Centre for distance and

Online education
Punjabi university Patiala

Class : b.com part- III semester - 5th
Paper : b.com- 3503 (Management accounting) unit: 1
English

Lesson no. (Updated on 26th June 2023)

1.1 : Management Accounting : Nature and Scope
1.2 : Financial Statements - Analysis
1.3 : Funds Flow Statement
1.4 : Cash Flow Statement
1.5 : Ratio Analysis

Pass Marks : 35%
Periods per week : 6

Internal Assessment: 30
External Assessment: 70

Note : Simple Calculator(not scientific) is allowed

INSTRUCTIONS FOR THE PAPER SETTER/ EXAMINERS

The question paper covering the entire course shall be divided into three sections as follows.

SECTION-A

It will consist of essay type and numerical questions. Four questions, two theory and two numerical, shall be set by the examiner from Unit-I of the syllabus and the candidate shall be required to attempt two. Each question shall carry 10 marks; total weight of the section shall be 20 marks.

SECTION-B

It will consist of essay type and numerical questions. Four questions, two theory and two numerical, shall be set by the examiner from Unit-II of the syllabus and the candidate shall be required to attempt two. Each question shall carry 10 marks; total weight of the section shall be 20 marks.

SECTION-C

It will consist of 12 very short answer questions(six theory and six numerical) from entire syllabus. Students are required to attempt 10 questions up to five lines in length. Each question shall carry 3 marks; total weight of the section shall be 30 marks

UNIT – I

Management Accounting : Meaning, Definition, Nature, Objectives, Scope and Functions of Management Accounting, Management Accounting and Financial Accounting, Management and Cost Accounting; Utility of Management Accounting, Role of Management Accounting in decision making; Management Accounting Tools; Advantages and Limitations of Management Accounting.

Financial Statements: Concept, Nature, Objectives of Financial Statements, Types of Financial Statements; Limitations of Financial Statements; Analysis and Interpretation of Financial Statements: Objectives, Types and Methods of Financial Statements Analysis.

Fund Flow Analysis: Concept of Funds, Sources and Uses of Funds, Concept of Flow, Funds Flow Statement, Managerial uses of Funds Flow Analysis, Statement of Changes in working Capital, Funds Flow Statements.

Cash Flow Analysis: Indian Accounting Standard – 3, Cash Flow Statement.

UNIT – II

Comparative Statements, Common size statements, and Trend analysis.

Ratio analysis : Meaning of Ratios, Classification of Ratios, Profitability ratios, Turnover ratios, Liquidity ratios, Solvency ratios; Calculation and interpretation of the ratios; Advantage of Ratio Analysis; Limitations of Accounting Ratios.

Course Outcome: After completion of this course students will learn about meaning, scope, function, role, utility and tools of management accounting. They will also learn about financial statements and their analysis, fund flow statements, cash flow statements and ratio analysis.

Note: Assignments must be based on case studies.

LESSON NO. 1.1 AUTHOR : ASHWANI KUMAR

MANAGEMENT ACCOUNTING: NATURE AND SCOPE

LESSON STRUCTURE

1.1.1 OBJECTIVES:

The present lesson explains the meaning, nature, scope and limitations of management accounting. Further, it discusses the activities covered under management accounting and its difference with financial accounting.

1.1.2 INTRODUCTION

Management accounting can be viewed as Management-oriented Accounting. Basically it is the study of managerial aspect of financial accounting, "accounting in relation to management function". It shows how the accounting function can be re-oriented so as to fit it within the framework of management activity. The primary task of management accounting is, therefore, to redesign the entire accounting system so that it may serve the operational needs of the firm. It furnishes definite accounting information of past, present or future, which may be used as a basis for management action. The financial data are so devised and systematically development that they become a unique tool for management decision.

1.1.3 DEFINITIONS OF MANAGEMENT ACCOUNTING

The term “Management Accounting”, covers all those services by which the accounting department can assist the top management and other departments in the formation of policy, control of execution and appreciation of effectiveness. This

definition points out that management is entrusted with the primary task of planning, execution and control of the operating activities of an enterprise. It constantly needs accounting information on which to base its decision. A decision based on data is usually correct and the risk of error is minimized. The position of the management in respect of its functions can be compared to that of an army general who wants to wage a successful battle. A general can hardly fight successfully unless he gets full information about the surrounding situation and the extent of effectiveness of each of his battalions and, to the extend possible, even the enemy's intentions. Like a general a successful management too strives to outstrip other competitors in the field by streamlining its operating efficiency. It needs a thorough knowledge of the situation and the circumstances in which the firm operates. Such knowledge can only be gained through the processed financial data rendered by the accounting department on the basis of which it can take policy decision regarding execution, control, etc. It is here that the role of management accounting comes in. It supplies all sorts of accounting information in the form of such statements as may be needed by the management. Therefore, management accounting is concerned with the accumulation, classification and interpretation of information that assists individual executives to fulfill organizational objectives.

The Report of the Anglo-American Council of Productivity (1950) has also given a definition of management accounting, which has been widely accepted. According to it, "Management accounting is the presentation of accounting information in such a way as to assist the management in creation of policy and the day to day operation of an undertaking". The reasoning added to this statement was, "the technique of accounting is of extreme importance because it works in the most nearly universal medium available for the expression of facts, so that facts of great diversity can be represented in the same picture. It is not the production of these pictures that is a function of management but the use of them." An analysis of the above definition shows that management needs information for better decision-making and effectiveness. The collection and presentation of such information come within the area of management accounting. Thus, accounting information should be recorded and presented in the form of reports at such frequent intervals, as the management may want. These reports present a systematic review of past events as well as an analytical survey of current economic trends. Such reports are mainly suggestive in approach and the data contained in them are quite up to date. The accounting data so supplied thus provide the informational basis of action. The quality of information so supplied depends upon its usefulness to management in decision-making. The usual approach is that, first of all, a thorough analysis of the whole managerial process is made, then the information required for each area is explored, and finally, all the information, after analysis in terms of alternatives, is taken into consideration before arriving at a management decision. It is to be understood here that the accounting information has no end in itself; it is a means to an end. As its basic idea is to serve the management, its form and frequency are

all decided by managerial needs. Therefore, accounting aids the management by providing quantitative information on the economic well being of the enterprise. It would be appropriate if we called management accounting an Enterprise Economics. Its scope extends to the use of certain modern sophisticated managerial techniques in analyzing and interpreting operative data and to the establishment of a communication network for financial reporting at all managerial levels of an organization.

1.1.4 NATURE OF MANAGEMENT ACCOUNTING

The term management accounting is composed of 'management' and 'accounting'. The word 'management' here does not signify only the top management but the entire personnel charged with the authority and responsibility of operating an enterprise. The task of management accounting involves furnishing accounting information to the management, which may base its decisions on it. It is through management accounting that the management gets the tools for an analysis of its administrative action and can lay suitable stress on the possible alternatives in terms of costs, prices and profits, etc. but it should be understood that the accounting information supplied to management is not the sole basis for managerial decisions. Along with the accounting information, management takes into consideration or weighs other factors concerning actual execution. For reaching a final decision, management has to apply its common sense, foresight, knowledge and experience of operating an enterprise, in addition to the information that it already has.

The word 'accounting' used in this phrase should not lead us to believe that it is restricted to a mere record of business transactions i.e., book keeping only. It has indeed a 'macro-economic approach'. As it draws its raw material from several other disciplines like costing, statistics, mathematics, financial accounting, etc., it can be called an interdisciplinary subject, the scope of which is not clearly demarcated. Other fields of study, which can be covered by management accounting, are political science, sociology, psychology, management, economics, statistics, law, etc. A knowledge of political science helps to understand authority relationship and responsibility identification in an organization. A study of sociology helps to understand the behaviour of man in groups. Psychology enables us to know the mental make-up of employers and employees. A knowledge of these subjects helps to increase motivation, and to control the actions of the people who are ultimately responsible for costs. This builds a better employer-employee relationship and a sound morale. The subject of management reveals the processes involved in the art of managing, a knowledge of economics assists in the determination of optimum output in the forecasting of sales and production, etc., and also makes it possible to analyze management action in terms of cost revenues, profits, growth, etc. It is with the help of statistics that this information is presented to the management in a form that can be assimilated. The subject of management accounting also

encompasses the subject of law, knowledge of which is necessary to find out if the management action is ultra-vires or not. It is, therefore, a wide and diverse subject.

Management accounting has no set principles such as the double entry system of book keeping. In place of generally accepted accounting principles, the philosophy of cost benefit analysis is the core guide of this discipline. It says that no accounting system is good or bad but is can be considered desirable so long as it brings incremental benefits in excess of its incremental costs. Applying management accounting principles to financial matters can arrive at no single perfect solution. It is, therefore, an inexact science, which uses its own conventions rather than standardized principles. The facts to be studied here can be interpreted in different ways and the precision of the inferences depends upon the skill, judgement and common sense of different management accountants. It occupies a middle position between a fully matured and an infant subject.

Since management accounting is managerially oriented, its data is selective in nature. It focuses on potential opportunities rather than opportunities lost. The data is operative in nature catering to the operational needs of a firm. It details events, monetary and non-monetary. The nature of data, the form of presentation and its duration are mainly determined by managerial needs. It is quite frequently reported as it is meant for internal uses and managerial control. An accountant should look at his enterprise from the management's point of view. Whenever he fails to do that he ceases to be a management accountant.

Management accounting is highly sensitive to management needs. However, it assists the management and does not replace it. It represents a service phase of management rather than a service to management from management accountant. It is rather highly personalized service. Finally, it can be said that the management accounting serves as a management information system and so enables the management to manage better.

1.1.5 FUNCTIONS OF MANAGEMENT ACCOUNTING

The basic function of management accounting is to assist the management in performing its functions effectively. The functions of the management are planning, organizing, directing and controlling. Management accounting helps in the performance of each of these functions in the following ways:

(i) Provides data: Management accounting serves as a vital source of data for management planning. The accounts and documents are a repository of a vast quantity of data about the past progress of the enterprise, which are a must for making forecasts for the future.

(ii) Modifies data: The accounting data required for managerial decisions is properly compiled and classified. For example, purchase figures for different months may be classified to know total purchases made during each period product-wise, supplier-wise and territory-wise.

(iii) Analyses and interprets data: The accounting data is analyzed meaningfully for effective planning and decision-making. For this purpose the data

is presented in a comparative form. Ratios are calculated and likely trends are projected.

(iv) Serves as a means of communicating: Management accounting provides a means of communicating management plans upward, downward and outward through the organization. Initially, it means identifying the feasibility and consistency of the various segments of the plan. At later stages it keeps all parties informed about the plans that have been agreed upon and their roles in these plans.

(v) Facilitates control: Management accounting helps in translating given objectives and strategy into specified goals for attainment by a specified time and secures effective accomplishment of these goals in an efficient manner. All this is made possible through budgetary control and standard costing which is an integral part of management accounting.

(vi) Uses qualitative information also: Management accounting does not restrict itself to financial data for helping the management in decision making but also uses such information which may not be capable of being measured in monetary terms. Such information may be collected form special surveys, statistical compilations, engineering records, etc.

1.1.6 SCOPE OF MANAGEMENT ACCOUNTING

Management accounting is concerned with presentation of accounting information in the most useful way for the management. Its scope is, therefore, quite vast and includes within its fold almost all aspects of business operations. However, the following areas can rightly be identified as falling within the ambit of management accounting:

(i) Financial Accounting: Management accounting is mainly concerned with the rearrangement of the information provided by financial accounting. Hence, management cannot obtain full control and coordination of operations without a properly designed financial accounting system.

(ii) Cost Accounting: Standard costing, marginal costing, opportunity cost analysis, differential costing and other cost techniques play a useful role in operation and control of the business undertaking.

(iii) Revaluation Accounting: This is concerned with ensuring that capital is maintained intact in real terms and profit is calculated with this fact in mind.

(iv) Budgetary Control: This includes framing of budgets, comparison of actual performance with the budgeted performance, computation of variances, finding of their causes, etc.

(v) Inventory Control: It includes control over inventory from the time it is acquired till its final disposal.

(vi) Statistical Methods: Graphs, charts, pictorial presentation, index numbers and other statistical methods make the information more impressive and intelligible.

(vii) Interim Reporting: This includes preparation of monthly, quarterly, half-yearly income statements and the related reports, cash flow and funds flow statements, scrap reports, etc.

(viii) Taxation: This includes computation of income in accordance with the tax laws, filing of returns and making tax payments.

(ix) Office Services: This includes maintenance of proper data processing and other office management services, reporting on best use of mechanical and electronic devices.

(x) Internal Audit: Development of a suitable internal audit system for internal control.

1.1.7 MANAGEMENT ACCOUNTANT

Management Accounting provides significant economic and financial data to the management and the Management Accountant is the channel through which this information efficiently and effectively flows to the management. The Management Accountant has a very significant role to perform in the installation, development and functioning of an efficient and effective management information system. He designs the framework of the financial and cost control reports that provide each management level with the most useful data at the most appropriate time. He educates executives in the need for control information and ways of using it. This is because his position is unique with respect to information about the organization. Apart from top management no one in the organization perhaps knows more about the various functions of the organization than him. He is, therefore, sometimes described as the Chief Intelligence Officer of the top management. He gathers information, breaks it down, sifts it out and organizes it into meaningful categories. He separates relevant and irrelevant information and then ranks relevant information in an intelligible form to the management and sometimes also to those who are interested in the information outside the company. He also compares the actual performance with the planned one and reports and interprets the results of operations to all levels of management and to the owners of the business. Thus, in brief, management accountant or controller is the person who designs the management information system for the organization, operates it by means of interlocked budgets, computes variances and exhorts others to institute corrective measures. Mr. P.L. Tandon has explained beautifully the position of the management accountant in the following words.

"The management accountant is exactly like the spokes in a wheel, connecting the rim of the wheel and the hub receiving the information. He processes the information and then returns the processed information back to where it came from"

Dr. Don barker sees a very bright future for the management accountants. According to him, "Management Accountants will be presented with many opportunities for innovative actions in the global economic environment. In addition to their role of providing accurate, timely and relevant information, management

accountants will be expected to participate as business consultants and partners with management in the strategic planning process". Thus, there are tremendous possibilities for management accountants to shine as a professional group in the years to come. To fit in this role, it is necessary that the management accountants develop effective communication abilities, adopt a structured approach, a flexible accommodation and keep themselves aware with the latest evolving technologies in the profession.

1.1.8 FUNCTIONS OF MANAGEMENT ACCOUNTANT

It is the duty of the management accountant to keep all levels of management informed of their real position. He has, therefore, varied functions to perform. His important functions can be summarized as follows:

(i) Planning: He has to establish, coordinate and administer as an integral part of management, an adequate plan for the control of the operations. Such a plan would include profit planning, programmes of capital investment and financing, sales forecasts, expenses budgets and cost standards.

(ii) Controlling: He has to compare actual performance with operating plans and standards and to report and interpret the results of operations to all levels of management and the owners of the business. This is done through the compilation of appropriate accounting and statistical records and reports.

(iii) Coordinating: He consults all segments of management responsible for policy or action. Such consultation might concern any phase of the operation of the business having to do with attainment of objectives and the effectiveness of the organizational structures and policies.

(iv) Other functions:

- He administers tax policies and procedures.
- He supervises and coordinated the preparation of reports to governmental agencies.
- He ensures fiscal protection for the assets of the business through adequate internal control and proper insurance coverage.
- He carries out continuous appraisal economic and social forces and the government influences, and interprets their effect on the business.

It should be noted that the functions of a Management Accountant are more of those of a 'staff official'. He, in addition to processing historical data, supplies a good deal of information concerning the future operations in line with the management's needs. Besides serving top management with information concerning the company as a whole, he supplies detailed information to the line officers regarding alternative plans and their profitability, which help them in decision-making. As a matter of fact the Management Accountant should not bother himself regarding the decision taken by the line officials after tendering advice unless he has reasonable grounds to believe that such a decision is going to affect the

interests of corporation adversely. In such an event also he should report it to the concerned level of management with tact, firmness combined with politeness.

1.1.9 MANAGEMENT ACCOUNTING Vs. FINANCIAL ACCOUNTING

Financial accounting and management accounting are closely interrelated since management accounting is to a large extent rearrangement of the data provided by financial accounting. Moreover, all accounting is financial in the sense that all accounting systems are in monetary terms and management is responsible for the contents of the financial accounting statements. In spite of such a close relationship between the two, there are certain fundamental differences. These differences can be laid down as follows:

(i) Objectives: Financial accounting is designed to supply information in the form of profit and loss account and balance sheet to external parties like shareholders, creditors, banks, investors and Government. Information is supplied periodically and is usually of such type in which management is not much interested. Management Accounting is designed principally for providing accounting information for internal use of the management. Thus, financial accounting is primarily an external reporting process while management accounting is primarily an internal reporting process.

(ii) Analyzing performance: Financial accounting portrays the position of business as a whole. The financial statements like income statement and balance sheet report on overall performance or statues of the business. On the other hand, management accounting directs its attention to the various divisions, departments of the business and reports about the profitability, performance, etc., of each of them. Financial accounting deals with the aggregates and, therefore, cannot reveal what part of the management action is going wrong and why. Management accounting provides detailed analytical data for these purposes.

(iii) Data used: Financial accounting is concerned with the monetary record of past events. It is a post-mortem analysis of past activity and, therefore, out the date for management action. Management accounting is accounting for future and, therefore, it supplies data both for present and future duly analyzed in detail in the 'management language' so that it becomes a base for management action.

(iv) Monetary measurement: In financial accounting only such economic events find place, which can be described in money. However, the management is equally interested in non-monetary economic events, viz., technical innovations, personnel in the organization, changes in the value of money, etc. These events affect management's decision and, therefore, management accounting cannot afford to ignore them. For example, change in the value of money may not find a place in financial accounting on account of "going concern concept". But while affecting an insurance policy on an asset or providing for replacement of an asset, the management will have to take into account this factor.

(v) Periodicity of reporting: The period of reporting is much longer in financial accounting as compared to management accounting. The Income

Statement and the Balance Sheet are usually prepared yearly or in some cases half-yearly. Management requires information at frequent intervals and, therefore, financial accounting fails to cater to the needs of the management. In management accounting there is more emphasis on furnishing information quickly and at comparatively short intervals as per the requirements of the management.

(vi) Precision: There is less emphasis on precision in case of management accounting as compared to financial accounting since the information is meant for internal consumption.

(vii) Nature: Financial accounting is more objective while management accounting is more subjective. This is because management accounting is fundamentally based on judgement rather than on measurement.

(viii) Legal compulsion: Financial accounting has more or less become compulsory for every business on account of the legal provisions of one or the other Act. However, a business is free to install or not to install system of management accounting.

The above points of difference between Financial Accounting and Management Accounting prove that Management Accounting has flexible approach as compared to rigid approach in the case of Financial Accounting. In brief, financial accounting simply shows how the business has moved in the past while management accounting shows how the business has to move in the future.

Self Check Exercise

(a) Define Management Accounting

(b) What are the main functions performed by a management accountant?

1.1.10 COST ACCOUNTING Vs. MANAGEMENT ACCOUNTING

Cost accounting is the process of accounting for costs. It embraces the accounting procedures relating to recording of all income and expenditure and the preparation of periodical statements and reports with the object of ascertaining and controlling costs. It is, thus, the formal mechanism by means of which the costs of products or services are ascertained and controlled. On the other hand, management accounting involves collecting, analyzing, interpreting and presenting all accounting information, which is useful to the management. It is closely associated with management control, which comprises planning, executing, measuring and evaluating the performance of an organization. Thus, management accounting draws heavily on cost data and other information derived from cost accounting. Today cost accounting is generally indistinguishable from the so-called management accounting or internal accounting because it serves multiple purposes. However, management accounting can be distinguished from cost accounting in one important respect. Management accounting has a wider scope as compared to cost accounting. Cost accounting deals primarily with cost data while management accounting involves the considerations of both cost and revenue. Management accounting is an all inclusive accounting information system, which covers financial accounting, cost accounting, and all aspects of

financial management. But it is not a substitute for other accounting functions. It involves a continuous process of reporting cost, financial and other relevant data in an analytical and informative way to management. We should not be very much concerned with boundaries of cost accounting and management accounting since they are complementary in nature. In the absence of a suitable system of cost accounting, management accountant will not be in a position to have detailed cost information and his function is bound to lose significance. On the other hand, the management accountant cannot effectively use the cost data unless it has been reported to him in a meaningful and informative form.

1.1.11 LIMITATIONS OF MANAGEMENT ACCOUNTING

Management accounting, being comparatively a new discipline, suffers from certain limitations, which limit its effectiveness. These limitations are as follows:

1. Limitations of basic records: Management accounting derives its information from financial accounting, cost accounting and other records. The strength and weakness of the management accounting, therefore, depends upon the strength and weakness of these basic records. In other words, their limitations are also the limitations of management accounting.
2. Persistent efforts : The conclusions draws by the management accountant are not executed automatically. He has to convince people at all levels. In other words, he must be an efficient salesman in selling his ideas.
3. Management accounting is only a tool : Management accounting cannot replace the management. Management accountant is only an adviser to the management. The decision regarding implementing his advice is to be taken by the management. There is always a temptation to take an easy course of arriving at decision by intuition rather than going by the advice of the management accountant.
4. Wide scope: Management accounting has a very wide scope incorporating many disciplines. It considers both monetary as well as non-monetary factors. This all brings inexactness and subjectivity in the conclusions obtained through it.
5. Top-heavy structure: The installation of management accounting system requires heavy costs on account of an elaborate organization and numerous rules and regulations. It can, therefore, be adopted only by big concerns.
6. Opposition to change: Management accounting demands a break away from traditional accounting practices. It calls for a rearrangement of the personnel and their activities, which is generally not like by the people involved.
7. Evolutionary stage: Management accounting is still in its initial stage. It has, therefore, the same impediments as a new discipline will have, e.g., fluidity of concepts, raw techniques and imperfect analytical tools. This all creates doubt about the very utility of management accounting.

