves based on sales forecasts/estimates, which may not be accurate.

Notwithstanding these limitations, the information communicated by the fund flow statement is really an invaluable aid to the management in planning capital expenditure, declaring dividend, other financial policies, etc.

Sources of Funds

In a business enterprise funds come from (i) internal sources and (ii) external sources. Internal sources are in the form of 'profit from operations' in the business. External sources are in the form of the amount received on account of fresh issues, long-term borrowings from financial institutions, sale of fixed assets, sale of investments, etc.

Uses of Funds

The funds obtained in the business are mainly used for repayment of long-term liabilities such as long-term loans, debentures etc., purchase of fixed assets, purchase of investments, payment of non-operating expenses, etc. In case of loss from operations also, there shall be an outflow of funds.

The Fund Flow Analysis is a report on the financial operation of a business undertaking. This analysis reveals the sources from which funds have been received during an operating year and how these have been utilized within the business. This analysis is done on the balance sheets pertaining to two distinct periods. The analysis would reveal the sources and uses of funds between these two periods.
The sources of funds to a firm would be two fold. One way in which a firm can find funds is by disposing off its assets. Thus if between two periods the-figures for an asset in the recent period is lower than the figures in the previous year, this would indicate that the difference between the two has been made up by the firm and the funds have been diverted else where within the firm. Another direct source of fund to the firm is by increasing the liabilities. This can be done through direct: borrowings or by increasing the Share Capital. The firm can increase its liabilities and in the process find funds for use else where within the business.

Similarly, uses of funds can be for two specific purposes. One is to create assets and the other for reducing liabilities.

The sources of funds would be indicated by reduction in assets and increase in liabilities, while uses of funds would be indicated by an increase in assets and reduction in liabilities.

The analysis is done by placing the comparable figures under different heads for the two periods side by side and identifying the increase or decrease under each head. Then using the methods indicated above, a summary analysis is prepared under sources and uses or application of funds.