Block-II

Foundations of Accounting and Finance

Financial Statements and Analysis

Foundations of Accounting and Finance

Block

II

FINANCIAL STATEMENTS AND ANALYSIS

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BLOCK II FINANCIAL STATEMENTS AND ANALYSIS

This block provides an insight into the Financial Statement of Companies. There is a greater need for transparency and disclosure of all material information in case of financial statements of companies as they involve public money. With this requirement, these statements need to adhere to the statutory guidelines provided under Companies Act, 2013. This block discusses the preparation and presentation of the financial statements of companies. It also covers the Introduction to Financial Statement Analysis and Financial Ratio Analysis which are the tools through which the financial information contained in the financial statements is interpreted for decision making by stakeholders. This block consists of three units.

Unit 4 Financial Statements of Companies outlines the requirements governing the financial statement of companies. It deals with the preparation and presentation of profit and loss account, profit and loss appropriation account, and the format of corporate balance sheet along with the treatment of special items there in.

Unit 5 Introduction to Financial Statement Analysis describes the nature of financial statement analysis, the need, importance and purpose of financial statement analysis and the information needs of different users of financial statements. It also deals with sources of financial statement analysis, tools and techniques of financial statement analysis and discusses the limitations of such analysis.

Unit 6 Financial Ratio Analysis explains the importance of ratio analysis as an effective tool of financial analysis. The unit gives the classification of ratios and also deals with the limitations of financial ratios.

The financial statements of companies and the analysis of financial statements are illustrated with the help of the latest financial statements of Infosys Limited and Tata Steel Limited. The Units have been revised with updated exhibits related to financial statements. For easier understanding of the learner, check your progress questions and activities have been given within each unit.

Unit 4

Financial Statements of Companies

Structure

4.1 Introduction

In the previous unit "Elements of Financial Statements "we discussed the concept of capital expenditure and revenue expenditure, nuances to be noted in preparation trial balance, P&L statement, and balance sheet. This unit discusses the important points to be noted in preparation of financial statements for companies. Financial Statements are the basic and formal means of communicating financial information related to outsiders, especially shareholders. With the growing significance given to transparency and disclosure in the presentation of financial information, companies are increasing emphasis on the presentation of the information in an easy manner enabling transparency. These factors have resulted in changes in the form and content of Financial Statements. The Financial statements of a company consist of the Statement of Profit and Loss, Balance Sheet and the Cash Flow Statement.

In this unit, we shall discuss the preparation, presentation and disclosure requirements regarding a joint stock company's financial statements as per the provisions of Companies Act, 2013 and the various components of such statements.

4.2 Objectives

After reading through the unit, the student should be able to:

- Describe the legal requirements of the Companies Act, 2013 governing financial statements and reporting.
- State the specific disclosure and presentation requirements as to the Statement of Profit and Loss as per Schedule III, Part II.

- Display the format, contents, and disclosure requirements of Corporate Balance Sheet as per Schedule III, Part I.
- Explain the treatment of Specific Items in relation to the financial statements of companies, like depreciation, dividends, managerial remuneration, etc.

4.3 Statutory Requirements Governing Financial Statements

In India, the format and contents of the Financial Statements of companies is governed by the provisions of the Companies Act, 2013. The relevant sections of the Act containing the provisions are provided below:

4.3.1 Legal Requirements as to the Submission of Financial Statements

Section 129 of the Companies Act, 2013 specifies the following regarding the annual accounts to be drawn up by a company:

a. At every Annual General Meeting of the shareholders, the Board of Directors of the company should lay before the shareholders, a balance sheet as at the end of the accounting period which has just ended and a statement of profit and loss for such accounting period.

b. Where a company is not carrying on business for profit, an income and expenditure account shall be laid before the company at its annual general meeting instead of a statement of profit and loss.

c. The annual accounts of the company must be submitted in an Annual General Meeting within six months counted from the last day of the accounting period to which the accounts relate.

d. The period to which the accounts relate is known as the financial year and it may be about 12 months. As per Section 2 (41) of the Companies Act, 2013 financial year is defined as "financial year, in relation to any company or body corporate, means the period ending on the 31st day of March every year, and where it has been incorporated on or after the 1st day of January of a year, the period ending on the 31st day of March of the following year, in respect whereof financial statement of the company or body corporate is made up."

e. If any company or body corporate already in existence as on the commencement of Companies Act 2013, does not have a financial year ending on March 31, then it should within a period of two years ensure that its financial year is aligned to March 31 every year.