1.1.12 ADVANTAGES OF MANAGEMENT ACCOUNTING

1. Increases Efficiency : Management accounting Increases Efficiency of

business operations. The targets of different departments are fixed in advance and the achievements of these goals is a tool for measuring their efficiency.

2. Proper Planning : Management is able to plan various operations with the keep of accounting Information. The technique of budgeting to helpful inforecasting various activities.
3. Measurement of Performance : The system of budgetory central and standard casting enable the measurement of performance.
4. Maximising Profitability: The thrust of various management techniques is to control cost of preduction and Increases efficiency of each & Every Individual in the organisation.
5. Improves services to customers : The cost centrol devices employed in management accounting unable the reduction of prices. All employees in the concern are made cost censcious.

1.1.13 Summary

Management accounting is a crucial instruments that assists internal decision makers in comprehending the financial health of a company allocating resources optimally and creating successful business strategies. It act as a crucial link between financial information and corporate strategic decision making

1.1.14 Glossary

Budgeting- the process of preparing detailed financial plans for the future.
Break even point- the level of sales or production where costs equal total revenue, resulting in neither a profit and loss.
ABC- Activity based costing

1.1.15 EXERCISE QUESTIONS :

1. What do you mean by management accounting? Explain giving examples.
2. What are the functions of a management accountant? Elaborate each one of them.
3. Explain the benefits of management accounting in the business sector and service sector.
4. Distinguish management accounting from financial accounting and cost accounting.
5. Explain the limitations of management accounting.
6. Write short note:
   1. What is budget ? Explain.
   2. Explain planning function of management.

1.1.16 SUGGESTED READINGS :

1. Ashish K. Bhattacharya, Principles and Practices of Cost Accounting (3rd.), New Delhi: Prentice Hall of India Private Limited, 2004.
2. Charles T. Horngren, Cost Accounting, A Managerial Emphasis, Prentice Hall Inc., 1973.
3. D. T. Decoster and E. L. Schafer, Management Accounting, New York: John Willey and Sons, 1979.
4. John G. Blocker and Wettmer W. Keith, Cost Accounting, New Delhi: Tata Mc Grw Publishing Co. Ltd., 1976.
5. R. K. Sharma and Shashi K. Gupta, Management Accounting- Principles and Practice (7th.), New Delhi: Kalyani Publishers, 1996.

1.1.17 Answers to self Check Exercise

(a) See Para 1.1.3

(b) See Para 1.1.8

LESSON NO. 1.2 AUTHOR : ASHWANI KUMAR

FINANCIAL STATEMENT ANALYSIS

LESSON STRUCTURE

1.2.1 OBJECTIVES:

The present lesson explains the discrepancy between accounting income and economic income; identify the devices used in practice to exploit the use of the bottom line; the various types of financial statements and their methodical presentation.

1.2.2 INTRODUCTION

Financial statements are an important source of information for evaluating the performance and prospects of a firm. If properly analyzed and interpreted, financial statements can provide valuable insights into a firm's performance. Analysis of financial statements is of interest to lenders (short term as well as long term), investors, security analysts, managers, and others. Financial statement analysis may be done for a variety of purposes, which may range from a simple analysis of the short-term liquidity position of the firm to a comprehensive assessment of the

strengths and weaknesses of the firm in various areas. It is helpful in assessing corporate excellence, judging creditworthiness, forecasting bond ratings, evaluating intrinsic value of equity shares, predicting bankruptcy, and assessing market risk.

1.2.3 FINANCIAL STATEMENTS

Managers, shareholders, creditors and other interested groups seek answers to the following questions about a firm: What is the financial position of firm at a given point of time? How has the firm performed financially over a given period of time? What have been the sources and uses of cash over a given period? To answer these questions, the accountant prepares two principal statements, the balance sheet and the profit and loss account, and an ancillary statement, the cash flow statement.

1.2.3.1 BALANCE SHEET

The balance sheet shows the financial condition of a business at a given point of time. As per the companies act, According to Revised schedule VI by MCA, all the Balance sheets made after 31st March, 2011 should be made invertical form, as given in Exhibit 2.1.

Exhibit 2.1 Form of Balance Sheet

Name of the Company .....
Balance sheet as at .....

(Rupee in.....)

	Particulars	Note No.	Figures as at end of current Reporting Period	Figures as at end of previous Reporting Period
I	Equitry and Liabilities			
(1)	Shareholder's funds			
	(a) share capital			
	(b) Reserves and surplus			
	(c) Money Received against share warrants			
(2)	Share Application money pending allotment			
(3)	Non current Liabilities			
	(a) Long term borrowings			
	(b) Deferrese tax Liabilities			
	(c) Other Long term Liabilities			
	(d) Long term provisions			
(4)	Current Liabilties			
II	Assets			

(1)	Non Current Assets (a) Fixed Assets (b) Tangible Assets (c) Intangible Assets (d) Capital work in Progress (e) Intangible assets under development (f) Deferred Tax Assets (net) (g) Long term Loans and (h) Other non current assets Current Assets			
(2)	(a) Current Investments (b) Inventories (c) Trade Receivables (d) Cash and Cash Equuivalents (e) Short term Loans and advances (f) Other Current Assets.			

Liabilities: Liabilities defined very broadly represent what the business entity owes others. The Companies Act classifies them as share capital, reserves and surplus, secured loans, unsecured loans, current liabilities and provisions

Share Capital: This is divided into two types: equity capital and preference capital. The first represents the contribution of equity shareholders who are the owners to the firm. Equity capital, being risk capital, carries no fixed rate of dividend. Preference capital represents the contribution of preference shareholders and the dividend rate payable on it is fixed.

Reserves and Surplus: Reserves and surplus are profits, which have been retained in the firm. There are two types of reserves: revenue reserves and capital reserves. Revenue reserves represent accumulated retained earning from the profits of normal business operations. These are held in various forms: general reserve, investment allowance reserve, capital redemption reserves, dividend equalization reserve, and so on. Capital reserves arise out gains, which are not related to normal business operations. Examples of such gains are the premium on issue of shares or gain on revaluation of assets. Surplus is the balance in the profit and loss account, which has not been appropriated to any particular reserve account. Note that reserves and surplus along with equity capital represent owners' equity or net worth.

Secured Loans: These are the borrowings of the firm against which specific collateral have been provided. The important components of secured loans are: debentures, loans from financial institutions, and loans from commercial banks.

Unsecured Loans : These are the borrowing of the firm against which no specific security has been provided. The major components of unsecured loans are: fixed deposits, loans and advances from promoters, inter-corporate borrowings, and unsecured loans from banks.

Current liabilities and Provisions: Current liabilities and provisions, as per the classification under the companies Act, consist of the amounts due to the suppliers of goods and services bought on credit, advance payments received, accrued expenses, unclaimed dividend, provisions for taxes, dividends, and so on. Current liabilities for managerial purposes (as distinct from their definition in the Companies Act) are obligations, which are expected to mature in the next twelve months. So defined, they include current liabilities and provisions as per the classification under the Companies Act plus loans (secured and unsecured) which are repayable within one year from the date of the balance sheet.

Assets: Broadly speaking, assets represent resources, which are of some value to the firm. They have been acquired at a specific monetary cost by the firm for the conduct of its operations. Assets are classified under the Companies Act as fixed assets, investments, current assets, loans and advances, miscellaneous expenditure and losses.

Fixed Assets: These assets have two characteristics: they are acquired for use over relatively long periods for carrying on the operations of the firm and they are ordinarily not meant for resale. Examples of fixed assets are land, buildings, plant, machinery, patents, and copyrights.

Investments: These are financial securities owned by the firm. Some investments represent long-term commitment of funds (usually these are the equity shares of other firms held for income and control purposes). Other investments are likely to be short term in nature such as holdings of units in mutual fund schemes and may rightly be classified under current assets for managerial purposes. (Under the requirements of the Companies Act, however, short term holding of financial securities also has to be shown under investments and not under current assets.)

Current Assets, Loans and Advances: This category consists of cash and other assets, which get converted into cash during the operating cycle of the firm. Current assets are held for a short period of time as against fixed assets, which are held for relatively longer periods. The major components of current assets are: cash, sundry debtors, inventories, loans and advances, and pre-paid expenses. Cash denotes funds readily disbursable by the firm. The bulk of it is usually in the form of bank balances and the rest is currency held by the firm. Sundry debtors (also called accounts receivable) represent the amounts owned to the firm by its customers who have bought goods and services on credit. Sundry debtors are

shown in the balance sheet at the amount owed, less an allowance for bad debts. Inventories (also called stocks) consist of raw materials, work-in-process, finished goods, and stores and spares. They are usually reported at the lower of the cost or market value. Loans and advances are the amounts loaned to employees, advances given to suppliers and contractors, advance tax paid, and deposits made with governmental and other agencies. They are shown at the actual amount. Pre-paid expenses are expenditures incurred for services to be rendered in the future. These are shown at the cost unexpired service.

Miscellaneous Expenditures and Losses: This category consists of two items: (i) miscellaneous expenditures and (ii) losses. Miscellaneous expenditures represent certain outlays such as preliminary expenses and developmental expenses, which have not been written off. From the accounting point of view, a loss represents a decrease in owners' equity. Hence, when a loss occurs, the owners' equity should be reduced by that amount. However, as per company law requirements, the share capital (representing owners' equity) cannot be reduced when a loss occurs. So the share capital is kept intact on the left hand side (the liabilities side) of the balance sheet and the loss is shown on the right hand side (the assets side) of the balance sheet.

1.2.3.2 PROFIT AND LOSS ACCOUNT

The Companies Act has prescribed a standard format for Profit and Loss account under schedule VI.

Exhibit 2.2 Format of Profit and Loss account

Name of the Company .....

Profit and Loss Statement for the year under .....

(Rupee in.....)

	Particulars	Figures as at the end of current Reporting period	Figures as at the end of previous Reporting period
I.	Revenue from operations	xx	
II.	Other Income	xx	
III.	Total Revenue (I+II)	xx	
IV.	Expenses :	xx	
	(a) Cost of Materials concumed purchases of stock in trade	xx	xx
	(b) Change in Inventories of finished goods WIP and Stock in trade	xx	xx
	(c) Employee benefit depreciation &	xx	xx

	emortization expense (d) Other Expenses Total Expenses	xx	xx
V.	ofit before Exceptional and traordinary items & tax (III-IV)	xx	xx
VI.	Exceptional Items	xx	xx
VII.	Profit before Extraorinary items and tax (V-VI)	xx	xx
VIII.	Extraordinary Items	xx	xx
IX.	Profit before Tax (VII-VIII)	xx	xx
X.	Tax Expense : (1) Current Tax (2) Deferred Tax	xx	xx
XI.	Profit for the period for continuing operations	xx	xx
XII.	Profit/(Loss) from discontinuing operations.	xx	xx
XIII.	Tax Expense of discontinuing operations	xx	xx
XIV.	Profit and Loss of Discontinuing operations (after tax)	xx	xx
XV.	Profit/(Loss) for the period	xx	xx
XVI.	Earing Perequity share (1) Basic (2) Diluted	xx	xx

1.2.4 LIMITATION OF FINANCIAL STATEMENT

1. Only Iuterim Reports : These Reports do not give final picture of the coucern. The data given in these statements is only approximate.
2. Do not give Exact position : The financial statements are expresed in monetary values, so they appear to give final and accurate position. The value of fixed assets in the balance sheet neither represents the value for which fixed assets can be sold nor the amount which will be required to replace these assets.
3. Historical cost : These are prepared on the basis of historical cost; the value of assets decreases with time current price changes are not taken into account.

4. Impact of Non Monetary Factor Ignored : These are certain factor which have bearing on the financial position and operating Results of the business but they do not become part of these statements because they cannot be measured in monetary terms.

5. Precision : Precision of data is not possible.

1.2.4 FINANCIAL STATEMENTS ANALYSIS

Financial Statements Analysis (FSA) refers to the process of the critical examination of the financial information contained in the financial statements in order to understand and make decisions regarding the operations of the firm. The FSA is basically a study of the relationship among various financial facts and figures is given in a set of financial statements. The basic financial statements i.e. the Balance Sheet and the Income Statement, already discussed in the preceding lesson contain a whole lot of historical data. The complex figures as given in these financial statements are dissected/broken up into simple and valuables elements and significant relationships are established between the elements of the same statement or different financial statements. This process of dissection, establishing relationships and interpretation thereof to understand the working and financial position of a firm is called the FSA. Thus, FSA is the process of establishing and identifying the financial weaknesses and strengths of the firm. It is indicative of two aspects of a firm i.e. the profitability and the financial position and it is what is known as the objectives of the FSA.

1.2.5.1 Objectives of the FSA:

Broadly, the objective of the FSA is to understand the information contained in financial statements with a view to know the weaknesses and strengths of the firm and to make a forecast about the future prospects of the firm and thereby enabling the financial analyst to take different decisions regarding the operations of the firm. The objectives of the FSA can be identified as:

- To assess the present profitability and operating efficiency of the firm as a whole as well as for its different departments and segments.
- To find out the relative importance of different components of the financial position of the firm.
- To identify the reasons for change in the profitability/financial position of the firm, and
- To assess the short term as well as the long term liquidity position of the firm.

1.2.5.2 Types of Financial Analysis

Financial analysis can be classified into different categories depending upon (1) the material used, and (2) the modus operandi of analysis.

1. On the Basis of Material Used: Under this category the financial analysis can be of two types: a) External Analysis; b) Internal Analysis

(a) External Analysis: The outsiders to the business carry out this kind of analysis, which includes investors, credit agencies, government agencies and other

creditors who have no access to the internal records of the company. In the recent times this analysis has gathered momentum towards better corporate governance and government regulations for more detailed disclosure of information by the companies in their financial statements.

(b) Internal Analysis: In contrary to the above this analysis is done by those who have access to the books of accounts and other information related to the business. The analysis is done depending upon the objective to be achieved through this analysis.

2. On the basis of Modus Operandi: In this case too, the financial analysis can be of two types: a) Horizontal Analysis; b) Vertical Analysis

(a) Horizontal Analysis: Under this financial statements for a number of years are reviewed and analyzed. The current year's figures are compared with standard or base year.

(b) Vertical Analysis: Under this type of analysis a study is made of the quantitative relationship of the various items in financial statements on a particular date. For example, the ratios of different items of costs for a particular period may be calculated with the sales for that period. These types of financial analysis are useful in comparing the performance of several companies in the same group, or divisions or departments in the same company.

In addition to above, the FSA for a firm can be undertaken in different ways. There is 'the best' technique of the FSA, which can be applied to all the firms under all the situations. The type of the FSA undertaken depends upon the person doing the FSA and the purpose of which the FSA has been undertaken. Different person/parties may undertake the FSA for different purposes. The persons/parties, who are usually interested in the FSA, may be the shareholders, the creditors, the financial institutions, the investors and the management itself. The FSA can be classified into different categories as follows: a) Internal and External FSA; b) Dynamic and Static FSA

(a) Internal and External FSA: The FSA is said to be internal when it is done by a person who has access to the books of the account and other related information of the firm. This type of FSA is conducted for measuring the operational and managerial efficiency at different hierarchy levels of the firm. This type of analysis is quite comprehensive and reliable. In order to undertake internal FSA, either an employee of the same firm or an outside agency may be entrusted the responsibility. External FSA, on the other hand, is one, which is conducted by an outsider without having any access to the basic accounting record of the firm. These outsiders may be the creditors, the investors, the shareholders, the credit rating agencies etc. The external FSA is dependent on the published financial data of the firm and consequently can serve only limited purpose.

(b) Dynamic and Static FSA: The FSA is said to be dynamic if it covers a period of several years. Financial data/information for different years is

incorporated in the FSA to assess the progress of the firm. This type of FSA is also called the horizontal analysis. The dynamic FSA is useful for long-term trend analysis and planning. In dynamic FSA, the figures/data for a year are placed and compared with the figures/data for several other years and changes from 1 year to another are identified. Since, the dynamic analysis covers a period of more than 1 year (may be up to 5 years or 10 years), is given a considerable insight into areas of financial weaknesses and strength of the firm. On the other hand, the static FSA covers a period of 1 year only and the analysis is made on the basis of only one set of financial statements. So, it is study in terms of information at a particular date only. It is also called vertical FSA. Impliedly, the static FSA fails to incorporate the periodic changes and therefore, may not be very conducive to a proper understanding of the financial position of the firm. It may be noted that both the dynamic and static FSA should be conducted simultaneously as both are indispensable for understanding the profitability and financial position of the firm. On the basis of the above discussion, it can be said that FSA investigative and thought provoking process in nature. The basic objective of FSA is financial planning and forecasting on the basis of meaningful interpretation of the financial information. It is forward looking exercise. Since, decisions are going to be taken on the basis of the FSA, the analyst must be careful, precise, analytical, objective and intelligent enough to undertake the FSA in a systematic way.

1.2.6 METHODELOGY OF FINANCIAL STATEMENT ANALYSIS

The Common Techniques of Financial Statement Analysis are as follows :

(a) Financial Statements : It Includes Balance sheet, Profit and was account, cashflow statements and fundflow statement analysis.

(b) Trend percentages analysis : It is a technique of studying several financial statements over a series of years. In trend percentage analysis, the trend percentages are calculated for each item by taking figure of that item for some base year as 100. So, the trend percentage is the percentage relationship which each item of different years bears to the same item in the Base year.

(c) Ratio Analysis : It shows Relationship b/w 2 Individuals.

1.2.7 Self-Exercise :-

1. What do you mean by financial statements? Explain their different types .
2. What is financial statement analysis? Explain its objectives.
3. What are the types of financial statement analysis? How an accountant in a firm can arrange them?
4. Explain the benefits of financial statement analysis to a business operating in the manufacturing sector and service sector.

1.2.8 Techniques of Financial Statement

The financial Statement Analysis can be undertaken by different persons and for different purpose, therefore, the methodology adopted for the FSA may be varying from one situation to another. However, the following are some of the common techniques of the FSA

a) Comparative financial statement
b) Common-size financial statement
c) Trend percentage Analysis
d) Ratio Analysis
e) Time series Analysis
f) Funds flow statements
g) Cash flow Statements

1.2.8.1 COMPARATIVE FINANCIAL STATEMENTS (CFS)

In CFS, two or more BS and/or the IS of a firm are presented simultaneously in columnar form. The financial data for two or more years are placed and presented in adjacent columns and thereby the financial data is provided a times perspective in order to facilitate periodic comparison. In CFS, the BS and the IS for number of years are presented in condensed form for year-to-year comparison and to exhibit the magnitude and direction of changes.

The preparation of the CFS is based on the premise that a statement covering a period of a number of years is more meaningful and significant than for a single year only, and that the financial statements for one period represent only 1 phase of the long and continuous history of the firm. Nowadays, most of the published Annual Reports of the companies provide important statistical information about the company in condensed from for the last so many years. The presentation of such data enhances the usefulness of these reports and brings out more clearly the nature and trends of changes affecting the profitability and financial position of the firm.

So, the CFS helps a financial analyst in horizontal analysis of the firm and in establishing operating and positional trend of the firm. The CFS may be prepared to show the absolute amount of different items in monetary terms, the amount of periodic changes in monetary terms and the percentages of periodic changes to reveal the proportionate changes. The CFS can be prepared for both the BS and IS.

Comparative Income Statement (CIS): A CIS shows the figures of different items of the ISs of the firm in absolute terms, the absolute changes from one period to another and if desired, the changes in percentage form. The CIS is helpful in deriving meaningful conclusions regarding changes in sales volume, cost of goods sold, different expense items etc. From the CIS a financial analyst can quickly

ascertain whether sales are increasing or decreasing and by how much amount or by how much percentage. Similarly, analysis can be made for other items also.

Comparative Balance Sheet (CBS): The CBS shows the different assets and liabilities of the firm on different dates to make comparisons of absolute balances and also of changes if any, from one date to another. The CBS may be helpful in analyzing and evaluating the financial position of the firm over a period of number of years. The preparation of CFS can be explained with the help of Example .

Example : Following are the Income Statment and Balance Sheet of ABC & Co. for the year 2003 and 2004, Prepare the CBS and CIS for these two years.

Income Statements for the year 2003 and 2004

(Figures in Rs.)

Particulars	2003	2004	Particulars	2003	2004
To Cost of good sold	300000	375000	By Net Sales	400000	500000
To General Expenses	10000	10000			
To Selling Expenses	15000	20000			
To Net Profit	75000	95000			
	400000	500000		400000	500000

Balance Sheets as on December 31

(Figures in Rs.)

Liabilities	2003	2004	Assets	2003	2004
Capital	350000	350000	Land	50000	50000
Reserves	100000	122500	Building	150000	135000
Secured Loans	50000	75000	Plant	150000	135000
Creditors	100000	137000	Furniture	50000	70000
Outstanding Expenses	50000	75000	Cash	50000	70000
			Debtors	100000	150000
			Stores	100000	150000
	650000	760000		650000	760000

Solution:

COMPARATIVE INCOME STATEMENT
FOR THE YEARS ENDING 2003 AND 2004

(Figures in Rs.)

Particular	2003	2004	Change in 2004	% change in 2004
Net Sales	400000	500000	100000	+ 25
Less cost of goods Sold	300000	375000	75000	+ 25
Gross Profit (1)	100000	125000	25000	+ 25
Less General	10000	10000	----	-----
Selling Expenses	15000	20000	5000	+ 33.3
Total Expenses (2)	15000	30000	5000	+ 20
Net Profit (1-2)	75000	95000	20000	+ 26.7

COMPARATIVE BALANCE SHEET AS ON DEC. 31

Assets	2003	2004	Change in 2004	% change in 2004
Land	50000	50000	----	----
Building	150000	135000	- 15000	- 10
Plant	150000	135000	-15000	- 10
Furniture	50000	70000	20000	+ 40
Total F. assets (1)	400000	390000	-10000	- 2.5
Cash	50000	70000	20000	40
Debtors	100000	150000	50000	50
Stock	100000	150000	50000	50
Total C. Assets (2)	250000	370000	120000	48
Liabilities				
Creditors	100000	137500	37500	37.5
O/s Expenses	50000	75000	25000	50
Total Liabilities (3)	150000	212500	62500	41.7
Net Working Capital (2 - 3)	100000	157500	57500	57.5
Total Assets (1+2)	650000	760000	110000	16.9
Capital	350000	350000	-------	------
Reserves	100000	122500	22500	22.5
Proprietor's Fund (4)	450000	472500	22500	5

Secured Loans (5)	50000	75000	25000	50
Capital Employed (4+5)	500000	547500	47500	9.5
Total Assets (1+2)	650000	760000	110000	16.9
Cap.+ Total Liabilities (3+4+5)	650000	760000	110000	16.9

Interpretation: On the basis of CIS it can be said that Gross Profit for the year 2004 has increased by 25% over the profit for the year 2003. The Net Sales during the same period has increased by 25%, which was coupled with increase in the cost of goods sold which also increased by same 25%. This means that Input/Output ratio or the production efficiency level has been maintained during 2004. The same increase of 25% in Net Sales and the Cost of goods sold has resulted in increase in Gross Profit by 25%. The increase in Net Profit is more pronounced i.e. by 26.7%. The reason for a higher increase in Net Profit is the comparatively less increase in total expenses (only 20%). The General Expenses during 2003 and 2004 were same but the increase in Selling Expenses by 33 1/3% has resulted increase of total expenses by 20%. The CBS also reveals many facts about the composition of assets and the financial structure of the firm. The Fixed Assets have decreased over the period by 2.5%, though this decrease has primarily resulted by the amount of depreciation @ 10% on Buildings and Plant. However, the Current Assets have increased by 48%, this increase of 48% is too much in view of increase in Net Sales by 25% only. Moreover, the Current Liabilities have increased by 41.7%. Since the increase in Current Assets is more than increase is Current Liabilities, therefore the Net Working Capital has increased by 57.5%. The clearly indicates that the Working Capital of the firm is not properly managed and the increase in current assets restricted to 25% or the increase in current liabilities was also achieved at 48% or so, then the situation would not have been so alarming. However, the decrease in fixed assets has been offset by increase in Net Working Capital and consequently the total assets have increased by 16.9%. The firm has not raised any capital during the period and the increase in proprietor's funds has resulted because of increase in retained profits by Rs. 22,500. The Secured Loans have also increased by 50%. The funds provided by the retained earnings and the secured loans seem to have been utilized in financing the current assets. This has, on one hand increased the short term paying capacity of the firm and on the other hand, will affect the earning capacity of the firm as the current assets are less or non productive. The increase in total assets by 16.9% is matched with the increase in total liabilities (proprietor's fund plus the secured loans)) by 16.9%. So, the CFS

explains about the changes in different items of the financial statements. However, despite this revelation, the CFS fails to highlight the component changes in relation to total assets or total liabilities. The CFS does not throw light on the variations in each asset as a percentage of total assets for a particular period or changes in different liabilities in relation to total liabilities for that period etc. This drawback of CFS is taken care of by the Common Size Statement.

1.2.8.2 COMMON SIZE STATEMENT (CSS)

The CSS represents the relationship of different items of a financial statement with some Common item by expressing each item as a percentage of the Common item. In Common size Balance Sheet, each item of the Balance Sheet is stated as a percentage of the total of the Balance Sheet. Similarly in Common size Income Statement, each item is stated as percentage of the Net Sales. The percentages for different items are computed by dividing the absolute amount of that item by the Common base (i.e. the Balance Sheet Total or the Net Sales as the case may be) and then multiplying by 100. The percentage so calculated can be easily compared with the corresponding percentages in some other period. Thus, the CSS is useful not only in intra-firm comparisons over a series of different year but also in making inter-firm comparisons for the same year or for several years. The procedure and the technique of preparation of the CSS can be explained with the help of Example 2.2.

Example

With the use of data given in the earlier Example on page no.3 prepare the Common Size BS and Common Size IS for the years 2003 & 2004.

Solution:

COMMON SIZE BALANCE SHEET

	Amount (Rs.)		Percentages	
Assets	2003	2004	2003	2004
Land	50000	50000	7.70	6.59
Building	150000	135000	23.07	17.76
Plant	150000	135000	23.07	17.76
Furniture	50000	70000	7.70	9.21
Total Fixed Assets (1)	400000	390000	61.54	51.32
Cash	50000	70000	7.70	9.20
Debtors	100000	150000	15.38	19.74
Stock	100000	150000	15.38	19.74
Total C. Assets (2)	250000	370000	38.46	48.68

Total Assets (1+2)	650000	760000	100	100
Liabilities				
Capital	350000	350000	53.85	46.05
Reserves	100000	122500	15.38	16.12
Proprietor's Fund (3)	450000	472500	69.23	62.17
Secured Loan	50000	75000	7.70	9.87
Creditor	100000	137500	15.37	18.09
O/s Expenses	50000	75000	7.70	9.87
Total Liabilities (4)	200000	287500	30.77	37.83
Total Capital + Liabilities (3+4)	650000	760000	100	100

COMMON SIZE INCOME STATEMENT

	Amount (Rs.)		Percentages	
	2003	2004	2003	2004
Net Sales	400000	500000	100.0	100.0
Less : Cost of goods sold	300000	375000	75.0	75.0
Gross Profit (1)	100000	125000	25.0	25.0
Less : General Expenses	10000	10000	2.5	2.0
Selling Expenses	15000	20000	3.75	4.0
Total Op. Expenses(2)	25000	30000	6.25	6.0
Net Profit (1-2)	75000	95000	18.75	19.00

Interpretation: The Common size Balance Sheet and the Common Size Income Statement reveal that proportion of fixed assets out of total assets has reduced from 61.54% to 51.32% whereas the proportion of reliance of the firm on the current assets. Similarly, out the total liabilities the proportion of the proprietor's funds has reduced from 69.23% to 62.17% and the proportion of external liabilities has increased from 30.77% to 37.83%. Since, no new capital has been issued and the other liabilities have increased, the proportion of capital in the total financing of the firm has gone down from 53.85% to 46.05%.

Further, the Cost of goods sold as well as the Gross Profit has remained pegged at 75% and 25% of Net Sales. However, the Net Profit has increased from 18.75% to 19% of Net Sales. This is due to decrease in operating expenses from 6.25% to 6% of the Net Sales.

It can be observed that the CSS can be used for analyzing and comparing the financial position of a firm for two different periods or between two firms for the

same year. This comparability was not available in the CFS because of difference in firms' sizes or in different years. Of course, in order to make the CSS more meaningful, the analyst should ensure that accounting policies of different firms being compared or for different year are unchanged or not significantly different.

The CSS can be easily used for analyzing and for some real insight into operational and financial position of the firm over a period of different years. However, it may become difficult and cumbersome if the period to be covered is more than two years. The CSS does not show the variations in different items from one period to another. In horizontal analysis, the CSS may not provide sufficient information about the changing pattern or trend of different items over years. In such a situation, the Trend Percentage Analysis can be of immense help.

1.2.8.3 TREND PERCENTAGE ANALYSIS (TPA)

The Trend Percentage Analysis is a technique of studying several financial statements over a series of years. In Trend Percentage Analysis, the trend percentages are calculated for each item by taking the figure of that item for some base year as 100. So, the trend percentage is the percentage relationship, which each item of different years bears to the same item in the base year. Any year may be taken as the base year. Any year may be taken as the base year, but generally the starting/initial year is taken as the base year. So, each item for base year is taken as 100 and then the same item for other years is expressed as a percentage of the base year. The TPA which can be used both for the BS as well as the IS has been explained with the help of Example .

Example: From the following data relating to the ABC & Co. for the year 2001 to 2004, calculate the trend percentages (taking 2001 as base year).

(Figure in Rs.)

Particulars	2001	2002	2003	2004
Net Sales	200000	190000	240000	260000
Less: Cost of goods sold	120000	117800	139200	145600
Gross Profit	80000	72200	100800	114400
Less: Expenses	20000	19400	22000	24000
Net Profit	60000	52800	78800	90400

Trend percentages

Particulars	2001	2002	2003	2004
Net Sales	100	95.0	120.0	130.0
Less: Cost of goods sold	100	9.2	115.8	121.3
Gross Profit	100	90.3	126.0	143.0
Less: Expenses	100	97.0	110.0	120.0
Net Profit	100	88.0	131.3	150.6

Interpretation: On the whole, the 2002 was a bad year but the recovery was made during 2003 with increase in volume as well as profits. The figures of 2002 when compared with 2001 reveal that the Sales have reduced by 5%, but the cost of goods sold and the Expenses have decreased only by 1.8% and 3% respectively. This resulted in decrease in Net Profit by 12%. The position was recovered in 2003 and not only the decline was arrested but the positive growth was also visible both in 2003 and 2004. Again, the increase in Net Profit by 31.3% (2003) and 50.6% (2004) is much more than the increased in sales by 20% and 30% respectively. This again testifies that a substantial portion of the cost of goods sold and expenses is of fixed nature. So, the TPA is an important tool of historical analysis. It can be of immense help in making a comparative analysis over a series of years. The TPA provides brevity and easy readability to several financial statements as the percentages figures disclose more than the absolute figures. However, some precautions must be taken while using the TPA as a technique of the AFS as follows:

There should not be a significant and material change in accounting policies over the years. This consistency is necessary to ensure meaningful comparability.

i. Proper care must be taken while selecting the base year. It must be a normal and a representative year. Generally the initial year is taken as base year, but intervening year can also be taken as the base year, if the initial year is not found to be normal year.
ii. The trend percentages should be analyzed vis-à-vis the absolute figure to avoid any misleading conclusions.
iii. If possible, the figures for different year should be adjusted for variations in price level also. For example, increase in Net Sales by 30% (from 100 in 2001 to 130 in 2004) over 3 years might have resulted primarily because of increase in selling price and not because of increase in volume.

Quite often, it may be difficult to interpret the increase or decrease in any item (in absolute terms or in percentages terms) as a desirable change or an undesirable change. For example, decrease in cash may be discouraging if it is going to affect the liquidity but may be encouraging if it has resulted out of better cash management. Similarly, increase in inventory may result because of decrease in sales or because of necessity to maintain a minimum level of stock. In such cases, therefore, the techniques of CFS, CSS and the TPA may not be of much help. Financial analysts have developed another technique called the Ratio Analysis, which is presumably the most common and widely used technique of the FSA.

1.2.8.4 RATIO ANALYSIS (RA)

The Ratio Analysis has emerged as the principal technique of the FSA. A ratio is a relationship expressed in mathematical terms between two individual or groups of figures connected with each other in some logical manner. The RA is based on the premise that a single accounting figure by itself may not communicate any meaningful information but when expressed as a relative to some other figure, it may definitely give some significant information. The relationship between two or more accounting figures/groups is called a financial ratio. A financial ratio helps to summarize a large mass of financial data into a concise form and to make meaningful interpretations and conclusions about the performance and positions of a firm. For example, a firm having Net Sales of Rs.5, 00,000 is making a gross profit of Rs.1, 00,000. It means that the ratio of the Gross Profit to Net Sales is 20% i.e. (Rs.1, 00,000/Rs.5, 00,000) x 100.

Steps in Ratio Analysis: The RA requires two steps as follows:

i. Calculation of a ratio (as discussed later), and
ii. Comparing the ratio with some predetermined standard. The standard ratio may be the past ratio of the same firm or industry's average ratio or a projected ratio or the ratio of the most successful firm in the industry. In interpreting the ratio is compared with some predetermined standard. The importance of a correct standard is obvious as the conclusion is going to be based on the standard itself.

Types of comparisons: As already stated that the RA comprised of two steps i.e. the calculation and thereafter the comparison with some standard. The calculation part (as discussed later) of a ratio merely involves the application of a formula to the given financial data to establish the mathematical relationship. The comparison is the next steps. The ratio can be compared in three different ways.

Cross-Section Analysis: One way of comparing the ratio or ratios of a firm is to compare them with the ratio or ratios of some other selected firm in the same industry at the same point of time. So, it involves the comparison of two or more

firm's financial ratios at the same point of time. The Cross-Section Analysis helps the analyst to find out as to how a particular firm has performed in relation to it competitors. The firm's performance may be compared with the performance of the leader in the industry in order to uncover the major operational inefficiencies. In this type of an analysis, the comparison with a standard helps to find out the quantum as well as direction of deviation from the standard. It is necessary to look for the large deviations on either side of the standard could mean a major concern for attention. The Cross-Section Analysis is easy to be undertaken as most of the data required for this may be available in financial statements of the firm.

1.2.8.5 Time-Series Analysis

The analysis is called Time-Series Analysis when the performance of a firm is evaluated over a period of time. By comparing the present performance of a firm with the performance of the same firm over last few years, an assessment can be made about the trend in progress of the firm, about the direction of progress of the firm. The information generated by the Time-Series Analysis can also help the firm to assess whether the firm is approaching long term goals or not. The Time-Series Analysis can be extended to cover projected financial statements. In particular, the Time Series Analysis looks for (i) Important trends in financial performance, (ii) Shift in trend over the years, and (iii) Significant deviations if any, from the other set of data.

Combined Analysis: If the Cross-Section and Time Series Analyses, both are combined together to study the behavior and pattern of ratios, then meaningful and comprehensive evaluation of the performance of the firm can definitely be made. A trend of ratios of a firm compared with the trends of the ratios of the standard firm can give good results. For example, the ratio of Operating expenses to Net Sales for a firm, may be higher than the industry average, however, over the years it has been declining for the firm, whereas the industry average has not shown any significant changes. (This topic is covered in detail in the chapters to follow)

1.2.9 Summary

In order to evaluate a company's financial performance pinpoint strengths and shortcomings and make wise financing or investment decision financial statement analysis is an essential tool. To give a thorough review of a company's financial health and potential hazards it combines quantitative and qualitative methodologies.

1.2.10 Glossary

Financial statement – reports that provide a summary of a company's financial transactions performance and position

DU point analysis – a method of decomposing the return on equity to understand the underlying factors that influence a company's profitability.

1.2.11 EXERCISE QUESTIONS :

1. What do you mean by financial statements? Explain their different types .
2. What is financial statement analysis? Explain its objectives.
3. What are the types of financial statement analysis? How an accountant in a firm can arrange them?

4. Explain the benefits of financial statement analysis to a business operating in the manufacturing sector and service sector.
5. Explain the various techniques applied for carrying out the financial statement analysis.
6. Write short note on:
    1. Trend Percentile Analysis
    2. Unsecured loan.

1.2.12 SUGGESTED READINGS:

1. Ashish K. Bhattacharya, Principles and Practices of Cost Accounting (3rd.), New Delhi: Prentice Hall of India Private Limited, 2004.
2. Charles T. Horngren, Cost Accounting, A Managerial Emphasis, Prentice Hall Inc., 1973.
3. D. T. Decoster and E. L. Schafer, Management Accounting, New York: John Willey and Sons, 1979.
4. John G. Blocker and Wettmer W. Keith, Cost Accounting, New Delhi: Tata Mc Grw Publishing Co. Ltd., 1976.
5. R. K. Sharma and Shashi K. Gupta, Management Accounting-Principles and Practice (7th.), New Delhi: Kalyani Publishers, 1996.

LESSON NO. 1.3 AUTHOR: ASHWANI KUMAR

FUNDS FLOW STATEMENT

LESSON STRUCTURE

1.3.1 OBJECTIVES:

After readings this chapter you will be able to: prepare a statement of changes in working capital; make out a statement of sources and application of funds; and understand that why non-cash transactions do not affect funds.

1.3.2 INTRODUCTION

The balance sheet and income statement are the traditional basic financial statements of a business enterprise. Balance sheet gives the summary of the firm's resources and obligations at a point of time; profit & loss account reflects the results of the business operations by summarizing revenue and expenses during a period of time. While they do furnish useful financial data regarding operations, a serious limitation of these statements is that they do not provide information regarding changes in the firm's financial position during particular period of time. They fail to provide the information regarding causes of changes or the movements of finances between two-time period or determine the various causes that lead changes in financial position of a concern.

Therefore, an additional statement should be prepared to show the changes in assets, liabilities and owner's equity between dates of two balance sheets. Such a statement referred to as the statement of changes in financial positions. The statement of changes in financial position overcomes these limitations of basic financial statements. The most commonly used forms of the statement of changes

in financial position are called the Funds Flow Statement and the Cash Flow Statement. Present chapter is oriented on the concept of Funds Flow Statement.

1.3.3 MEANING & DEFINITIONS

The Funds Flow Statement is combination of three words Funds, Flow and Statement.

Funds mean working capital. There are mainly two concepts regarding the meaning of the working capital. First, the broad concept according to which working capital refers to the gross working capital and represents the amount of funds invested in current assets. Thus, the gross working capital is the capital investment in total current assets of the enterprise. Current assets are those assets, which in the ordinary course of business can be converted into cash within a short period of time normally one accounting year. Second, the narrow sense, which termed working capital as the excess of current asset over current liabilities or that part of the current assets, which is financed by the long-term source of finance. In case of the Funds Flow Statement we will use the narrow concept of the working capital.

Flow means movement. If we take the flow of funds it means changes in the position of the funds due to any transaction. As a result of the transaction the funds may increase or decrease. The increase in funds is called funds inflow and if funds decrease, it is called funds outflow. The one important point to be noted here is that the flow of funds only occurs when a transaction affects on the one hand a non current account and on the other a current account and vice-versa. If a transaction only two current account or only two non-current accounts then flow of funds does not take place because here funds means the difference of the current assets and current liabilities.

Statement means the written description about some thing or a detail note, which provide the informations. The Funds Flow Statement means a summary of the sources and uses of the working capital.

DEFINITIONS:

“A statement of sources and application of funds is a technical device designed to analyze the changes in the financial condition of a business enterprise between two dates.”Foulke

According to I.C.W.A. “Funds Flow Statement is a statement either prospective or retrospective, setting out the sources and applications of the fund of an enterprise. The purpose of the statement is to indicate clearly the requirement of funds and how they are proposed to be raised and the efficient utilization and application of the same.”

Anthony defines the Funds Flow Statement as the sources from which additional funds were derived and the use to which these sources were put.

Thus, Funds Flow Statement is a statement, which indicates various means by which the funds have been obtained during a certain period and the ways to which these funds have been used during that period.

1.3.4 OBJECTIVES OF FUNDS FLOW STATEMENT

As it is clear form the above discussion the main objective of the Funds Flow Statement is to know the sources and applications of the funds within a specific time period. Some other questions are also there which can be sorted out by the help of Funds Flow Statement. These questions are:

- What happened to the net profit? Where did they go?
- How the higher dividend can be paid in case of shortage of funds?
- What are causes of the shortage of fund in spite of higher profit?
- How the fixed assets have been financed?
- How the obligations are fulfilled?
- How was the increase in working capital financed and how it will be financed in future?

1.3.5 IMPORTANCE OF FUNDS FLOW STATEMENT

Importance of funds flow statement is as follows:

1. Provide the information regarding changes in funds position

Funds Flow Statement provides the infomations regarding the funds, from where they have procured and where they have invested meanwhile two specific dates.

2. It helps in the formation of future dividend policy

Sometimes a firm has sufficient profit available for distribution as dividend but yet it may not be advisable to distribute dividend for lack of liquid or cash resources. In such cases, funds flow statement helps in the formation of a realistic dividend policy.

3. It helps in proper allocation of resources

The resources of a concern are always limited and it wants to make the best use of these resources. A projected funds flow statement constructed for the future helps in making managerial decisions. The firm can plan the deployment of its resources and allocate them among various applications.

4. It act as future guide

A projected funds flow statement also acts as a guide for future to the management. The management can come to know the various problems it is going to face in near future for want of funds. The firm's future needs of funds can be projected well in advance and also the timing of these needs. The form can arrange to finance these needs more effectively and avoid future problems.

5. It helps in appraising the use of working capital

It helps to appraise the performance of a financial manager in utilization of the working capital and also suggested the right way to use the working capital efficiently.

6. It helps to the overall credit worthiness of a firm

The financial institutions and banks such as SFI, IDBI, IFCI etc. all ask for funds flow statement constructed for a number of years before granting loans to know the creditworthiness and paying capacity of the firm. Hence, a firm seeking financial assistance firm these institutions has no alternative but to prepare funds flow statements.

7. It helps to know about the utilization of the sources

It also provides the information to the managers and the another interested parties that the sources they have collected or provided where they have allocated.

1.3.6 LIMITATIONS

The funds flow statement also suffers from some of the limitations, which are as follows:

1. Prepared from the final statements: The funds flow statement is prepared with the help of final statements. So all the limitations of the final statements are inherent in it.

2. Only rearrangement: The funds flow statement is only the rearrangement of the data provided by the final statements so this is not providing the actual figure and facts.

3. Past oriented: The funds flow statements provides only the historical information. They are not guiding about the future.

4. Working capital oriented: It concentrates on the concept of the working capital and show the position of the working capital in the concern while changes in cash are more important and relevant for financial management than the working capital.

5. Periodic in nature: It only reveals the changes in the working capital position in the concern between to specific dates. It cannot reveal continuous changes.

6. Not a substitute: It is not a substitute of an income statement or a balance sheet, it provide only some additional information as regards changes in working capital.

1.3.7 PROCEDURE FOR PREPARING FUNDS FLOW STATEMENT

Funds flow statement can be prepared by comparing two balance sheets and other information derived from various accounts as may be needed. While preparing the funds flow statement mainly two statements are prepared:

(1) Schedule of Changes in Working Capital
(2) Funds Flow Statement

1.3.7.1 SCHEDULE OF CHANGES IN WORKING CAPITAL

As earlier stated, here we are using the narrow concept of the working capital it means working capital means the surplus of current assets over current liabilities. This statement is made to recognize the changes in the amount of working capital among the dates of two balance sheets. This statement is prepared by deriving the values of current assets and current liabilities from the balance sheet. Current assets are those assets, which can be converted into cash into a short time period in the ordinary course of the business. Similarly current liability means those obligations, which are to be fulfilled in a short time period, generally a financial year.