4.3.2 Legal Requirements as to Form and Contents

Section 129 governs the form and contents of the Balance Sheet and Statement of Profit and Loss:

a. Every balance sheet of a company shall give a true and fair view of the state of affairs of the company as at the end of the financial year and shall

be in the form set out in Part I of Schedule III or as near thereto as circumstances admit or in such other form as may be approved by the Central Government either generally or in any particular case. The balance sheet should also comply with the accounting standards notified under Section 133.

b. And in preparing the balance sheet due regard shall be had, as far as may be possible, to the general instructions for preparation of balance sheet under the heading "Notes to Accounts" at the end of that Part.

c. Every profit and loss account of a company shall give a true and fair view of the profit or loss of the company for the financial year and shall, subject as previously mentioned, comply with the requirements of Part II of Schedule III as far as they are applicable there to.

d. However, the above requirements are not applicable to:

   i. An Insurance Company, which is required to prepare its financial statements in the form specified by the Insurance Regulatory and Development Authority Act 1999;

   ii. A banking company, which is required to prepare its financial statements in the form specified under schedule III to Banking Regulation Act 1949;

   iii. A company engaged in the generation or supply of electricity, which is required to prepare its financial statements in accordance with Indian Electricity Rules, 2003; or to any other class of company for which a form of balance sheet has been specified in or under the Act governing such class of company.

The Central Government is vested with the power to exempt any class of companies from complying with the above requirements if in its opinion, in the public interest, it is necessary to exempt so. This shall be notified in the Official Gazette.

4.3.3 Legal Requirements as to Compliance with Accounting Standards

Section 133 of the Companies Act, 2013 now requires that every statement of profit and loss and balance sheet of the company shall comply with the accounting standards as prescribed by the Central Government and as recommended by the Institute of Chartered Accountants of India under Section 3 of the Chartered Accountants Act, 1949. If the statement of profit and loss and the balance sheet of the company do not comply with the accounting standards, such companies shall disclose in its statement of profit and loss and balance sheet, the following:

a. The deviation from the accounting standards;

b. The reasons for such deviation; and

c. The financial effect, if any, arising due to such deviation.

A balance sheet or statement of profit and loss, in the above circumstances, clearly refers to and includes any notes thereon or documents annexed thereto, giving information required by this Act, and allowed by this Act to be given in the form of such notes or documents.

4.3.4 Other Legal Requirements

In accordance with Section 134 of the Companies Act, 2013, every financial statement before it is laid before a company in general meeting, shall be approved by the Board of Directors and signed by the Chairperson of the company who is authorized by the Board or by two directors, one of whom is the Managing Director or Chief Executive Officer of the company. It should be attached with the auditor's report and with a report by its Board of Directors with respect to the following:

- The extract of annual report
- Number of meetings held by the Board
- Director's responsibility statement
- Statement of declaration given by independent directors
- Company's policy on Director's appointment and remuneration
- Explanation of the Board on every qualification or adverse remark made by the auditor in his report
- Particulars of Loans, Guarantees and Investments
- Particulars of Contracts, or Arrangements with related parties
- The state of company's affairs
- The amounts, if any, which it proposes to carry to any reserves
- The amount, if any, which it recommends should be paid by way of dividend
- Material changes and commitments, if any, affecting the financial position of the company, which have occurred between the end of the financial year of the company and the date of the report
- The conservation of energy, technology absorption, foreign exchange earnings and outgo in such manner as may be prescribed
- Statement of risk management policy developed and implemented, CSR initiatives and evaluation of Board performance made by the company