The schedule of changes in working capital can be prepared by comparing the balance sheets of two dates. Firstly we have to recognize the current assets and current liabilities of the concern and then compare them between two dates if the current assets of current year are more than the previous year that is recognized as an increase in working capital or vice-versa. On the other hand if current liabilities of current year is more than the previous year it will recognize as decrease in working capital or vice-versa because Working Capital = Current Assets – Current Liabilities.

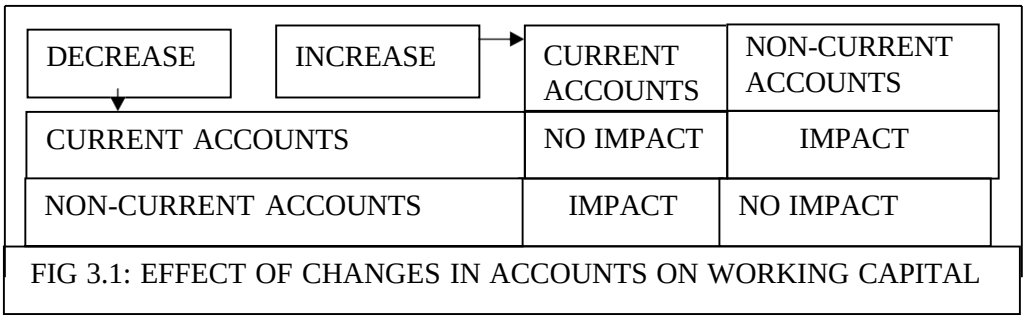

FIG 3.1: EFFECT OF CHANGES IN ACCOUNTS ON WORKING CAPITAL

Figure 3.1 shows that if two current accounts increases and decreases simultaneously it puts no effect on the working capital but if any transaction affects

a current account or a non-current account it affects the position of the working capital of concern.

The Performa of the Schedule of Changes in Working Capital is as follows.

Statement of Changes in Working Capital				
			Changes in Working Capital	
Particulars	Previous Year	Current Year	Increase	Decrease
Current Assets:				
Cash in Hand				
Cash at Bank				
Sundry Debtors				
Temporary Investment				
Stock/Inventories				
Prepaid Expenses				
Accrued Income				
Total Current Assets				
Current Liabilities:				
Bills Payable				
Sundry Creditors				
Outstanding Expenses				
Bank Overdraft				
Short-term Advances				
Dividend Payable				
Proposed Dividend*				
Provision for Taxation*				
Total Current Liabilities				
Working Capital (CA-CL)				
Net Increase/Decrease				
Working Capital				

* Proposed dividend and Provision for taxation may be considered as current liabilities or long-term liabilities. If they are considered as current liabilities then these will be shown in Statement of changes in working capital.

Illustration 4.1: Prepare a Statement of change in working capital from the following Balance Sheet of Rohan Steel Co.

Balance Sheet of Rohan Steel Ltd. as on 31st Dec.					
Liabilities	2003	2004	Assets	2003	2004
Creditors	15,000	18,000	Cash	11,200	8,500
Bills Payable	10,000	7,500	Debtors	21,300	23,500
Loan on Mortgage	40,000	40,000	Stock	35,000	30,600
			Sinking Fund		
Capital	50,000	45,000	Investment	16,000	12,000
Sinking Fund	16,000	12,000	Land	10,000	10,000
Profit & Loss a/c	13,950	16,275	Building	60,000	60,000
Provision for Doubtful			Furniture &		
Debts	1,350	1,425	Fixture	8,000	7,000
Depreciation Fund	15200	11400			
	1,61,500	1,51,600		1,61,500	1,51,600

Solution:

Schedule in Changes in Working Capital				
	2003	2004	Changes in Working	
			Increase	Decrease
Current Assets:				
Cash	11,200	8,500	2,700	
Debtors less provision	19,950	22,075		2,125
Stock	35,000	30,600	4,400	
Total	66,150	61,175		
Current Liabilities				
Creditors	15,000	18,000	3,000	
Bills Payable	10,000	7,500		2,500
Total	25,000	25,500	10,100	4,625
Working Capital (CA-CL)	41,150	35,675		
Increase in Working Capital		5,475		5,475
	41,150	41,150	10,100	10,100

1.3.7.2 FUNDS FLOW STATEMENT

Funds flow statement is a statement, which shows the sources and application of the funds during a particular time period. This statement shows that during that period from where the funds have been procured and where have been invested. This statement can be prepared in two forms:

(1) Report Form

(2) T Form or Account Form

Specimens of the both of the form are as follows:

Specimen of T Form of Funds Flow Statement (for the year ended.....)			
Sources of Funds	Amount	Applications of Funds	Amount
Funds from operations Issue of Share Capital Raising of Long term Loans Receipts from partly paid shares Sales of non-current assets Non-trading receipts Sale of Investment Decrease in working capital		Funds Lost in Operations Redemption of Preference Share Redemption of Debentures Repayment of Long-term loan Purchase of non-current assets Non-trading payments Payment of Dividend* Payment of Tax* Increase in working capital	

*Note Payment of dividend and tax will appear as an application of the funds only when these items are considered as non-current item. If no thing is specified in question then that depends on the discretion of the student how to treat these items.

Specimen of Report Form of Funds Flow Statement	
Sources of Funds	Amount
Funds from operations	
Issue of Share Capital	
Raising of Long term Loans	
Receipts from partly paid shares	
Sales of non-current assets	
Non-trading receipts	
Sale of Investment	
Decrease in working capital	
Total	
Applications of Funds	

Funds Lost in Operations	
Redemption of Preference Share	
Redemption of Debentures	
Repayment of Long-term loan	
Purchase of non-current assets	
Non-trading payments	
Payment of Dividend	
Payment of Tax	
Increase in working capital	
Total	

Let us put a light on the items of the Funds Flow Statement.

Sources of the Funds

Under this heading we will show all the sources of the funds from where the funds are procured. These sources can be classified in two categories.

(1) Internal Source
(2) External Source

1. Internal Source: Funds from Operations is only single internal source of funds. Funds from operations means the funds obtained by the general business of the organization. It is equal to the difference of revenue obtained by the sale of goods and the total cost of manufacturing them. As example if a businessman is selling 1000 units of a good @ Rs. 7 per unit and the direct and indirect expenses incurred on the production of a unit is Rs. 5 per unit. Then funds from operations will be 1000 X 7 – 1000 X 5 = Rs. 2000. During the calculation of funds from operations following things should be considered.

The profit or loss shown by the Profit & Loss a/c is not always equal to the funds from operations because in the some non-cash items are included in the Profit & Loss a/c, which does not affect the working capital such as Depreciation and amortization or written off Preliminary Expenses, Discount on Debentures, goodwill, Patent Rights, Advertisement Expenses, Underwriting Commission etc. All the expenses, which do not affect the position of the funds, should be added back in the profit.

With the non cash expenses some exceptional items are also there which are not concerning with the operations of the business such as profit or loss arise from the sale of fixed assets and investment and non business incomes such as dividend received, interest received, rent received, refund of income tax and appreciation in the value of fixed assets etc. These items should be deducted from the profit to calculate the funds from operations. There are two methods to prepare the funds from operations, which are as follows:

(A) The First method is to proceed from the figure of net profit or net loss as arrived at from the profit and loss account already prepared. Funds from operations by this method can be calculated as below.

Calculations if Funds from Operations

Closing balance of P &L A/c or Retained Earning

Add: Non fund and Non operating items which have been already debited in P &L A/c

(1) Depreciation and Depletion
(2) Amortization of fictitious or intangible assets such as:
    (i) Goodwill
    (ii) Patents
    (iii) Trade Mark
    (iv) Preliminary Exp.
    (v) Discount in Issue of Shares Etc.
(3) Appropriation of Retained Earning such as:
    (i) Transfer to General Reserve
    (ii) Dividend Equalization Fund
    (iii) Transfer to Sinking Fund
    (iv) Contingency Reserve etc.
(4) Loss on Sale of any Non Current assets such as:
    (i) Loss on sale of Land and Building
    (ii) Loss on sale of Machinery
    (iii) Loss on sale of Furniture
    (iv) Loss on sale of Long term Investment
(5) Dividend including
    (i) Interim Dividend
    (ii) Proposed Dividend (if it is an appropriation of profit and not taken as current liability)
(6) Provision for Taxation (if not taken as current liability)
(7) Any other non-fund/non-operating item which have been debited to P/L A/c

Total (A)

Less: Non fund and Non operating items which have been already Credited in P &L A/c

(1) Appreciation in the value of fixed assets
(2) Dividend Received
(3) Excess provision retransferred to P/L A/c or written off Profit and gain from the sale of non-current assets such as:
    (i) Profit on sale of Land and Building
    (ii) Profit on sale of Plant & Machinery
    (iii)Profit on sale of Long Term Investment etc.
(4) Any other non-fund and non-operating item which has been credited to P/L A/c
(5) Opening balance of P & L A/c or Retained Earning

Total (B)

Total (A) – Total (B) = Funds from Operations

B) The second method is to prepare the Profit & Loss account afresh by taking into consideration only funds and operational items, which involves funds and are related to the normal operations of the business. The balancing figure in this case will be either funds from operation or funds lost in operations depending upon whether income or credit side of profit and loss a/c exceeds the expenses or debit side of the profit and loss a/c or vice-versa.

Funds from operations can also be calculated by preparing Adjusted Profit & Loss A/c

Adjusted Profit and Loss Account			
Particulars	Amount	Particulars	Amount
To Depreciation & Depletion		By Opening Balance of P & L A/c	
To Appropriation of retained earnings		By Transfer from excess provisions	
To Loss on sale of fixed assets		By Appreciation in the value of fixed assets	
To Dividend		By Dividend received	
To Proposed Dividend		By Profit on the sale of fixed assets	
To Provision for Taxation		By Funds from Operations	
To Closing Balance of P & L A/c			
To Funds lost in Operations (B/F)			

Let us take an example of the funds from operations.

Illustration : Following are Balance Sheet of a Limited Co. as on 31st Dec.2003 and 2004.

Balance Sheet					
Liabilities	2003	2004	Assets	2003	2004
Share Capital	61,000	74,000	Plant	45,000	43,000
Reserves	13,000	15,500	Building	50,950	48,000
Creditors	28,000	24,000	Stock	20,500	18,800
Bank Overdraft	18,000		Debtors	20,000	16,200
Provision for Taxation	8,000	8,500	Cash	150	180
Profit & Loss A/c	8,600	8,800	Cash at Bank		2,100
			Goodwill		2,520
	1,36,600	1,30,800		1,36,600	1,30,800

Taking into account the following information, calculate funds from operations: -

(1) Interim Dividend was paid Rs.2,000.

(2) Dividend proposed for Rs. 4,000.

(3) Provision of Rs.9,000 was made for Income Tax.
(4) Rs. 2000 was written off as depreciation on Plant and Rs.2,950 on Building.
(5) Profit on Sale of Fixed Investment Rs. 1,500.

Solution:

Calculation of net profit for 2003

	Rs.	Rs.
Credit balance of P & L A/c on 31Dec. 2003		8,800
Less: Credit Balance of P& LA/c on 31Dec.2002		8,600
		200
Add:		
Interim Dividend	2,000	
Proposed Dividend	4,000	
Provision made for Income Tax	9,000	
Provision Made for Reserve	2,500	17,500
Net Profit During the Year		17,700

Calculation of Funds From Operations

Net Profit During the Year		17,700
Add: Depreciation on Building	2,950	
Depreciation on Plant	2,000	4,950
		22,650
Less: Profit on sale of Fixed Investment		1,500
Profit from Business Operations		21,150

An alternative method for calculation of Funds from operations is as follows:

Adjusted Profit and Loss A/c			
To Interim Dividend	2,000	By Opening Balance	8,600
To Proposed Dividend	4,000	By Profit on Sale of Investment	1,500
To Provision for Income Tax	9,000	By Profit From Business Operations	21,150
To Provision for Reserve	2,500	(Balancing Figure)	
To Plant A/c(Depreciation)	2,000		
To Building A/c (Depreciation)	2,950		
To Closing Balance	8,800		
	31,250		31,250

2. External Source: These sources include:

(i) Issue of Share Capital: One of the source of collection of the funds is issuance of the new share that may be preference share issue or equity share issue. Not only the new issue but also the call made on the partly paid share is also considered as the source of the funds because it generates inflow of funds. The premium charged on the time of issue is also considered, as inflow of funds and similarly the adjustment for the discount provided on the time of issue should be made. If the shares are issued in respect of another consideration rather than cash then it will not be considered as a source of funds.

(ii) Issue of Debentures and Raising of Loans: Just like the shares issue of debenture and raising of loans are also a source of funds and the same adjustment regarding the premium and discount should be made as in case of the issuance of the share.

(iii) Sale of the Fixed Assets and Long-term Investments: One can increase the funds in the concern by selling their investment they have made in different alternatives and in fixed assets just like plant, machinery, building etc. but one thing that should be remembered that if the assets are exchanged with rather than cash that will not a source of funds.

(iv) Non-Trading Receipts: Any non-trading receipts just as rent received, interest received, dividend received and refund of tax or any another non-operating income generates the inflow of cash will be treated as source of funds.

(v) Decrease in Working Capital: If the working capital decreases in comparison of previous year in the release of funds from the working capital so that will be termed as source of funds.

Application or Uses of Funds

The other side of the funds flow statement is application of funds that side shows how the funds procured from different sources are allocated or used. There may be following uses or applications of the funds:

(1) Funds lost in Operations: Sometimes the result of trading in a certain year is a loss and some funds are lost during that trading period. Such loss of funds means outflow of funds so that item if treated as an application of funds.

(2) Redemption of the Preference Share Capital: A company can't redeem its equity share within its life time but can redeem their preference share as the result of redemption of preference share an outflow of funds takes place. So the redemption of the shares is written in the application side of the funds flow statement. One thing should be remembered is that the premium provided on the redemption will also considered as an application.

(3) Repayment of Loans & Redemption of Debentures: As share the repayment of loans and redemption of debenture also leads a outflow of cash so these items are also treated as application of the funds.

(4) Purchase of any Non-current or Fixed Asset: If the businessman purchases any fixed asset or making investment for the long time period that will also generate a outflow of funds and treated as an application of funds. But if the fixed asset is purchased in exchange of any other consideration rather than cash that will not treated as application of funds.

(5) Payment of Dividend & Tax: Payment of dividend and tax are also applications if funds. It is the actual payment of dividend and tax, which should be taken as an outflow of funds and not the mere declaration of the dividend or creation of a provision for taxation.

(6) Any other Non-trading Payment: Any payment or expenses not related to the trading operations of the business amounts to outflow and is taken as an application of funds. The examples could be drawing in case of sole trader or partnership firm, loss of cash.

Self Check Exercise

(a) Define Funds
(b) Give various sources of funds
(c) Give various uses of funds

1.3.8 PARTIES INTERESTED IN FUNDS FLOW STATEMENT

Funds flow statement is useful for different parties interested in the business. They include owner or shareholder, financial institutions, employees etc.

1. Owners or Shareholders: Owners and Shareholders are interested in ascertaining the financial position of the concern. Funds flow statement helps them to find out:

(i) Whether the business has enough funds to pay dividend at reasonable rates?
(ii) Whether the business is in a position to meet its present liabilities in time?
(iii) Whether the management is making effective use of funds at their disposal?

2. Financial Institutions: The financial institutions are interested in the safety of their funds. A careful analysis of the fund flow statement will help them in ascertaining:

(i) Overall creditworthiness of the enterprise.
(ii) The resources from which the enterprise will be in a position to make repayments of the loans taken.

3. Employees: The employees have also a stake in the business. Their growth and security of job depends upon the profitability of the firm which is directly related to effective utilisation of the funds by the enterprise. The employees can ascertain firm the funds flow statement regarding effective use of funds by the management during a particular period. The funds should be managed in a manner that the business is in a position to make payment of salaries to the employees in the time beside meeting other business costs.

It is a useful practice in business firms to prepare projected funds flow statement for a number of years to predict the future availability of the funds and their utilization. All this will help the firm in better planning of its resources and their utilizations.

1.3.9 SOME TYPICAL ITEMS WHICH REQUIRE PARTICULAR CARE

The following items require particular care while preparing a funds flow statement.

1. Digging out the hidden information: While preparing a funds flow statement one has to analyze the given balance sheet. Items relating to current account to be shown in the schedule of change in working capital. But the non-current items have to be further analyzed to fund out the hidden information in regard to sale or purchased of non current assets, issue or redemption of share capital, raising or repayment of long-term loans, transfer to reserves and provisions etc. the hidden information can be digged out either by preparing working notes in the statement form or preparing concerned accounts of non-current assets and non-current liabilities. Both of these methods have been clarified by following illustration:

Illustration :- The following is the Balance Sheet of Anil Corporations Ltd. as on 31st Dec. 2003 and 2004. You are required to prepare a Schedule of Changes in Working Capital and a Funds Flow Statement.

Balance Sheet of Anil Corporation Ltd.					
Liabilities	2003	2004	Assets	2003	2004
Share Capital (Paid up):			Land & Buildings	60,000	50,000
11% Cumulative Preference Share		30,000	Plant and Machinery	30,000	50,000
Equity Shares	1,10,000	1,20,000	Sundry Debtors	40,000	48,000
General Reserve	4,000	4,000	Stock	60,000	70,000
Profit & Loss A/c	2,000	2,400	Bank	2,400	7,000
9% Debentures	12,000	14,000	Cash	600	1,000
Provision for Taxation	6,000	8,400			
Proposed Dividend	10,000	11,600			

Current Liabilities	49,000	35,600			
	1,93,000	2,26,000		1,93,000	2,26,000

Solution:

Schedule of Changes in Working Capital				
Particulars	2003	2004	Increase	Decrease
Current Assets:				
Sundry Debtors	40,000	48,000	8,000	
Stock	60,000	70,000	10,000	
Bank	2,400	7,000	4,600	
Cash	600	1,000	400	
	1,03,000	1,26,000		
Current Liabilities:				
Current Liabilities	49,000	35,600	13,400	
	49,000	35,600		
Working Capital (CA-CL)	54,000	90,400		
Net increase in Working Capital	36,400			36,400
	90,400	90,400	36,400	36,400

Funds Flow Statement			
Sources	Rs.	Applications	Rs.
Issue of the Preference Shares	30,000	Purchase of Plant and Machinery	20,000
Issue of the Equity Shares	10,000	Provision for Taxation*	6,000
Issue of the Debentures	2,000	Proposed Dividend**	10,000
Sale of the Land and Buildings	10,000	Net Increase in Working Capital	36,400
Funds from Operations	20,400		
	72,400		72,400

* For 2003 assumed to be paid

** For 2003 assumed to be paid

Working Notes:

1. As current Liabilities are separately given, provision for taxation and proposed dividend has not been taken as current liabilities.

2. Calculations of Issue of Preference Shares:	
Preference share in beginning of 2004	--------
Preference share raised during the year 2004	30,000
Preference share at the end of 2004	30,000
3. Calculation of Issue of Equity Share:	
Equity Share Capital In the beginning of 2004	1,10,000
Equity Share Capital at the end of 2004	1,20,000
Equity Share Capital issued during the year 2004	10,000
4. Issue of Debenture:	
9% Debenture in the beginning of 2004	12,000
9% Debenture at the end of the year 2004	14,000
9% Debenture issued during the year 2004	2,000

5. Provision for taxation and proposed dividend for 2003 have been presumed to be paid in 2004.

6. Calculations of Sale of Land and Buildings:	
Opening Balance of Land & Building in 2004	60,000
Closing Balance of Land & Building in 2004	50,000
Land and Building purchased during the year 2004	10,000
7.Purchase of Plant & Machinery:	
Opening Balance in 2004	30,000
Closing Balance in 2004	50,000
Purchased during the year	20,000

8.Calculation of Funds from Operations:	
Closing Balance of P & L A/c in 2004	2,400
Add: Non-fund and Non-operating items Debited to P & L A/c:	
Provision for taxation	8,400
Proposed Dividend	11,600
	22,400
Less: Opening Balance of P & L A/c	2,000
Funds from Operations	20,400

2. Investments: The treatment of the investment depends on the nature of the investment. If the investment is made in short term investment instrument then it is considered as current assets and shown in the schedule of changing in working

capital. Or if the investment is made in long term instrument then the difference between opening and closing balance is treated as purchase or sale of investment and will be shown in the funds flow statement and appropriate adjustment regarding the profit or loss on sale of investment is made during the calculation of funds from operations.

3. Provision for Taxation: If the provision for taxation is treated as current liability then it should be shown in the schedule of changing in working capital. If it is treated, as non-current liability then opening balance will be shown in the funds flow statement by assuming it as paid for last year and closing balance will be added back in the profit if it is debited earlier in P & L A/c for calculation of Funds from Operations.

4. Proposed Dividend: Proposed dividend also can be treated in two ways as same as provision for taxation and adjustment will be same as in the case of provision for taxation.

5. Interim Dividend: The expression interim dividend denotes a dividend paid to the members of the company during a financial year, before the finalization of annual accounts. The dividend paid or declared in between the two annual general meeting should be added back while calculating funds from operations. However, if the figure of profit is taken prior to the debit of interim dividend this adjustment is nor required. The interim dividend is also an application of funds and has to appear on the applications side of funds flow statement.

6. Provision against Current Assets: The provision against the current assets either deducted from their respective opening and closing balances before entering in the schedule of changes in working capital or the difference between the opening and closing balance if excess provision has been created may be treated as appropriation of profit and should be added back while calculating the funds from operations. The amount of excess provision will not be shown in the schedule of changes in working capital.

7. Depreciation: Depreciation means decrease in the value of an asset due to wear and tear, lapse of time, obsolesce and accident. Depreciation is taken as an operating expense while calculating operating profit. When we make the entry of depreciation profit and loss account is debited while fixed asset account is credited with the amount of depreciation. Since, both the accounts are non-current accounts so depreciation is treated as a non-fund item. It is neither a source nor a application of funds so it is added back to operating profit to find out funds from operations.

Illustration : The following schedule shows the balance sheets in condensed form of Bharat Carbons Limited at the beginning and end of the year:

Particulars	1/1/2008	31-12-2008
Cash	50,409	40,535
Sundry Debtors	77,180	73,150
Temporary Investment	1,10,500	84,000
Prepaid Expenses	1,210	1,155
Inventories	92,154	1,05,538
Surrender Value of Life Policies	4,607	5,353
Land	25,000	25,000
Other Fixed Assets(Including Machinery)	1,47,778	1,82,782
Debenture Discount	4,305	2,867
	5,13,143	5,20,380
Sundry Creditors	1,03,087	95,656
Outstanding Expenses	12,707	21,663
4% Mortgage Debentures	82,000	68,500
Accumulated Depreciation	96,618	81,633
Allowance for Inventory Loss	2,000	8,500
Reserve for Contingency	1,06,731	1,34,178
Surplus in P/L A/c	10,000	10,250
Equity Share Capital	1,00,000	1,00,000
	5,13,143	5,20,380

Additional Information:

1. Net profit for the year 2008 as P & L A/c is Rs. 49,097.
2. 10% cash dividend was paid during the year.
3. The premium on life policies Rs. 2,773 was paid during the year, which Rs. 1,627 has been written off from P & L A/c.
4. New machinery was purchased for Rs. 31,365 and machinery costing Rs. 32,625 was sold during the year. Depreciation on machinery sold had accumulated to Rs. 29,105 at the date of the sale. It was sold as scrap for Rs. 1,500.
5. The Mortgage debentures mature at the rate of Rs. 5,000 per year. In addition to the above The Company purchased and retired Rs. 8,500 of the debentures at Rs. 103. Both the premium on retirement and the applicable discount were charged to P & L A/c.

6. The allowance for inventory loss was credited by a charge to expenses in each year to provide for obsolete items.
7. A debit to reserve for contingencies of Rs. 11,400 was made during the year. This was in respect of settlement of past tax liability.

You are required to prepare a statement showing the sources and applications of funds for the year 2002.

Solution:

Statement of Changes in Working Capital

Particulars	1/1/2008	31/12/08	Increase	Decrease
Current Assets:				
Cash	50,409	40,535		9,874
Sundry Debtors	77,180	73,150		4,030
Temporary Investment	1,10,500	84,000		26,500
Prepaid Expenses	1,210	1,155		55
Inventories	92,154	1,05,538	13,384	
	3,31,453	5,20,380		
Current Liabilities:				
Sundry Creditors	1,03,087	95,656	7,431	
Outstanding Expenses	12,707	21,663		8,956
Allowance for Inventory Loss	2,000	8,500		6,500
	1,17,794	1,25,819		
Working Capital	2,13,659	1,78,559		
Net Decrease in W.C.		35,100	35,100	
	2,13,659	2,13,659	59,915	59,915

Note :

1) Surrender value of the life insurance policy is not considered as a current asset.

2) Allowance for inventory loss which is a provision against the current asset has been treated as a current liability like provision for doubtful debts not to be an appropriation of profits.

Statement of Sources and Applications of Funds for the year ended 31/12/08

Sources	Rs.	Applications	Rs.
Funds from Operation	68,957	Redemption of debentures	13,755
Sale of Machinery as scrap	1,500	Purchase of machinery	31,365

Net Decrease in W.C.	35,100	Purchase of other fixed assets	36,264
		Payment of life insurance premium	2,773
		Payment of Tax	11,400
		Payment if Dividend	10,000
	1,05,557		1,05,557

Working Notes:

4% Mortgage Debentures A/c

To Cash	5,000	By Balance b/d	82,000
To cash	8,755	By Adjusted P/L A/c(Premium)	255
To Balance c/d	68,500		
	82,255		82,255

Other Fixed Assets (including machinery)

To Balance b/d	1,47,778	By Accumulated Depreciation	20,105
To Cash(Purchase)	31,365	By Cash (Sale)	1,500
To Cash(Purchase)balancing figure	36,264	By Adjusted P/L A/c(loss)	2,020
		BY Balance c/d	1,82,782
	2,15,407		2,15,407

Accumulated Depreciation A/c

To Other Fixed Assets A/c	29,105	By Balance b/d	96,618
To Balance c/d	81,633	By Adjusted P/L A/c(b/f)	14,120
	1,10,738		1,10,738

Reserve for Contingency A/c

To Tax Paid	29,105	By Balance b/d	1,06,731
To Balance c/d	1,34,178	By Adjusted P/L A/c(b/f)	28,847
	1,45,578		1,45,578

Debenture Discount A/c

To Balance b/d	4,305	By Adjusted P/L A/c(b/f)	1,438
		By Balance c/d	2,867
	4,305		4,305

Life Policy A/c			
To Balance b/d	4,607	By Adjusted P/L A/c	1,627
To Cash (Premium Paid)	2,773	By Adjusted P/L A/c (Rs 1,627 given to be transferred to P/L A/c and Rs.400 B/F being excess of book value over surrender value)	400
		By Balance c/d	5,353
	7,380		7,380

Adjusted Profit & Loss A/c			
To 4% Mortgage debenture a/c		By Balance b/d	10,000
Premium on redemption	255	By Funds From Operation	68,957
To Accumulated Dep. A/c	14,120		
To Other Fixed Assets A/c- loss on sale	2,020		
To Reserve for Contingency A/c	38,847		
To Debenture Discount A/c	1,438		
To Dividend	10,000		
To Life Insurance Policy	2,027		
To Balance c/d	10,250		
	78,957		78,957

Note: If allowance for Inventory Loss is not treated as a currently liability net decrease in working capital shall be Rs. 28,600.

Illustration : From the following Comparative Balance Sheet and Income Statement of ABC Ltd. prepare a Statement of Changes in Financial Position:

ABC Limited
COMPARATIVE BALANCE SHEET
For the year ended 31st Dec. 2003 and 2004

Particular	2003	2004
Current Assets:		
Cash	70,000	50,000
Debtors	40,000	45,000

Stock	1,25,000	90,000
Total Current assets	2,35,000	1,85,000
Fixed Asset:		
Land and Building	1,50,000	1,00,000
Plant and Machinery	22,000	2,00,000
Less: Accumulated Depreciation	82,000	80,000
Total Fixed Assets	2,88,000	2,20,000
Total Assets	5,23,000	4,05,000
Current Liabilities:		
Creditors	25,000	30,000
Salaries Payable	15,000	10,000
Provision for tax	50,000	60,000
Provision for Dividend	40,000	40,000
Total Current Liabilities	1,30,000	1,40,000
Long Term Liabilities:		
Bank Loan	23,000	15,000
Debentures	1,20,000	1,50,000
Total Long term Liabilities	1,43,000	1,65,000
Total Liabilities	2,73,000	3,05,000
Owner's Equity:		
Share Capital	175,000	75,000
Share Premium	12,500	7,500
Reserve and surplus	62,500	17,500
Total Equities	2,50,000	1,00,000
	5,23,000	4,05,000

ABC Limited
Income Statement
For the year ended 31st Dec. 2004

Particulars	Rs.	Rs.
Sales		5,00,000
Less: Cost of Goods Sold		2,10,000
Gross Profit		2,90,000
Less: Operating Expenses:		
Office and Administration Exp.	45,000	

Selling and Distribution Exp.	25,000	
Interest	12,000	
Depreciation	22,000	1,04,000
Operating Profit		1,86,000
Add: Gain on sale of Plant		6,000
Total Profit		1,92,000
Less: Income Tax		85,000
Net Profit		1,07,000

Additional Information:

(1) During the year plant Rs. 50,000 (accumulated depreciation Rs. 20,000) was sold

(2) The debentures of Rs. 30,000 were converted into share capital at par.

(3) The company declared a cash dividend of Rs.40, 000 and a stock dividend of Rs. 20,000 for the year.

(4) The company issued 5,000 additional shares, par value Rs.10 per share, at premium of 10% during the year.

Solution:

Schedule of Changes in Working Capital				
Particulars	2003	2004	Increase	Decrease
Current Assets:				
Cash	50,000	70,000	20,000	
Debtors	45,000	40,000		5,000
Stock	90,000	1,25,000	35,000	
Total Current assets	1,85,000	2,35,000		
Current Liabilities:				
Creditors	30000	25000	5,000	
Salaries Payable	10000	15000		5,000
Provision for tax	60000	50000	10,000	
Provision for Dividend	40000	40000		
Total Current Liabilities	1,40,000	1,30,000		
Working Capital	45,000	1,05,000	70,000	10,000
Increase in Working Capital	60,000			60,000
Total	1,05,000	1,05,000	70,000	70,000
Funds Flow Statement				
Sources:				

Funds from Operations	1,21,000
Sales of plant	36,000
Loan from bank	8,000
Issue of share	55,000
	2,20,000
Applications:	
Purchase of land & Building	50,000
Purchase of Plant & Machinery	70,000
Payment of Dividend	40,000
Increase in Working capital	60,000
	2,20,000

Note: Stock dividend and debenture converted into share do not find place in a funds flow statement because these items are not affecting the position of the funds in the concern.

Working Notes:

Adjusted Reserve and Surplus A/c			
To proposed Dividend	60,000	By Balance b/d	17,500
To accumulated Depreciation	22,000	By Plant and Machinery (Profit on Sale)	6,000
To Balance b/d	62,500	By Funds from Operations	1,21,000
	1,44,500		1,44,500

Plant and Machinery A/c			
To Balance b/d	2,00,000	By Accumulated Depreciation	20,000
To Adjusted Reserve and Surplus A/c	6,000	By Cash (Sale)	36,000
To Cash (Purchase - B/F)	70,000	By Balance c/d	2,20,000
	2,76,000		2,76,000

Accumulated Depreciation A/c			
To Plant A/c	20,000	By Balance b/d	80,000
To Balance c/d	82,000	To Adjusted Reserve and Surplus A/c (Depreciation)	22,000
	1,02,000		1,02,000

Further practice can be done with the help of textbooks.

1.3.10 Summary

A fund flow statement also known as a cash cash flow statement provides a summary of how funds have moved in and out of a company during a specific period. It helps analyst, investors and stakeholders understand the cash flow dynamics of a business and assess its ability to generate and utilize.

1.3.11 Glossary

Cash flow hedge- a hedge that aims to offset cash flow risks typically related to variables rate debt or anticipated transaction.

Free cash flow –the cash flow available to the company after deducting capital expenditure from cash flow to operating activities

1.3.12 EXERCISE QUESTIONS

1. What is the Funds Flow Statement? Examine its managerial uses.
2. "Funds flow statement represents a stock to flow linkage", Justify.
3. Discuss the Procedure of making a Funds Flow Statement.
4. What are the causes for Change in Working Capital? Discuss.
5. Briefly discuss the meaning, importance and objectives of the Funds Flow Statement.
6. From the following Balance Sheet of a company you are required to prepare 1) a statement showing changes in working capital 2) a statement of sources and applications of the funds.

Balance Sheet

Particular	Jan.2003	Jan.2004
Cash	40,000	44,400
Account Receivable	10,000	20,700
Inventories	15,000	15,000
Land	4,000	4,000
Building	20,000	16,000
Equipment	15,000	17,000
Accumulated Depreciation	-5000	-2,800
Patents	1,000	900
	1,00,000	1,15,200
Current Liabilities	30000	32,000
Bonds Payable	22,000	22,000
Bonds Payable Discount	-2,000	-1,800
Capital Stock	35,000	43,500
Retained Earnings	15,000	19,500
	1,00,000	1,15,200

Additional Information:

1. Income for the period Rs.10,000
2. A building that cost Rs.4000 and which had a book value of Rs.1000 was sold for Rs. 1400.
3. The depreciation charge for the period was Rs. 800.
4. There was Rs. 5000 issue of common stock.
5. Cash Dividend Rs. 2000 and a Rs. 3500 stock dividend were declared.

[Ans. Net Increase in working capital: Rs. 13,100 , Source of Funds: Rs. 17,100, Application of funds: Rs. 4,000 Funds From Operations: Rs. 10,700]

7. A balance Sheet of retained earning of X Ltd. is given below:

Balance of retained earning, 1st Jan. 2003 3,25,600	
Add: Net Profit after tax.	6,48,480
Tax Refund	25,470
	9,99,550
Less: Loss on sale of Plant & Machinery	14,460
Goodwill written off	95,370
Dividend Paid	4,70,350
	5,80,180
Balance of Retained Earning, 31st Dec.2003	4,19,370

Additional Information:

1. Plant and Machinery having a written off value of Rs.54,360 was sold on Oct. 200.
2. Depreciation of Rs.68,250 has been deducted while arriving at net profit for the year.
3. Plant and Machinery was purchased during the year at a cost of Rs. 1,60,000 but the payment was made in the form of 8% debentures of Rs. 100 Each for the same.
4. Rs. 72,800 dentures have been redeemed during year 2003.

You are required to prepare a statement of Sources and Applications of the funds for the Year ended on 31st Dec.2003.

[Ans. Funds from operations Rs. 7,16,730 Funds flow statement. Rs.7,82,100 increase in the working capital Rs.2,38,950]

8. The following is the Balance Sheet of Sri Krishna Limited:

As on 31/3/2002 (in Lakhs)	Liabilities	As on 31/3/2003 (in Lakhs)	As on 31/3/2002 (in Lakhs)	Assets	As on 31/3/2003 (in Lakhs)
	Share capital:		15	Plant	18.00
100.00	Equity Shares of Rs. 100 Each	15.00	6.00	Stock	3.00
	9% redeemable preference		15.00	Debtors	10.00
	Share of Rs. 100 each Rs.50		1.00	Cash Balance	1.00
5.00	Called up	Nil	1.00	Misc. Expenditure	4.00
0.25	Share Premium	Nil			
Nil	Capital Redemption Reserve	5.00			
10.00	General Reserve	7.00			
2.75	Profit & Loss A/c	3.00			
10.00	Other Liabilities	6.00			
38.00		36.00	38.00		36.00

Further information furnished:

1. The company declared a dividend of 20% to equity share on 30/6/2002.
2. The company issued notice to preference share for redemption at a premium of 5% on 1/7/2002 and the entire proceeding were completed before 15/8/2002/in accordance with the law after making a call of Rs. 50 per share, so as to make shares fully paid.
3. The company provided depreciation at 10% on the closing of Plant. During the year one plant of book value Rs. 1,00,000 was sold at loss of Rs. 25,000.
4. There was no change in the schedule of debtors as on 31/3/2002. However, as the company felt that certain debtors were doubtful of recovery, a provision was made in the account.
5. Miscellaneous expenditure included Es.5 lakh shares issue and other expenses paid during the year.

Prepare funds flow statement for the year ended 31/3/2003.

[Ans. Net decrease in working capital. Rs. 4 lakh, funds flow statement Rs.24,06,250 funds from operations. Rs. 9,31,250]

Write short note on:

1. objective of fund flow
2. working capital.

1.3.13 SUGGESTED READINGS

1. Pandey, I.M., Management Accounting, Vikas Publishing House, N.Delhi
2. Horngren & Sundem, Introduction to Management Accounting, Prentice Hall of India, N.Delhi.
3. Anthony R.N. and Reece J.S., Management Accounting Principles, 6th ed., Homewood, Illinois, Richard D.Irwin, 1995.
4. Hansen & Mowen, Management Accounting, Thomson Learning, Bombay.
5. Anthony Robert and Hawkins David, Accounting: Text & Cases, McGraw Hill, 1999
6. Mittal, S.N., Management Accounting and Financial Management, Shree Mahavir Book Depot, N.Delhi.
7. Jain, S.P and Narang, K.L., Advanced Cost Accounting, Kalyani Publishers, Ludhiana.
8. Gupta, R.L., and Radha Swamy, M, Advanced Accounting, Sultan chand & Sons, N.Delhi.
9. Khan, M.Y. and Jain, P.K., Management Accounting, TMH, N.Delhi.

1.3.14 Answers to Self Check Exercise

(a) See Para 3.3
(b) See Para 3.7.2
(c) See Para 3.7.2

LESSON NO. 1.4 AUTHOR : ASHWANI KUMAR

CASH FLOW STATEMENT

LESSON STRUCTURE

1.4.1 OBJECTIVES:

After reading this chapter you will be able to: prepare a statement of changes in cash; make out a statement of sources and applications of cash; and understand that why after a high profit cash position become worst.

1.4.2 INTRODUCTION

The statement of changes in financial position based on working capital is of immense use in long-range financial planning. The long-term financing and investment activities are specifically portrayed. The net working capital requirements are shown as residual figures. However, the working capital concept may conceal or exclude too much. It treats increases in inventories and account receivable as equaling to an increase in bank overdraft. This is not a correct treatment. In fact, accrued expenses like wages and salaries may become payable in next 10 days or so: sundry creditor's bills may fall due for payment during the next one month, where as bank overdraft may be for a longer period of, say three months or even more. Similarly, inventories and account receivables undergo a transformation before they become money assets. It is possible that there is sufficient net working capital as revealed by the statement of changes in financial position, and yet the firm may be unable to meet its current liabilities as and when they fall due. It may be due to a sizeable piling up of inventories and an increase in debtors caused by a slow-down in collections. The firm's failure to meet its short-term commitments, in spite of its sound long-range financial position and adequate

profitability, may plunge it to technical insolvency. Therefore, in making plans for the more immediate future, the management is vitally concerned with a statement of cash flow, which provides more detailed information. Such a statement is useful for the management to assess its ability to meet obligation to trade creditors, to pay bank loans, to pay interest to debenture-holders and dividends to its shareholders. Furthermore, the projected cash flow statement prepared month wise or so can be useful in presenting information of excess cash in some months and shortage of cash in others. By making available such information in advance the statement of cash flow enables the management revise its plan. So avoid the technical insolvency and to get aware about the short-term liquidity position management have to make Cash Flow Statement.

1.4.3 MEANING OF THE CASH FLOW STATEMENT

Cash Flow Statement is a statement that describes the inflow (sources) and outflow (applications) of cash and cash equivalent in an enterprise during a specified period of time. Such a statement enumerates net effect of the various business transactions on cash and its equivalent and takes into account receipts and disbursement of cash. Cash flow statement summarises the causes of changes in cash position of a business enterprise between dates of two balance sheets. According to AS-3 (revised), an enterprise should prepare a cash flow statement and should present it for each period for which financial statements are prepared. The term cash, cash equivalent and cash flow are used in the statement with the following meanings:

Cash comprises cash on hand and demand deposit with bank. Cash Equivalents are short term highly liquid investments that are readily convertible into known amounts of cash and which are subject to an insignificant risk of changes in value. Cash equivalent are held for the purpose of meeting short term cash commitments rather than for investment or other purposes. An investment normally qualifies as a cash equivalent only when it has a short-maturity, of say, three months or less from the date of acquisitions.

Cash flow means movement of funds that may be toward outside called outflow of cash and that may be from outside to inside business called inflow of cash. In another words flow of cash is said to have taken place when any transaction makes changes in the amount of cash and cash equivalent before happening of the transaction.

Cash flows exclude movements between items that constitute cash or cash equivalent because these components are part of the cash management of an enterprise rather than part of its operating, investing and financing activities. Cash management includes the investment of excess cash in cash equivalent.

In another words a cash flow statement is a statement depicting changes in cash position from one period to another. For example, if the cash balance of a business is shown by its Balance Sheet in 31st Dec. 2003 at Rs. 20,000 while the cash balance as per its Balance Sheet on 31St Dec. 2004 is Rs.30,000, there has been an

inflow of cash of Rs.10,000 in the year 2004 as compared to the year 2003. The cash flow statement explains the reasons for such inflows or outflows of cash, as the case may be. It also helps management in making plans for the immediate future. A projected cash flow will be available to meet obligation to trade creditors, to pay bank loans and to pay dividend to the shareholders.

1.4.4 PURPOSE AND USES OF CASH FLOW STATEMENT

The main purpose of the statement of cash flows is to provide relevant information about the cash receipts and cash payments of an enterprise during a period. The information will help users of financial statements to assess the amounts, timing and uncertainty of prospective cash flows to the enterprise. The statement of the cash flows is useful to them in assessing an enterprise's liquidity, financial flexibility, profitability and risk. It also provides a feedback about the previous assessments of these factors. Investors, analyst, creditors, managers and others will find the information in the statement of cash flows helpful in assessing the following:

1. It is very useful in the evaluation of cash position of a firm.
2. A projected cash flow statement can be prepared in order to know the future cash position of a concern so as to enable a firm to plan and coordinates its financial operations properly.
3. A comparison of historical and projected cash flow statement can be made so as to find the variation and deficiency or otherwise in the performance so as to enable the firm to take immediate and effective actions.
4. A series of intra firm and inter firm cash flow statement reveals whether the firm's liquidity is improving or deteriorating over a period of time.
5. Cash flow statement helps in planning the repayment of loans, replacement of fixed assets and other similar long term planning of cash.
6. Cash flow analysis is more useful and appropriate than fund flow analysis for short-term financial analysis as in a very short period it is cash, which is more relevant, then the working capital for forecasting the ability of the firm to meet its immediate obligations.
7. Cash flow statement prepared according to AS-3 is more suitable for making comparison than the funds flow statement, as there is no standards format used for the same.
8. Cash flow statement provides information of all activities classified under operating, investing and financing activities.

1.4.5 STRUCTURE OF CASH FLOW STATEMENT

According to AS-3, the cash flow statement should report cash flows during the period classified by operating, investment and financing activities as follows:

- Cash flow from operating activities
- Cash flow from investing activities
- Cash flow from financing activities

1. Cash flow from operating activities involves cash generated by producing and delivering goods and providing services. Cash inflow includes receipts from customers for sales of goods and services (including collection of debtors). Cash outflow from operating activities include payments to suppliers for purchase of material and for services, payment to employees for services and payment to governments for taxes and duties. Then by comparing the inflow and outflow of cash we can determine the net value of cash flows. If the inflows are more than outflows then it is called cash generated from operating activities or if cash outflows are more than cash inflows then it is called cash lost in operating activities. This cash flow is a key indicator of the extent to which the operations of the enterprise have generated sufficient cash flows to maintain the operating capability of the enterprise, pay dividend, repay loans and make new investments without recourse to external sources of financing. Information about the specific component of historical operating cash flows is useful, in conjunction with other information, in forecasting future operating cash inflows.