Section 134 (8) of the Companies Act, 2013 imposes penalty, if any copy of financial statements are issued or circulated or published unsigned or where the annexure or attachments to the balance sheet or profit and loss account are not properly annexed. In each of these cases, the company which is in default shall be punishable with fine which will not be less than fifty thousand rupees and may extend up to twenty-five lakh rupees. Every officer of the company who is in default shall be punishable with imprisonment for a term which may extend to three years or with fine which shall not be less than fifty thousand rupees but which may extend to five lakh rupees, or with both.

Section 136 (1) of the Companies Act, 2013 states that a copy of every balance sheet and attachments as required by law, which is to be laid before a company in the general meeting, shall be sent to every member of the company 21 days before the date of the Annual General Meeting.

4.4 Presentation of the Statement of Profit And Loss /Income Statement

The statement of profit and loss is often considered to be the most important financial statement. It summarizes the revenues and expenses, gains and losses and arrives at the net income/loss for a specific period. Therefore, the statement of profit and loss is a model of the company's operating performance.

Part II of Schedule III of the Companies Act 2013 prescribes the format for the statement of profit and loss . In general, the statement of profit and loss should be so made out as to clearly disclose the result of the working of the company during the period covered by the account. The statement of profit and loss should also disclose every material feature, including credits or receipts and debits or expenses in respect of non-recurring transactions or transactions of an exceptional nature. The Companies Act does not require the preparation of Manufacturing Account or the Trading Account. Only the requirement of the Statement of Profit and Loss has been specified. The statement of profit and loss is to be prepared in the vertical format.

Exhibit 4.1 is an extract of the statement of profit and loss of Infosys Limited for the year 2020-21.

Exhibit 4.1: Statement of Profit and Loss of Infosys Limited for the year ended March 31, 2021 and March 31, 2020

In ₹ Crore except equity share and per equity share data

Particulars	**Note no.**	**Year ended March 31,**	
		2021	**2020**
Revenue from Operations	2.17	85,912	79,047
Other Income, Net	2.18	2,467	2,700
Total Income		88,379	81,747
Expenses			
Employee Benefit Expenses	2.19	45,179	42,434
Cost of Technical Sub-contractors		9,528	8,447
Travel Expenses		484	2,241
Cost of Software Packages and Others	2.19	2,058	1,656
Communication Expenses		464	381
Consultancy and Professional Charges		999	1,066
Depreciation and Amortization Expense	2.1&2.2.2&2.3	2,321	2,144
Finance Cost	2.3	126	114
Other Expenses	2.19	2,743	2,787
Total Expenses		63,902	61,270

Profit before Tax		24,477	20,477
Tax Expense			
Current Tax	2.16	6,013	5,235
Deferred Tax	2.16	416	(301)
Profit for the Year		18,048	15,543
Other Comprehensive Income			
Items that will not be reclassified subsequently to Profit or Loss			
Re-measurement of the Net Defined Benefit Liability/Asset, Net	2.16&2.20	148	(184)
Equity Instruments through Other Comprehensive Income, Net	2.4&2.16	120	(31)
Items that will be reclassified subsequently to Profit or Loss			
Fair Value Changes on Derivatives Designated as Cash Flow Hedge, Net	2.10&2.16	25	(36)
Fair Value Changes on Investments, Net	2.4&2.16	(102)	17
Total Other Comprehensive Income/(Loss), Net of Tax		191	(234)
Total Comprehensive Income for the Year		18,239	15,309
Earnings per Equity Share			
Equity Shares of Par Value ₹ 5 each			
Basic (₹)		42.37	36.34
Diluted (₹)		42.33	36.32
Weighted Average Equity Shares used in Computing Earnings per Equity Share			
Basic	2.21	425,94,38,950	427,70,30,249
Diluted	2.21	426,30,92,514	427,98,08,826