Examples of cash flows from operating activities are:

- Cash receipts from the sale of goods and rendering the services.
- Cash receipts from royalties, fees, commission and other revenue.
- Cash payment to suppliers of goods and services.
- Cash payment to and on behalf of employees.
- Cash receipts and cash payment of an insurance enterprise for premium and claims, annuities and other policy benefits.
- Cash payment and refund of income tax unless can be specifically identified with financing and investing activities.
- Cash receipts and payments relating to futures contract, forward contracts, option contracts and swap contracts when the contracts are held for dealing or trading purpose.

Some transactions, such as the sale of an item of plant, may rise to a gain or loss that is included in the determination of the net profit or loss. However, the cash flow relating to such transactions are cash flows from investing activities.

2. Cash flow from investing activities involves the cash generated by making and collecting loans and acquiring and disposing of debts and equity instruments and fixed assets. Cash inflows from investing activities are receipts from collection of loans, receipts from sales of shares, debts or similar instruments of other enterprises, receipts from sale of fixed assets and interest and dividend received firm loans and investments. Cash outflows from investing activities are disbursement of loans, payments to acquire share debts or similar instruments of other enterprise and payment to acquire fixed assets. Cash receipts and payments relating to futures contract, forward contracts, option contracts and swap contracts except when the contracts are held for dealing or trading purpose or the payments or receipts are classified as financing activities.

3. Cash flows from financing activities involves cash generated by obtaining resources from owners and providing them with a return on their investment, borrowing money and repaying amounts borrowed and obtaining and paying for other resources obtained from creditors on long-term credit. Cash flows from financing activities involve the proceeding from issuing share or other similar instrument, debentures, mortgages, bonds and other short term or long-term borrowings. Cash outflow from financing activities are payments of dividend, payments to acquire or redeem shares to other similar instruments of the enterprise, payment of amount borrowed, principal payment to creditors who have extended long-term credit and interest paid.

It is important to note down that the classification of the cash flows into operating, investing and financing categories will depend upon the nature of the business. For example, for financial institutions like banks lending and borrowing are parts of their business operations. So the income and expenditure regarding the borrowing and lending will be included in the cash flow from operating activities.

1.4.6 TREATMENT OF SOME TYPICAL ITEMS

AS-3 (Revised) has also provided for the treatment of cash flow from some peculiar items as discussed below:

(1) Extraordinary items: The cash flow from extraordinary items just like winning the lottery, loss by fire etc. either classified as arising from operating, investing or financing activities as appropriate and separately disclosed in the cash flow statement to enable users to understand their nature effect on the present and future cash flows of the enterprise.

(2) Interest and Dividend: A great care have to be taken regarding the interest and dividend as receivable of the interest and dividend is a result of investment so it is considered as cash inflow from investing activities while payment of dividend and interest arise due to collection of finance so it is termed as cash outflow from financing activities. But in case of a financial institution payment and receipts of interest and dividend are related to their main business so these items are treated under the head of cash flow from operating activities.

(3) Taxes on Income: Taxes paid by the business should be treated as cash outflow generated by operating activities if nothing is stated in the problem but if it is specified in question that the tax arise due to financing and investing activities then that tax should be treated under respective activities.

(4) Acquisitions and Disposal of Subsidiaries and other Business Units: The aggregate cash flows arising from acquisitions and from disposal subsidiaries or other business units should be presented separately and classified as investing activities. The separate presentation of the cash flow effects of acquisitions and disposal of subsidiaries and other business units as single line items helps to distinguish these cash flows from other cash flows. The cash flow effects of disposal are not deducted from those of acquisitions.

(5) Foreign Currency Cash Flow: Cash flows arising from transactions in a foreign currency should be recorded in an enterprise's reporting currency by applying to the foreign currency amount the exchange rate between the reporting currency and the foreign currency at the date of the cash flow. The effect of the changes in exchange rates on cash and cash equivalents held in a foreign currency should be reported as a separate part of the reconciliation of the changes in cash and cash equivalents during the period.

Unrealized gains and loss arising from changes in foreign exchange rates are not cash flows. However, the effect of exchange rate changes on cash and cash equivalent held is reported in the cash flow statement in order to reconcile the value of cash and cash equivalent at the beginning and the end of the period. This amount is presented separately from cash flows from operating, investing and financing activities and includes the difference, if any.

(6) Non-Cash Transactions: There are some transactions, which do not affect the cash positions of the business directly but affect the capital and asset structure of an enterprise. Such as the conversion of debts into equity, the acquisitions of an enterprise by means of issue of shares etc. These transactions should not be included in the cash flow statement but due to their importance these can be shown as additional information under the statement.

1.4.7 FORMAT OF CASH FLOW STATEMENT

AS-3 (Revised) has not provided any specific format for preparing a cash flow statement. The cash flow statement should report cash flows during the period classified by operating, investing and financing activities. A widely used format of cash flow statement is given below.

COMPANY'S NAME:……..

Cash Flow Statement

For the year ended……..

Particulars	Rs.	Rs.
Cash flow from Operating Activities		
(List of the individual inflows and outflows)	……...	
Net Cash Flow from Operating Activities		……
Cash Flows from Investing Activities		
(List of individual inflows and outflows)	…….	
Net Cash Flows from Investing Activities		…….
Cash Flows from Financing Activities		
(List of individual inflows and outflows)	…….	
Net Cash Flows from Financing Activities		…….
Net increase (Decrease) in Cash and Cash Equivalents		…….
Cash and cash Equivalent at the Beginning of the period		…….
Cash and cash Equivalent at the End of the period		…….

1.4.8 PROCEDURE FOR PREPARING A CASH FLOW STATEMENT

Let us study how to construct the cash flow statement. As shown in the format of the cash flow statement all the cash inflows and outflows will be classified according to operating, investing and financing activities. Following are the procedures of the calculation of cash flow from different activities: -

Determination of cash flow from operating activities: The profit and loss accounts shows whether an enterprise's operations have results in profit or loss, but it does not indicate cash inflows and cash outflows from operating activities. This is because net profit is computed using the accrual basis of accounting. Revenue is recorded when earned although the cash for some of them may not have been collected, and expenses are recorded when incurred although all of them may not have been paid in cash. Further, depreciation, amortization and provision for doubtful debts do not reflect cash outflows in both current and future periods. Thus, the net profit will not indicate the net cash flow from operations. In order to arrive at net cash flow from operating activities, it is necessary to restate revenues and expenses on a cash basis. This is done by adjusting for the effects of transactions considered in preparing the profit and loss account that did not involve cash inflows or cash outflows. There are two methods for reporting the net cash flow from operating activities.

(1) Direct method
(2) Indirect method

(1) Direct method: Under this method, cash receipts from operating activities and cash payments for operating expenses are calculated to arrive at cash flows from operating activities. The difference between the cash receipts and cash payments is the net cash flow provided by operating activities. Cash flow from operating activities can be calculated as follows:

Cash Flow from Operating Activities:	
Cash received from customers	XXX
Cash paid to suppliers and employees	(XXX)
Cash generated from operations	XXX
Income tax paid	(XXX)
Cash flow before extraordinary item	XXX
Extraordinary item	(XXX)
Net cash flow from operating activities	XXX

Cash received from customers: Cash receipts from customers from cash sales and collections of debtors arising from credit sales. Cash sales result in cash inflows in the current period. However, collections from customers require additional calculations, sales from an earlier period may be collected in the current period, sales from the current period may be collected in future period or some debtors may not be collected at all. As result, collections from customers in current period are seldom equal to credit sales. The relationship among the credit sales, change in debtors and collections from customers may be stated in equation form as follows:

Cash received form customers= Sales + Opening balance of trade debtors (Debtors & B/R) – Closing balance of trade debtors.

Cash paid to suppliers and employees: After calculation of cash received from customers the second thing that would be calculated is cash paid to suppliers and employees in lieu of services and goods received from them. Cash paid to customers and employees can be calculated by using following equation:

Cash Paid to suppliers and employees = Purchases for the year as per statement of profit + Opening trade creditors (Creditors & B/P) – Closing trade creditors + selling and administrative expenses + prepaid expenses at the end of the year – prepaid expenses in the beginning of the year.

Income tax paid: The amount of the income tax paid usually differs from the estimated income tax expense, appearing on the profit and loss account. Also a part of the income tax expenses for a year is paid in the following year. The difference between income tax payment and income tax expense result in a change in income tax payable. The following equation shows this relationship:

Tax paid during the year = Opening balance of tax unpaid + Provision made during the year – Closing balance of tax unpaid.

Let us take an example to understand these treatments.

Illustration : The Board of Director of Amit ltd. was not able to decide that why the Co. are not having adequate cash balance. The amount of profit of the company for the year 2003 was Rs. 90,000. This was highest amount as compared to previous years. You have been asked to prepare a Cash Flow Statement with the help of following information using direct method.

Balance Sheet

(Rs. in thousands)

Liabilities	Dec.2002	Dec.2003	Assets	Dec.2002	Dec.2003
Issue and paid up capital	1,575.00	1,575.00	Long term assts	1,125.00	2.047.50
Profit and Loss A/c	157.00	225.00	Closing stock	337.50	900.00
Mortgage Loan		900.00	Prepayments	45.00	90.00

Tax unpaid	22.50	67.50	Trade debtors	112.50	450.00
Trade creditors	315.00	877.50	Cash	450.00	157.50
	2,070.00	3,645.00		2,070.00	3,645.00

Statement of Profit (For the year ended Dec.2003)		
Particulars	Rs. ,000	Rs. ,000
Sales		2,250.00
Opening stock	337.50	
Add. Purchases	2205.00	
	2,542,50	
Less Closing stock	900.00	1642.50
Gross profit		607.50
Less:		
Administrative expenses	247.50	
Depreciation	180.00	
Taxes (Provision)	90.00	517.50
Net Profit		90.00
Payment of dividends		22.50
		67.50
Add. Profit and loss a/c (Jan.2003)		157.50
Balance on Dec. 2003		225.00

You are also informed that a new building was purchased on 15th June 2003 for Rs. 11,02,500.

Solution:

Cash Flow Statement (For the year ended 31st Dec.2003)		
Particulars	Rs., 000	Rs., 000
Cash Flow from Operating Activities		
Cash Received from Customers (Note-1)	1,912.50	
Cash Paid to Suppliers and Employees (Note-2)	(1,935.00)	
Cash generated from Operating Activities	(22.50)	
Income Tax Paid (Note-3)	(45.00)	
Net Cash Used in Operating Activities		(67.50)
Cash Flow from Investing Activities		
Purchase of New Building	(1,102.50)	

Net Cash Used in Investing Activities		(1,102.50)
Cash Flow from Financing Activities		
Raising of Mortgage Loan	900.00	
Dividend Paid	(22.50)	
Net Cash Provided by Financing Activities		877.50
Net decrease in cash and cash equivalent		(292.50)
Opening balance of cash		450.00
Closing balance of cash		157.50

Working Notes:

1. Calculation of cash received from customers:

Sales for the year as per the statement	2,250.00	
Add: Trade debtors in the beginning		112.50
	2362.50	
Less: Trade debtors at the end	450.00	
Cash received from customers		1912.50

2. Calculation of cash paid to suppliers and employees:

Purchase for the year as per the statement of profit	2,205.00	
Add: Trade creditors in the begging	315.00	
	2520.00	
Less: Trade creditors at the end	877.50	
Cash paid to creditors for purchase of goods (A)		1642.50
Administrative expenses as per the statement of profit		247.50
Add: Prepaid exp. at the end		90.00
		337.50
Less: Prepaid Exp. In the begging		45.00
Cash paid for services (B)		292.50
Cash paid to suppliers and employees (A+B)		1,935.00

3.Calculation of tax paid:

Opening balance of tax unpaid	22.50
Add: Provision made during the year	90.00
	112.50
Less: Closing balance of tax unpaid	67.50
Tax paid during the year	45.00

(2) Indirect Method: Under the indirect method, the net cash flow from operating activities is determined by adjusting net profit or loss for the effect of:

(i) Non cash items such as depreciation, provision, deferred taxes and unrealized foreign exchange gains and losses

(ii) Changes during the period in inventories and operating receivables and payables.

(iii) All other items for which cash effects are investing or financing flows.

The indirect method is also called the reconciliation method as it involves reconciliation of net profit or loss as given in the profit and net cash flow from operating activities as shown in the cash flow statement. Cash flow from operating activities by using the indirect method can be calculated as follows:

Net Profit before Tax and Extraordinary Items	XXX
Add: Non-cash and non-operating items, which have already been Debited to P/L A/c;	
Depreciation	
Transfer to reserve and provisions	
Goodwill written off	
Preliminary expenses written off	
Other intangible assets written off just as discount or loss on issue of Shares, debentures and underwriting commission	
Loss on disposal of fixed assets	
Loss on sale of investment	
Foreign exchange loss	
	XXX
	XXX
Less: Non-cash and non-operating items, which have already been Credited to P/L A/c	
Gain on the sale of fixed assets	
Profit on sale of investment	
Income from interest or dividend	
Appreciation in values of fixed assets	
Reserve written back	
Foreign exchange gains	(XXX)
Operating profit before adjustment of working capital changes	XXX
Adjustment for changes in current operating assets and liabilities:	
Add: Decrease in accounts of current assets (except cash and cash equivalents)	XXX
Add: Increase in accounts of current operating liabilities (except Bank overdraft)	XXX
Less: Increase in accounts of current assets	(XXX)
Less: Decrease in accounts of current liabilities	(XXX)
Cash generated from operation before tax	XXX
Less: Tax paid	(XXX)
Cash flow before extra-ordinary items	XXX

Add/Less: Extra-ordinary items	XXX
Net cash flow from operating activities	XXX

Let us take an example to clear the above points.

Illustration : The following are the comparative Balance Sheet of Ashish Ltd. as on 31st Dec.2003 and 2004.

Balance Sheet					
Liabilities	2003	2004	Assets	2003	2004
Share capital (share of Rs.10 each)	3,50,000	3,70,000	Land	1,00,000	1,50,000
Profit & Loss A/c	50,400	52,800	Stock	2,46,000	2,13,500
9% Debentures	60,000	30,000	Goodwill	50,000	25,000
Creditors	51,600	59,200	Cash & Bank	42,000	35000
			Temporary Investment	3,000	4000
			Debtors	71,000	84,500
	5,12,000	5,12,000		5,12,000	5,12,000

Other particulars provided to you are: A) Dividend declared and paid during the year Rs.17,500 B) Land was revaluated during the year at Rs. 1,50,000 and profit on the revaluation transferred to P/L A/c. you are required to prepare a cash flow statement for the year ended 31/12/04.

Solution:

Cash Flow Statement (for the year ended 31St Dec.2004)		
Particulars	Rs.	Rs.
Cash Flow from Operating Activities		
Increase in the balance of P/L A/c	2,400	
Adjustment for non-cash and non-operating items:		
Profit on revaluation of land	(50,000)	
Goodwill written off	25,000	
Dividend declared	17,500	
Operating profit before working capital changes	(5,100)	
Adjustment for changes in current operating assets and liabilities:		
Increase in creditors	7,600	
Decrees in stock	32,500	
Increase in debtors	(13,500)	
Cash generated from operating activities	21,500	
Income tax paid	--------	
Cash flow from extra ordinary items	---------	

Net cash flow from operating activities		21,500
Cash flow from investing activities	--------	--------
Cash flow from financing activities		
Proceeds from issue of share capital	20,000	
Redemption of debentures	(30,000)	
Dividend paid	(17,500)	
Net cash used in financing activities		(27,500)
Net decrease in cash and cash equivalent		(6,000)
Cash and cash equivalent at the begging of the year		45,000
Cash and cash equivalent at the end of the year		39,000

1.4.9 LIMITATIONS OF CASH FLOW STATEMENT

Despite a numbers of uses, cash flow statement suffers from the following limitations:

1. As cash flow statement is based on cash basis of accounting, it ignores the basic accounting concepts of accrual basis.
2. Some people feel that as working capital is a wider concept of funds flow statement provides a more complete picture than cash flow statement. So it is based on narrow concept.
3. Cash flow statement is not suitable for judging the profitability of a firm as non-cash charges are ignored while calculating cash flows from operating activities.

1.4.10 COMPARISON BETWEEN FUNDS FLOW AND CASH FLOW STATEMENT

The term funds have a variety of meaning. In narrow sense it means cash and the statement of changes in the financial position prepared on cash basis is called a cash flow statement. In the most popular sense, the term funds refer to working capital and a statement of changes in the financial position prepared on this basis is called a funds flow statement. A cash flow statement is much similar to a funds flow statement as both are prepared to summarize the causes of changes in the financial position of a business. However the following are the main differences between funds and a cash flow statement.

Difference between Funds Flow Statement and Cash Flow Statement		
Basis of Difference	Funds Flow Statement	Cash Flow Statement
1. Basis of Concept	It is based on a wider concept of funds, i.e. working capital	It is based on a narrow concept of funds, i.e. cash
2.Basis of Accounting	It is based on accrual basis of accounting.	It is based on cash basis of accounting.
3.Schedule of changes in working capital	·dule of changes in working tal is prepared to show the changes in current assets and current liabilities.	No schedule of changes in working capital is prepared.

4. Method of Preparing	ds flow statement reveals the ces and applications of funds. net difference between ces and applications of funds represents net increase in working capital.	epared by classifying vs and outflows in ting investing and tivities. The net nce represents the net se or decrease
5. Basis of Usefulness	It is useful in planning intermediate and long term financing.	It is useful in planning intermediate and long term financing.
6.Discription	It describes the reasons for change in working capital.	It describes the reasons for changes in cash and cash equivalent.

Self Check Exercise :-

(a) Define cash flow Statement

(b) Compare Funds flow Statement with Cash flow Statement

1.4.11 Summary

The cash flow statement is a crucial tool for financial analysis complementing the income statement and balance sheet. It helps investors and stakeholders understand how a company manage its cash resources. Its to ability to meet financial obligation and its potential for growth and future investment. positive cash flow is generally considered a sign of financial strength while negative cash flow might indicate potential liquidity issues or excessive reliance on external finance.

1.4.12 Glossary

1. Net cash flow: the difference between inflows and outflows from all three activities i.e., operating, investing and financing.
2. Extraordinary items: winning the lottery, loss by fire etc.

1.4.13 EXERCISE QUESTIONS :

1. Define the term 'Cash Flow'. Explain the objective of cash flow analysis.
2. How does the statement of cash flows differ from the funds flow statement?
3. What is the purpose of statement of cash flows? How is it prepared? Explain and illustrate.
4. Why is the statement of cash flow considered necessary in addition to the profit and loss account and balance sheet?
5. Explain the procedure of preparing a cash flow statement.
6. Write short note:
   1. What is the purpose of cash flow.
   2. Explain extraordinary items with example.
7. The comparative balance sheet for Varun Ltd. are given below:

	Dec.2002	Dec.2003
Assets:		
Cash and Bank Balance	82,000	22,000
Debtors	1,04,000	24,000
Stock	1,12,000	60,000
Prepaid Expenses	22,000	14,000
Plant and Machinery	3,80,000	3,60,000
Goodwill	36,000	40,000
	7,36,000	5,20,000

Liabilities:		
Creditors	30,000	14,000
Provision for Depreciation	1,00,000	60,000
Debentures	1,02,000	1,02,000
Premium on Debenture Issue	12,000	18,000
Share Capital	1,90,000	90,000

Share Premium	30,000	
Reserve and Surpluses	2,72,000	2,36,000
	7,36,000	5,20,000

The following additional informations is available from the accounting records for 2002.

1. Debenture premium of Rs. 6,000 was amortized during the year.
2. Dividend paid Rs. 6,000.

You are required to prepare a cash flow statement.

(Answer: Net cash used in operating activities Rs.44,000; Net cash used in investing activities Rs. 20,000; Net cash provided by financing activities Rs. 1,24,000; net increase in cash and cash equivalent Rs. 60,000)

1.4.14 SUGGESTED READINGS

1. Sharma, R.K. & Gupta, Shashi K., Management Accounting, Kalyani Publication, New Delhi.
2. Horngren & Sundem, Introduction to Management Accounting, Prentice Hall of India, N.Delhi.
3. Anthony R.N. and Reece J.S., Management Accounting Principles, 6th ed., Homewood, Illinois, Richard D.Irwin, 1995.

1.4.15 Answers to Self Check Exercise

(a) See Para 4.3
(b) See Para 4.10

Lesson No. 1.5 AUTHOR : ASHWANI KUMAR

RATIO ANALYSIS

LESSON STRUCTURE:

1.5.1 OBJECTIVES:

To make appropriate decisions in keeping with the objectives of the firm, the financial manager must have analytical tools. The financial ratio analysis which is the subject matter of this chapter is such a tool. After going through this chapter, the students must be capable of analysing the financial data using ratio analysis.

1.5.2 Introduction to Ratio Analysis

To evaluate the financial performance of a company, the financial ratios are used as a very sophisticate tool. But, the type of analysis varies according to the specific interests of the party involved. Trade creditors are interested primarily in the liquidity of a firm. Their claims are short term, and the ability of a firm to pay these claims is best judged by means of a thorough analysis of its liquidity. The claims of bondholders, on the other hand, are long term. Accordingly, they are more interested in the cash-flow ability of the company to service debt over the long run.

The bondholder may evaluate this ability by analyzing the capital structure of the firm, the major sources and uses of funds, its profitability over time, and projections of future profitability.

Investors in a company's common stock are concerned principally with present and expected future earnings and the stability of these earnings about a trend, as well as their covariance with the earnings of other companies. As a result, investors might concentrate their analysis on a company's profitability. They would be concerned with its financial condition insofar as it affects the ability of the company to pay dividends and to avoid bankruptcy. In order to bargain more effectively for outside funds, the management of a firm should be interested in all aspects of financial analysis that outside suppliers of capital use in evaluating the firm. Management also employs financial analysis for purposes of internal control. In particular, it is concerned with profitability on investment in the various assets of the company and in the efficiency of asset management.

1.5.3 Use of Financial Ratios

For analysing the financial condition and performance of a company, the financial analyst needs certain yardsticks. The yardstick frequently used is a ratio, or index, relating two pieces of financial data to each other. Analysis and interpretation of various ratios should give experienced, skilled analysts a better understanding of the financial condition and performance of the firm than they would obtain from analysis of the financial data alone.

The analysis of financial ratios involves two types of comparison. First, the analyst can compare a present ratio with past and expected future ratios for the same company. The current ratio (the ratio of current assets to current liabilities) for the present year end could be compared with the current ratio for the preceding year end. When financial ratios are arrayed on a spreadsheet over a period of years, the analyst can study the composition of change and determine whether there has been an improvement or deterioration in the financial condition and performance over time. The above is termed as *trend analysis*. Financial ratios also can be computed for projected, or pro forma, statements and compared with present and past ratios. In the comparison over time, it is best to compare not only financial ratios but also the few figures.

The second method of comparison involves comparing the ratios of one firm with those of similar firms or with industry averages at the same point in time. Such a comparison gives insight into the relative financial condition and performance of the firm. Sometimes a company will not fit neatly into an industry category. In such situations, one should try to develop a set, albeit usually small, of peer firms for comparison purposes.

1.5.4 Limitations of Ratios

(1) Limited use of single Ratio : A single Ratio usually does not convey much of a sense. To move a better Interpretation a no. of Ratios have to be calculated.

(2) Lack of Adequate standards : There are no well accepted standards or rules of thumb for all Ratios which can be accepted.

(3) Change of Accounting procedure : Change in accounting procedure by a firm often moves ratio analysis misleading.

(4) Personal Bias : Ratios as only mean of financial analysis and net an end in itself. Ratios have to be Interpreted and different people may Interpret Same Ratios in different way.

1.5.5 Precaution in using Ratio Analysis

The analyst should avoid using rules of thumb indiscriminately for all industries. For example, the criterion that all companies should have at least a 2-to-1 current ratio is inappropriate. The analysis must be in relation to the type of business in which the firm is engaged and to the firm itself. The true test of liquidity is whether a company has the ability to pay its bills on time. Many sound companies, including electric utilities, have this ability despite current ratios substantially below 2 to 1. It depends on the nature of the business. Only by comparing the financial ratios of one firm with those of similar firms can one make a realistic judgement.

Similarly, analysis of the deviation from the norm should be based on some knowledge of the distribution of ratios for the companies involved. If the company being studied has a current ratio of 1.4 and the industry norm is 1.8, one would like to know the proportion of companies whose ratios are below 1.4. If it is only 2 per cent, we are likely to be much more concerned than if it is 25 per cent. Therefore, we need information on the dispersion of the distribution to judge the significance of the deviation of a financial ratio for a particular company from the industry norm.

Comparisons with the industry must be approached with caution. It may be that the financial condition and performance of the entire industry is less than satisfactory, and a company's being above average may not be sufficient. The company may have a number of problems on an absolute basis and should not take refuge in a favourable comparison with the industry. The industry ratios should not be treated as target asset and performance norms. Rather, they provide general

guidelines. For benchmark purposes, a set of firms displaying 'best practices' should be developed.

In addition, the analyst should realize that the various companies within an industry grouping may not be homogeneous. Companies with multiple product lines often defy precise industry categorization. They may be placed in the most 'appropriate' industry grouping, but comparison with other companies in that industry may not be consistent. Also, companies in an industry may differ substantially in size.

Because reported financial data and the ratios computed from these data are numerical, there is a tendency to regard them as precise portrayals of a firm's true financial status. Accounting data such as depreciation, reserve for bad debts, and other reserves are estimates at best and may not reflect economic depreciation, bad debts, and other losses. To the extent possible, accounting data from different companies should be standardized.

1.5.6 Types of Ratios

Financial ratios can be grouped into five types: liquidity, debt, profitability, coverage, and market-value ratios. No one ratio gives us sufficient information by which to judge the financial condition and performance of the firm. Only when we analyze a group of ratios we are able to make reasonable judgements. We must be sure to take into account any seasonal character of a business. Underlying trends may be assessed only through a comparison of raw figures and ratios at the same time of year. We would not compare a December 31 balance sheet with a May 31 balance sheet, but we would compare December 31 with December 31.

Although the number of financial ratios that might be computed increases geometrically with the amount of financial data, we concentrate only on the more important ratios in this lesson. Computing unneeded ratios adds both complexity and confusion to the problem. To illustrate the ratios discussed in this lesson, we use the balance sheet and income statements of a Hypothetical Manufacturing Company shown in Tables 1 and 2.

Table 3.1: Hypothetical Manufacturing Company's Balance Sheet

	March 31, 2005 (Rs.)	March 31, 2004 (Rs.)
Assets		
Cash and short-term investments	177689	175042
Accounts receivable	678279	740705
Inventories	1328963	1234725
Prepaid expenses	20756	17197

Deferred income taxes	35203	29165
Current assets	2240890	2196834
Property, plant, and equipment	159686	1538495
Less: Accumulated depreciation	856829	791205
	740057	747290
Investment, long term	65376	-
Other assets	205157	205624
Total assets	3251480	3149748
Liabilities and shareholders' equity		
Bank loans and notes payable	448508	356511
Accounts payable	148427	136793
Income taxes payable	36203	127455
Accruals	190938	164285
Current liabilities	824076	785044
Long-term debt	630783	626460
Shareholders' equity		
Common stock (Rs. 5 par value)	420828	420824
Additional paid-in capital	361158	361059
Retained earnings	1014635	956361
Total shareholders' equity	1796621	1738244
Total liabilities and equity	3251480	3149748

1.5.6.1 Liquidity ratios

Liquidity ratios are used to judge a firm's ability to meet short-term obligations. From them, much insight can be obtained into the present cash solvency of a company and its ability to remain solvent in the event of adversities. Essentially, we wish to compare short-term obligations with the short-term resources available to meet these obligations.

Table 2. Hypothetical Manufacturing Company's Statement of Earnings

	Year ended March 31, 2005 (Rs.)	Year ended march 31, 2004 (Rs.)
Net sales	3992758	3721241
Cost of goods sold	2680298	2499965
Selling,general,and administrative expenses	801395	726959
Depreciation	111509	113989
Interest expense	85274	69764
Earnings before taxes	314282	310564
Provision for taxes	113040	112356

Earnings after taxes	201242	198208
Cash dividends	142968	130455
Retained earnings	58274	67753

Current ratio

One of the most general and most frequently used liquidity ratios is the current ratio:

$$\frac{\text{Current assets}}{\text{Current liabilities}} \qquad (1)$$

For Hypothetical Manufacturing Co., the ratio for the 2005 year end is

$$\frac{\text{Rs. 2240890}}{\text{Rs. 824076}} = 2.72$$

The higher the current ratio, supposedly, the greater the ability of the firm to pay its bills. The ratio must be regarded as a crude measure of liquidity, however, because it does not take into account the liquidity of the individual components of the current assets. A firm having current assets composed principally of cash and current receivables is generally regarded as more liquid than a firm whose current assets consist primarily of inventories. Consequently, we must turn to 'finer' tools of analysis if we are to evaluate critically the liquidity of the firm. It is noteworthy that liquidity has been defined as the ability to realize value in money, the most liquid of assets. Liquidity has two dimensions: (1) the time required converting the asset into money and (2) the certainty of the price realized. To the extent that the price realized on receivables is as predictable as that realized on inventories, receivables would be a more liquid asset than inventories, owing to the shorter time required to convert the asset into money. If the price realized on receivables is more certain than is that on inventories, receivables would be regarded as being even more liquid.

Quick ratio

A somewhat more accurate guide to liquidity is the quick, or acid-test, ratio:

$$\frac{\text{Current assets less inventories}}{\text{Current liabilities}} \qquad (2)$$

For Hypothetical Co., this ratio is

$$\frac{\text{Rs. 2240890} - \text{Rs. 1328963}}{\text{Rs. 824076}} = 1.11$$

This ratio is the same as the current ratio, except that it excludes inventories– presumably the least liquid portion of current assets– from the numerator. The ratio concentrates on cash, marketable securities, and receivables in relation to current obligations and thus provides a more penetrating measure of liquidity than does the current ratio.

Liquidity of receivables

Sometimes there are suspected imbalances or problems in various components of the current assets. In these situations, the financial analyst will want to examine these components separately in assessing liquidity. Receivables, for example, may be far from current. Regarding all receivables as liquid when in fact a sizable portion may be past due, overstates the liquidity of the firm being analyzed. Receivables are liquid assets only insofar as they can be collected in a reasonable amount of time. For our analysis of receivables, we have two basic ratios, the first of which is the average collection period:

$$\frac{\text{Receivables} \times \text{Days in year}}{\text{Annual credit sales}} \qquad (3)$$

If we assume for Hypothetical that all sales are credit sales, this ratio is

$$\frac{\text{Rs. } 678279 \times 365}{\text{Rs. } 3992758} = 62 \text{ days}$$

The average collection period tells us the average number of days receivables is outstanding, that is, the average time it takes to convert them into cash.

The second ratio is the receivable turnover ratio:

$$\frac{\text{Annual credit sales}}{\text{Receivables}} \qquad (4)$$

For Hypothetical Co., this ratio is

$$\frac{\text{Rs. } 3992758}{\text{Rs. } 678279} = 5.89$$

These two ratios are reciprocals of each other. The number of days in the year, 365, divided by the average collection period, 62 days, gives the receivable turnover ratio, 5.89. The number of days in the year divided by the turnover ratio gives the average collection period. Thus, either of these two ratios can be employed.

Year-end versus average receivables- The receivable figure used in the calculation ordinarily represents year-end receivables. When sales are seasonal or have grown considerably over the year, using the year-end receivable balance may not be appropriate. With seasonality, an average of the monthly closing balances may be the most appropriate figure to use. With growth, the receivable balance at the end of the year will be deceptively high in relation to sales. The result is that the collection period calculated is a biased and high estimate of the time it will take for the receivable balance at year end to be collected. In this case, an average of receivables at the beginning and at the end of the year might be appropriate if the growth in sales were steady throughout the year. The idea is to relate the relevant receivable position to the relevant credit sales.

Interpreting the information- The average collection period ratio or the receivable turnover ratio indicates the slowness of receivables. Either ratio must be

analyzed in relation to the billing terms given on the sales. If the average collection period is 45 days and the terms are 2/10, net 30* the comparison would indicate that a sizable proportion of the receivables is past due beyond the final due date of 30 days. On the other hand, if the terms are 2/10, net 60, the typical receivable is being collected before the final due date. Too low an average collection period may suggest an excessively restrictive credit policy. The receivables on the books may be of prime quality, yet sales may be curtailed unduly- and profits less than they might be- because of this policy. In this situation, credit standards for an acceptable account should be relaxed somewhat. On the other hand, too high an average collection period may indicate too liberal a credit policy. As a result, a large number of receivables may be past due- some uncollectible. Here, too, profits may be less than those possible, because of bad-debt losses and the need to finance a large investment in receivables. In this case, credit standards should be raised.

Aging of accounts- Another means by which we can obtain insight into the liquidity of receivables is through an aging of accounts. With this method, we categorize the receivables at a moment in time according to the proportions billed in previous months. We might have the following hypothetical aging of accounts receivable at December 31.

Month	December	November	October	September	August and before	Total
Proportion of Receivables billed	67%	19%	7%	2%	5%	100%

If the billing terms are 2/10, net 30, this aging tells us that 67 per cent of the receivables at December 31 are current, 19 per cent are up to 1 month past due, 7 per cent are 1 to 2 months past due, and so on. Depending on the conclusions drawn from our analysis of the aging, we may want to examine more closely the credit and collection policies of the company. In the example, we might be prompted to investigate the individual receivables that were billed in August and before, in order to determine if any should be charged off. The receivables shown on the books are only as good as the likelihood that they will be collected. An aging of accounts receivables gives us considerably more information than the calculation of the average collection period because it pinpoints the trouble spots more specifically.

* The notation means that the supplier gives a 2 per cent discount if the receivable invoice is paid within 10 days and that payment is due within 30 days if the discount is not taken.

Duration of payables

From a creditor's standpoint, it would be desirable to obtain an aging of accounts payable. However, few customers are willing to provide such information, and many will resent being asked. Nonetheless, we often are able to compute the average age of a company's accounts payable. The average payable period is

$$\frac{\text{Accounts payable} \times 365}{\text{Purchases}}$$

where accounts payable is the average balance outstanding for the year and the denominator is external purchases during the year.

When information on purchases is not available, one can occasionally use the cost of goods sold in the denominator. A department store chain, for example, typically does no manufacturing. As a result, the cost of goods sold consists primarily of purchases. However, in situations where there is sizable value added, such as with a manufacturer, the use of the cost of goods sold is inappropriate. One must have the amount of purchases if the ratio is to be used. Another caveat has to do with growth. As with receivables, the use of a year-end payable balance will result in a biased and high estimate of the time it will take a company to make payment on its payables if there is strong underlying growth. In this situation, it may be better to use an average of payables at the beginning of the year and at the end.

The average payable period is valuable in evaluating the probability that a credit applicant will pay on time. If the average age of payables is 48 days, and the terms in the industry are net 30, we know that a portion of the applicant's payables are not being paid on time. A credit check of other suppliers will give insight into the severity of the problem.

Liquidity of inventories

We may compute the inventory turnover ratio as an indicator of the liquidity of inventory

$$\frac{\text{Cost of goods sold}}{\text{Average inventory}}$$

For Hypothetical, the ratio is

$$\frac{\text{Rs. } 2680298}{(\text{Rs. } 1328963 + \text{Rs. } 1234725)/2} = 2.09$$

The figure for cost of goods sold used in the numerator is for the period being studied- usually 1 year; the average inventory figure used in the denominator typically is an average of beginning and ending inventories for the period. The inventory turnover ratio tells us the rapidity with which the inventory is turned over into receivables through sales. This ratio, like other ratios, must be judged in

relation to past and expected future ratios of the firm and in relation to ratios of similar firms, the industry average, or both.

Generally, the higher the inventory turnover, the more efficient the inventory management of a firm. Sometimes a relatively high inventory turnover ratio may be the result of too low a level of inventory and frequent stock outs. It might also be the result of too many small orders for inventory replacement. Either of these situations may be more costly to the firm than carrying a larger investment in inventory and having a lower turnover ratio. Again, caution is necessary in interpreting the ratio. When the inventory turnover ratio is relatively low, it indicates slow-moving inventory or obsolescence of some of the stock. Obsolescence may necessitate substantial write-downs, which, in turn, would negate the treatment of inventory as a liquid asset. Because the turnover ratio is a somewhat crude measure, we would want to investigate any perceived inefficiency in inventory management. In this regard, it is helpful to compute the turnover of the major categories of inventory to see if there are imbalances, which may indicate excessive investment in specific components of the inventory. Once we have a hint of a problem, we must investigate it more specifically to determine its cause.

1.5.6.2 Debt (or leverage) ratios

Extending our analysis to the long-term liquidity of the firm (that is, its ability to meet long-term obligations), we may use several debt ratios. The debt-to-equity ratio is computed by simply dividing the total debt of the firm (including current liabilities) by its shareholders' equity:

$$\frac{\text{Total debt}}{\text{Shareholders' equity}}$$

For Hypothetical, the ratio is

$$\frac{\text{Rs. } 1454859}{\text{Rs. } 1796621} = 0.81$$

When intangible assets are significant, they frequently are deducted from shareholders' equity.

The ratio of debt to equity varies according to the nature of the business and the volatility of cash flows. An electric utility, with very stable cash flows, usually will have a higher debt ratio than will a machine tool company, whose cash flows are far less stable. A comparison of the debt ratio for a given company with those of similar firms gives us a general indication of the creditworthiness and financial risk of the firm.

In addition to the ratio of total debt to equity, we may compute the following ratio, which deals with only the long-term capitalization of the firm:

$$\frac{\text{Long-term debt}}{\text{Total capitalization}}$$

where total capitalization represents all long-term debt, preferred stock, and share-holders' equity. For Hypothetical, the ratio is

$$\frac{\text{Rs. } 630783}{\text{Rs. } 2427404} = 0.26$$

This measure tells us the relative importance of long-term debt in the capital structure. The ratios computed here have been based on book-value figures; it is sometimes useful to calculate these ratios using market values. In summary, debt ratios tell us the relative proportions of capital contribution by creditors and by owners.

Cash flow to debt and capitalization

A measure of the ability of a company to service its debt is the relationship of annual cash flow to the amount of debt outstanding. The cash flow of a company often is defined as the cash generated from the operation of the company. This is defined as earnings before interest, taxes and depreciation (EBITD). The cash-flow-to-total-liabilities ratio is simply

$$\frac{\text{Cash flow (EBITD)}}{\text{Total liabilities}}$$

For Hypothetical Co., the ratio is

$$\frac{\text{Rs. } 511065}{\text{Rs. } 1454859} = 0.35$$

The cash flow is composed of earnings before taxes, Rs. 314282, plus interest, Rs. 85274, and depreciation, Rs. 111509. This ratio is useful in assessing the creditworthiness of a company seeking debt funds.

Another ratio is the cash-flow-to-long-term-debt ratio-

$$\frac{\text{Cash flow (EBITD)}}{\text{Long-term debt}}$$

Here we have the following for Hypothetical Co. Ltd.:

$$\frac{\text{Rs. } 511065}{\text{Rs. } 630783} = 0.81$$

This ratio is used to evaluate the bonds of a company. The two cash-flow ratios just described have proven useful in predicting the deteriorating financial health of a company.

This is particularly helpful in corporate restructuring, where heavily levered transactions occur. Another ratio often used in this regard is total interest-bearing debt plus equity in relation to operating cash flows known as the enterprise value-to-EBITD ratio, it can be expressed as

$$\frac{\text{Total borrowings + Equity}}{\text{Cash flow (EBITD)}}$$

For Hypothetical Co., this ratio is

$$\frac{\text{Rs. } 2875912}{\text{Rs. } 511065} = 5.63$$

where bank loans, notes payable, and long-term debt represent total borrowings. The higher this ratio, the greater the value that is being placed on the securities. Lenders in highly levered transactions become concerned when the ratio exceeds 8, as the possibility of default has been found to be significant at this point.

1.5.6.3 Coverage ratios

Coverage ratios are designed to relate the financial charges of a firm to its ability to service them. Bond-rating services, such as CRISIL, ICRA, Moody and Standard and Poor's, make extensive use of these ratios.

Interest coverage ratio

Interest coverage ratio is one of the most traditional of the coverage ratios. The ratio of earnings before interest and taxes for a particular reporting period to the amount of interest charges for the period is known as interest coverage ratio. We must differentiate which interest charges should be used in the denominator. The *overall coverage method* stresses a company's meeting all fixed interest, regardless of the seniority of the claim. We have the following financial data for a hypothetical company:

Average earnings before interest and taxes	Rs. 2,000,000
Interest on senior 7% bonds	- 400,000
	Rs. 1,600,000
Interest on junior 8% bonds	160,000

The overall interest coverage would be Rs. 2,000,000/Rs. 560,000, or 3.57. This method implies that the creditworthiness of the senior bonds is only as good as the firm's ability to cover all interest charges.

Of the various coverage ratios, the most objectionable is the prior deductions method. Using this method, we deduct interest on the senior bonds from average earnings and then divide the residual by the interest on the junior bonds. We find that the coverage on the junior bonds in our example is 10 times (Rs. 1600000/Rs. 160000). Thus, the junior bonds give the illusion of being more secure than the senior obligations. Clearly, this method is inappropriate. The cumulative deduction method, perhaps, is the most widely used method of computing interest coverage. Under this method, coverage for the senior bonds would be 5 times. Coverage for the junior bonds is determined by adding the interest charges on both bonds and relating the total to average earnings. Thus, the coverage for the junior bonds would be Rs. 2000000/Rs. 560000 = 3.57 times.

Cash-flow coverage ratios

This ratio involves the relation of earnings before interest, taxes, and depreciation (EBITD) to interest and to interest plus principal payments. For the cash-flow coverage of interest we have

$$\frac{\text{EBITD}}{\text{Annual interest payments}} \qquad (12)$$

Cash flow is very useful in determining whether a borrower is going to be able to service interest payments on a loan. Even for highly levered transactions, lenders want a coverage ratio comfortably above 2.0. The EBITD interest coverage ratio is highly correlated with bond ratings and the market's assessment of risk. To be investment grade, that is, AAA, AA, A, or BBB, the ratio for an industrial corporation usually must be above 4.0.

The limitations of an interest coverage ratio are that a firm's ability to service debt is related to both interest and principal payments. Moreover, these payments are not met out of earnings per se, but out of cash. Hence, a more appropriate coverage ratio relates the cash flow of the firm to the sum of interest and principal payments. The cash-flow coverage of interest and principal ratio may be expressed as-

$$\frac{\text{EBITD}}{\text{Interest} + \text{Principal payments } [1/(1 - t)]}$$

where X is the income tax rate and principal payments are annual. Because principal payments are made after taxes, it is necessary to gross them up so that they correspond to interest payments, which are made before taxes. If the tax rate were 40 percent and annual principal payments Rs. 120,000, before-tax earnings of Rs. 200,000 would be needed to cover these payments. If the company has preferred stock outstanding, the stated dividend on this stock, grossed up by 1 minus the tax rate, should appear in the denominator of Equation 13.

For measuring the financial risk of a firm, the financial analyst should first compute the debt ratios as a rough measure of financial risk. Depending on the payment schedule of the debt and the average interest rate, debt ratios may or may not give an accurate picture of the ability of the firm to meet its financial obligations. Therefore, it is necessary to analyze additionally the cash-flow ability of the company to service debt. This is done by relating cash flow not only to the amount of debt outstanding but also to the amount of financial charges. Neither debt ratios nor coverage ratios are sufficient by themselves.

1.5.6.4 Profitability ratios

There are two types of profitability ratios: (i) those showing profitability in relation to sales, and (ii) those showing profitability in relation to investment. Together these ratios indicate the firm's efficiency of operation.

Profitability in relation to sales

$$\text{Gross profit margin} = \frac{\text{Sales less cost of goods sold}}{\text{Sales}} \qquad (14)$$

For Hypothetical, the gross profit margin is

$$\frac{\text{Rs. } 1312460}{\text{Rs. } 3992758} = 32.9\%$$

Gross profit margin ratio tells us the profit of the firm relative to sales after we deduct the cost of producing the goods sold. It indicates the efficiency of operations as well as how products are priced. A more specific ratio of profitability is the net profit margin:

$$\frac{\text{Net profits after taxes}}{\text{Sales}} \qquad (15)$$

For Hypothetical, this ratio is

$$\frac{\text{Rs. } 201242}{\text{Rs. } 3992758} = 5.04\%$$

This ratio tells us the relative efficiency of the firm after taking into account all expenses and income taxes, but not extraordinary charges.

Profitability in relation to investment

The group of profitability ratios relates profits to investments. One of these measures is the rate of return on equity, or the ROE:

$$\frac{\text{Net profits after taxes} - \text{Preferred stock dividend}}{\text{Shareholders' equity}}$$

For Hypothetical Co., the rate of return is

$$\frac{\text{Rs. } 201242}{\text{Rs. } 1796621} = 11.2\%$$

The rate of return on equity tells us the earning power on shareholders' book investment and is frequently used in comparing two or more firms in an industry. The figure for share-holders' equity used in the ratio may be expressed in terms of market value instead of book value. When we use market value, we obtain the earnings/price ratio of the stock.

A more general ratio used in the analysis of profitability is the return on assets, or the ROA:

$$\frac{\text{Net profits after taxes}}{\text{Total assets}} \qquad (16)$$

For Hypothetical Co., the ratio is

$$\frac{\text{Rs. } 201242}{\text{Rs. } 3251480} = 6.19\%$$

ROA ratio is somewhat inappropriate, in a much as profits are taken after interest is paid to creditors. Because these creditors provide means by which part of the total assets are supported, there is a fallacy of omission. When financial charges are significant, it is preferable, for comparative purposes, to compute a net operating profit rate of return instead of a return on assets ratio. The net operating profit rate of return may be expressed as

$$\frac{\text{Earnings before interest and taxes}}{\text{Total assets}} \qquad (17)$$

Using this ratio, we are able to abstract from differing financial charges (interest and preferred stock dividends). Thus, the relationship studied is independent of the way the firm is financed.

Assets turnover ratio

Generally, the financial analyst relates total assets to sales to obtain the asset turnover ratio:

$$\frac{\text{Sales}}{\text{Total assets}} \qquad (18)$$

Hypothetical Co. turnover for the 2005 fiscal year was

$$\frac{\text{Rs. } 3992758}{\text{Rs. } 3251480} = 1.23$$

Assets turnover ratio tells us the relative efficiency with which the firm utilizes its resources in order to generate output. It varies according to the type of company being studied. A food chain has a considerably higher turnover, for example, than does an electric utility. The turnover ratio is a function of the efficiency with which the various asset components are managed: receivables as depicted by the average collection period, inventories as portrayed by the inventory turnover ratio, and fixed assets as indicated by the plant or the sales to net fixed asset ratio.

Earning power

When we multiply the asset turnover of the firm by the net profit margin, we obtain the return on assets ratio, or earning power on total assets:

$$\text{Earning power} = \frac{\text{Sales}}{\text{Total assets}} \times \frac{\text{Net profits after taxes}}{\text{Sales}} \qquad (19)$$

$$= \frac{\text{Net profits after taxes}}{\text{Total assets}}$$

For Hypothetical Co., we have

$$\frac{\text{Rs. } 3992758}{\text{Rs. } 3251480} \times \frac{\text{Rs. } 201242}{\text{Rs. } 3992758} = 6.19\%$$

None of these two ratios (the net profit margin and the turnover ratio) by itself provides an adequate measure of operating efficiency. The net profit margin ignores the utilization of assets, whereas the turnover ratio ignores profitability on sales. The return on assets ratio, or earning power, resolves these shortcomings. An improvement in the earning power of the firm will result if there is an increase in turnover, an increase in the net profit margin, or both. Two companies with different asset turnovers and net profit margins may have the same earning power. Firm A, with an asset turnover of 4 to 1 and a net profit margin of 3 per cent, has the same earning power – 12 per cent- as firm B, with an asset turnover of $1\frac{1}{2}$ to 1 and a net profit margin of 8 per cent.

Another way to look at the return on equity (ROE) is

$$\text{ROE} = \text{Earning power} \times \left(1 + \frac{\text{Debt}}{\text{Equity}}\right) \qquad (20)$$

In this equation, earning power is grossed up by the equity multiplier associated with the use of debt. For Hypothetical Co.

ROE = 6.19% × 1.81 = 11.20%.

With all the profitability ratios, comparing one company with similar companies is valuable. Only by comparison are we able to judge whether the profitability of a particular company is good or bad, and why. Absolute figures provide insight, but relative performance is most revealing.

1.5.6.5 Market-value ratios

We do find several widely used ratios that relate the market value of a company's stock to profitability, to dividends, and to book equity.

Price/earnings ratio

The price/earnings ratio of a company is simply

$$\text{P/E ratio} = \frac{\text{Share price}}{\text{Earnings per share}} \qquad (21)$$

Here, earnings per share (EPS) usually are the trailing 12 months of earnings. However, security analysts sometimes use estimated EPS for the next 12 months. Suppose Hypothetical Manufacturing Company has a share price of Rs. 38. With a par value of Rs. 5 per share at 2005 fiscal year end in Table 1, there are 84165600 shares outstanding. Therefore, earnings per share are earnings after taxes divided by number of shares outstanding, or Rs. 201242000/84165600 = Rs. 2.39. The P/E ratio for Hypothetical Co. is

$$\frac{\text{Rs. } 38.00}{\text{Rs. } 2.39} = 15.9 \text{ times}$$

In fact, the P/E ratio is considered as one measure of relative value. The higher this ratio, the more the value of the stock that is being ascribed to future earnings as opposed to present earnings. That is to say, likely future growth is what is being valued. During the last 20 years, the P/E ratio for Standard and Poor's 500 stock indexes has ranged from 8 to 28. The ratio reflects a number of things including interest rates, growth expectations for stocks in general.

Dividend Yield

The dividend yield for a stock relates the annual dividend to share price. Therefore,

$$\text{Dividend yield} = \frac{\text{Dividends per share}}{\text{Share price}} \qquad (22)$$

Going to Tables 1 and 2, we determine that dividends per share for the 2005 fiscal year are Rs. 1.70. Therefore, the dividend yield for Hypothetical is

$$\frac{\text{Rs. 1.70}}{\text{Rs. 38.00}} = 4.47\%$$

Noteworthy it is that companies with good growth potential retain a high proportion of earnings and have a low dividend yield, whereas companies in more mature industries pay out a high portion of their earnings and have a relatively high dividend yield. Hypothetical Co. falls in the latter category.

Market-to-Book Value Ratio

The final market-value ratio we consider relates market value per share to book value

$$\text{M/B ratio} = \frac{\text{Share price}}{\text{Book value per share}} \qquad (23)$$

where M/B ratio is the market-to-book value ratio. Going again to Table 1, we divide shareholders' equity by the number of shares outstanding to get a book value per share of Rs. 21.35. Therefore, for Hypothetical Co., we have

$$\text{M/B ratio} = \frac{\text{Rs. 38.00}}{\text{Rs. 21.35}} = 1.78$$

The market-to-book value ratio is a relative measure of how the growth option for a company is being valued vis-à-vis its physical assets. The greater the expected growth and value placed on such, the higher this ratio. M/B ratios for established companies range from as little as 0.5 to as high as 8.0. The former often is associated with a company that earns less than what the financial markets require, a harvest situation, and the latter with a company that earns substantially more through industry attractiveness and/or competitive advantage.

1.5.7 Illustrative problems

Problem 1. X Co. has made plans for the next year. It is estimated that the company will employ total assets of Rs. 8, 00,000; 50 per cent of the assets being

financed by borrowed capital at an interest cost of 8 per cent per year. The direct costs for the year are estimated at Rs. 4, 80,000 and all other operating expenses are estimated at Rs. 80,000. The goods will be sold to customers at 150 per cent of the direct costs. Tax rate is assumed to be 50 per cent.

You are required to calculate: (i) net profit margin; (ii) return on assets; (iii) assets turnover and (iv) return on owners' equity.

Solution.

The net profit is calculated as follows:

	Rs.	Rs.
Sales (150% of Rs. 4, 80,000)		7, 20,000
Direct costs		4, 80,000
Gross profit		240000
Operating expenses	80,000	
Interest charges (8% of Rs. 4, 00,000)	32,000	1, 12,000
Profit before taxes		1, 28,000
Taxes (@ 50%)		64,000
Net profit after taxes		64,000

(i) Net profit margin = $\frac{\text{Profit after taxes}}{\text{Sales}} = \frac{\text{Rs. 64000}}{\text{Rs. 720000}} = 0.089$ or 8.9%

(ii) Return on assets = $\frac{\text{EBIT (1 - T)}}{\text{Assets}} = \frac{160000\ (1 - 0.5)}{800000} = 0.10$ or 10%

(iii) Assets turnover = $\frac{\text{Sales}}{\text{Assets}} = \frac{\text{Rs. 720000}}{\text{Rs. 800000}} = 0.9$ times

(iv) Return on equity = $\frac{\text{Net profit after taxes}}{\text{Owners' equity}} = \frac{\text{Rs. 64000}}{\text{50\% of Rs. 800000}}$

$= \frac{\text{Rs. 64000}}{\text{Rs. 400000}} = 0.16$ or 16%

Problem 2. The total sales (all credit) of a firm are Rs. 6, 40,000. It has a gross profit margin of 15 per cent and a current ratio of 2.5. The firm's current liabilities are Rs. 96,000; inventories Rs. 48,000 and cash Rs. 16,000. (a) Determine the average inventory to be carried by the firm, if an inventory turnover of 5 times is expected? (Assume a 360-day year), (b) Determine the average collection period if the opening balance of debtors is intended to be of Rs. 80,000? (Assume a 360-day year).

Solution.

(a) Inventory turnover = $\frac{\text{Cost of goods sold}}{\text{Average inventory}}$

Since gross profit margin is 15 per cent, the cost of goods sold should be 85 per cent of the sales.

Thus, Cost of goods sold = 0.85 × Rs. 640000 = Rs. 544000.

$$= \frac{\text{Rs. } 544000}{\text{Av. inventory}} = 5$$

$$\text{Average inventory} = \frac{\text{Rs. } 544000}{5} = \text{Rs. } 1,08,800$$

(b) Average collection period: $\frac{\text{Average debtors}}{\text{Credit sales}} \times 360$

Average Debtors = (op. Debtors + cl. Debtors)/2

Closing balance of debtors is found as follows:

Current assets (2.5 of current liabilities)		Rs. 2, 40,000
Less: Inventories	Rs. 48,000	
Cash	16,000	64,000
Debtors		Rs. 1, 76,000

Average debtors = (Rs. 1, 76,000 + Rs. 80,000)/2 = Rs. 1, 28,000

$$\text{Average collection period} = \frac{\text{Rs. } 128000}{\text{Rs. } 640000} \times 360 = 72 \text{ days}$$

Problem 3. The following figures relate to the trading activities of Hind Traders Limited for the year ended 30th June, 2004:

Table 3. Hind Traders Limited

	Rs.		Rs.
Sales	15,00,000	*Administrative expenses*	
Purchases	9,66,750	Salaries	81,000
Opening stock	2,28,750	Rent	8,100
Closing stock	2,95,500	Stationery, postage, etc.	7,500
Sales returns	60,000	Depreciation	27,900
Selling and distribution expenses		Other charges	49,500
Salaries	45,900	Provision for taxation	1,20,000
Advertising	14,100	Non-operating income	
Travelling	6,000	Dividend on shares	27,000
Non-operating expenses		Profit on sale of shares	9,000
Loss on sale of assets	12,000		

You are required to (1) rearrange the above figures in a form suitable for analysis, and (2) show separately the following ratios: (i) gross profit ratio; (ii) operating ratio; (iii) stock turnover ratio.

Solution.

Table 4. Hind Traders Ltd.

Profit and Loss Statement		
		Rs.
Sales (less returns)		15, 00,000
Less: Cost of goods sold:		
Opening stock	2, 28750	
Purchases	9, 66,750	
	11, 95,500	
Less: Closing stock	2, 95,500	9, 00,000
Gross profit		6, 00,000
Operating expenses		
Selling and distribution expenses	66,000	
Administrative expenses	1, 74,000	2, 40,000
Operating net profit		3, 60,000
Non-operating income	36,000	
Non-operating expenses	12,000	24,000
Profit before tax		3, 84,000
Provision for taxes		1, 20,000
		2, 64,000

(a) Gross profit ratio = $\frac{\text{Rs. 600000}}{\text{Rs. 1500000}}$ = 0.40 or 40%

(b) Operating ratio = $\frac{\text{Cost of goods+Operating expenses}}{\text{Sales}} = \frac{\text{Rs. 1140000}}{\text{Rs.1500000}}$ = 0.76 or 76%

(c) Stock turnover ratio= $\frac{\text{Cost of goods sold}}{\text{Average stock}} = \frac{\text{Rs. 900000}}{\text{Rs. 262125}}$ = 3.43 times

Problem 4. Towards the end of 2004 the directors of Wholesale Merchants Ltd. decided to expand their business. The annual accounts of the company for 2004 and 2005 may be summarised as follows:

Table. Wholesale Merchants Ltd

Financial statements		(Rs.)
	Year 2004	Year 2005
Sales:		
Cash	42,000	44,800

Credit	3,78,000		4,78,800	
		4,20,000		5,23,600
Cost of sales		3,30,400		4,17,200
Gross margin		89,600		1,06,400
Expenses:				
Warehousing		18,200		19,600
Transport		8,400		14,000
Administration		26,600		26,600
Selling		15,400		19,600
Debenture interest		-		2,800
		68,600		82,600
Net profit		21,000		23,800
Fixed assets (*Less:* depreciation)		42,000		56,000
Current assets				
Stock	84,000		1,31,600	
Debtors	70,000		1,14,800	
Cash	14,000	1,68,000	9,800	2,56,200
Less: Current liabilities		70,000		1,06,400
Net current assets		98,000		1,49,800
Net assets		1,40,000		2,05,800
Share capital		1,05,000		1,05,000
Reserves and undistributed profit		35,000		58,000
Debenture loan		-		42,000
Capital employed		1,40,000		2,05,800

You are informed that: (a) All sales were from stocks in the company's warehouse. (b) The range of merchandise was not changed and buying prices remained steady throughout the two years. (c) Budgeted total sales for 2002 were Rs. 3, 90,000. (d) The debenture loan was received on 1st January 2002, and additional fixed assets were purchased on that date.

You are required to state the internal accounting ratios that you would use in this type of business to assist the management of the company in measuring the efficiency of its operation, including its use of capital.

Your answer should name the ratios and give the figures (calculated to one decimal place) for 2004 and 2005, together with possible reasons for changes in the ratios for the two years. Ratios relating to capital employed should be based on the capital at the end. Ignore taxation.

Solution. The following ratios are calculated for Wholesale Merchants Ltd.:

Table. Ratios for wholesale merchant ltd.

	Ratios	(Rs. '000)	Year 2004	(Rs' 000)	Year 2005
1.	Net margin: EBIT/Sales	21,000/4,20,000	5.0%	26,600/5,23,600	5.1%
2.	Sales to capital employed	4,20,000/1,40,000	3.0 times	5,23,600/2,05,800	2.5 times
3.	Return on capital employed: EBIT/CE	21,000/1,40,000	15.0%	26,600/2,05,800	12.9%
4.	Gross margin: gross profit/sales	89,600/4,20,000	21.3%	1,06,400/5,23,600	20.3%
5.	Expenses (excluding interest) to sales	68,600/4,20,000	16.3%	79,800/5,23,600	15.2%
6.	Stock turnover: CGS/Stock	3,30,400/84,000	3.9 times	4,17,200/1,31,600	3.2 times
7.	Debtors turnover: credit sales/debtors	3,78,000/70,000	5.4 times	4,78,800/1,14,800	4.2 times
8.	Current ratio: CA/CL	1,68,000/70,000	2.4 times	2,56,200/1,06,400	2.4 times
9.	Quick ratio: CA-Stock/CL	84,000/70,000	1.2 times	1,24,600/1,06,400	1.2 times
10.	Long-term debt-equity		0	42,000/1,63,800	0.3

Note: EBIT for 2004 and 2005 respectively is: Rs. 21,000 + 0 = Rs. 21,000 and Rs. 23,800 + 2,800 = Rs. 26,600.

Comments. The return on capital employed has fallen from 15% in 2004 to 12.9% in 2005. The reason lies in the sales to capital ratio which has also fallen in 2005. The increase in capital employed has not been profitably utilised. The increased capital seems to have been blocked in stock and debtors.

It will be noticed that the gross margin ratio decreased from 21.3% in 2004 to 20.3% in 2005. This may be attributed to reduced selling price or granting of trade discounts on bulk orders. The operating ratio (expense to sales ratio) has fallen in 2004 by 1% and this had a slight impact on net profit ratio which has increased by 0.1%.

The short-term solvency of the company, reflected by current ratio and quick ratio, is more or less constant. However, there has been deterioration in the stock

turnover and debtors turnover ratios. This implies the company is holding stocks for longer periods and allowing longer credit periods to customers.

There is no threat to the long-term solvency of the company. It did not use any long-term debt in 2004. A debenture loan of Rs. 42,000 is taken in 2005 and is about 0.26 of the equity funds. By a normal criterion, the company could have a debt equity ratio of 2: 1.

1.5.8 Summary

Financial ratios can be derived from the balance sheet and the income statement. They are categorized into five types: liquidity, debt, coverage, profitability, and market value. Each type has a special use for the financial or security analyst. The usefulness of the ratios depends on the ingenuity and experience of the financial analyst who employs them. By themselves, financial ratios are fairly meaningless; they must be analyzed on a comparative basis.

A comparison of ratios of the same firm over time uncovers leading clues in evaluating changes and trends in the firm's financial condition and profitability. The comparison may be historical and predictive. It may include an analysis of the future based on projected financial statements. Ratios may also be judged in comparison with those of similar firms in the same line of business and, when appropriate, with an industry average. From empirical testing in recent years, it appears that financial ratios can be used successfully to predict certain events, bankruptcy in particular. With this testing, financial ratio analysis has become more scientific and objective than ever before, and we can look to further progress in this regard.

1.5.9 Glossary

1. ROA: return on Assets
2. ROE: Return on Equity
3. EPS: Earning per share

1.5.10 Exercise Questions

1. Explain the need for the financial analysis. How does the use of ratios help in financial analysis?
2. Is it possible for a firm to have a high current ratio and still find difficulties in paying its current debt? Explain with illustration.
3. What are the leverage, or capital-structure, ratios? Explain the significance and limitations of the debt-equity ratio as a measure of the firm's solvency?
4. Why is it necessary to calculate the profitability ratios in relation to sales? Illustrate your answer.
5. Explain the calculation and significance of the various measures of rate of return on investment.
6. Explain the ratios which you, as an analyst, will focus your attention to in the following cases:
   (i) A bank is approached by a company for a loan of Rs. 50 lakh for working-capital purposes.

(ii) A company requests a financial institution to grant a 10-year loan of Rs. 5 crore.

7. Which of the financial ratios of a company would you most likely refer to in each of the following situations? Give reasons.
   (i) The company asks you to sell material on credit.
   (ii) You are thinking of investing Rs. 25,000 in the company's debentures.
   (iii) You are thinking of investing Rs. 25,000 in the company's shares.
8. "A higher rate of return on capital employed implies that the firm is managed efficiently." Is this true in every situation? What or why not?
9. Ratios are generally calculated from historical data. Of what use are they in assessing the firm's future financial condition?
10. A firm's sales are Rs. 4, 50,000, cost of goods sold is Rs. 2, 40,000 and inventory is Rs. 90,000. What is its turnover? Also, calculate the firm's gross margin.
11. The only current assets possessed by a firm are: cash Rs. 1, 05,000, inventories Rs. 5, 60,000 and debtors Rs. 4, 20,000. If the current ratio for the firm is 2-to-1, determine its current liabilities. Also, calculate the firm's quick ratio.
12. High-Low Plumbing Company sells plumbing fixtures on terms of 2/10 net 30. Its financial statements over the last 3 years follow:

	Amount (Rs.)		
	2003	2004	2005
Cash	30,000	20,000	5,000
Accounts receivable	200,000	260,000	290,000
Inventory	400,000	480,000	600,000
Net fixed assets	800,000	800,000	800,000
	1,430,000	1,560,000	1,695,000
Accounts payable	230,000	300,000	380,000
Accruals	200,000	210,000	225,000
Bank loan, short term	100,000	100,000	140,000
Long-term debt	300,000	300,000	300,000
Common stock	100,000	100,000	100,000
Retained earnings	500,000	550,000	550,000
	1,430,000	1,560,000	1,695,500
Sales	4,000,000	4,300,000	3,800,000
Cost of goods sold	3,200,000	3,600,000	3,300,000
Net profit	300,000	200,000	100,000

Using the ratios taken up in the chapter, analyze the company's financial condition and performance over the last 3 years. Are there any problems?

Write short note:

1. What is market value ratio.
2. Explain current ratio.

1.5.11 Suggested Readings

1. Jain and Khan: Management Accounting, TMH, Delhi.
2. Pandey, I.M.: Financial Management, Vikas Publishing House, Delhi.
3. Periasamy, P.: Financial, Cost and Management Accounting, HPH, Delhi.
4. Maheshwari, S.N.: Accounting for Management and Control, Sultan Chand and Sons, Delhi.
5. Van Horne: Financial Management and Analysis, Pearson Publication, Delhi.

Mandatory Student Feedback Form

https://forms.gle/KS5CLhvpwrpgjwN98

Note: Students, kindly click this google form link, and fill this feedback form once.