Source: https://www.infosys.com/investors/reports-filings/annual-report/annual/documents/infosys-ar-21.pdf

The statement of profit and loss reports revenues generated by the sale of goods and services from a firm's continuing operations. The costs and expenses incurred to generate these revenues follow. The cost of manufacturing or purchasing the goods sold, are normally listed first, since they are directly related to the period's revenues. Indirect costs of selling and administration activities and expense categories such as research and development are reported next. The excess of revenues over expenses (before interest) measures the firm's operating income from continuing operations.

In addition to its core business, a firm may have income/loss from the activities, such as interest or dividend from investments, equity in the income of its unconsolidated affiliates and gains or losses on sale or disposal of assets. Recurring earnings before interest and taxes from continuing operations usually include these items. Deducting financing costs results in recurring pre-tax income from operations.

Unusual or infrequent items, such as pretax gains and losses from the sale of impaired assets, are often shown as separate line items yielding "pretax income from continuing operations". Net Profit or Profit after Tax is calculated by deducting income tax expenditure from the pre-tax income. Income tax expense is usually the final deduction before arriving at net profit.

A more detailed description of the contents of the income statement can be taken up as follows:

4.4.1 Explanation of Terms Used in Vertical Form of Statement of Profit and Loss

Total Revenue: Total revenue represents the sales revenue generated from the sale of goods or services to customers and other income. The firm earns revenue from the sale of its principal products. Sales are usually shown net of any discounts, returns and allowances. Brokerage, commission paid to selling agents and cash discount other than the usual trade discounts are exhibited separately in other expenses. In the instance of a service organization like Infosys, income generated from services can be the total revenue.

As per Schedule III of Companies Act, 2013:

In respect of a company other than a finance company, revenue from operations shall disclose separately in the notes:

Revenue from—

(a) Sale of products
(b) Sale of services
(c) Other operating revenues

Less:

(d) Excise duty.

Costs of Revenue/Expenses: The first expense deduction from sales is the cost to the seller of products sold to customers. This expense is called as costs of goods sold or the costs of services rendered. For a retailing firm, the Cost of Goods sold equals beginning inventory plus purchases minus ending inventory. In a manufacturing concern, the cost of revenue is calculated by taking the cost of goods manufactured instead of purchases since the goods are produced rather than purchased. On the other hand, a service organization will not have any cost of goods sold or cost of sales, but instead will have cost of development or rendering of services. Infosys Limited had total expenses of ₹ 63,902 crores in 2020-21 in comparison to ₹ 61,270 crores in 2019-20.

Gross Profit: The difference between net sales and cost of goods sold is called gross profit or gross margin. Gross profit is the first step in ascertaining profit in the statement of profit and loss and is used as an important analytical tool for analyzing a firm's operating performance. The gross profit figure indicates how much profit the firm is generating from the principal business activities.

Operating Expenses: Operating expenses can be broadly classified into five categories: selling, administrative, depreciation and amortization, lease payments, and repairs and maintenance.

Selling Expenses – They relate to the expenses resulting from the company's effort to make sales, including advertising, sales commission, sales supply and so on.

Administrative Expenses – These relate to the expenses of general administration of the company's operations. They include salaries, insurance, telephone, bad debt expense and other costs difficult to allocate.

Lease Payments – Lease payments include the costs associated with operating rentals of leased facilities for retail outlets. A Lease can be either an operating lease or a capital lease. Operating lease is a conventional rental agreement with no ownership rights conferred on the lessee. If a lease agreement satisfies four conditions (transfer of ownership to lessee, contains a bargain purchase option, has a lease term of 75% or more of the leased property's economic life or has minimum lease payments with a present value of 90% or more of the property's fair value), it is called as capital lease. Each lease payment is apportioned partly to reduce the outstanding liability and partly to interest expense.

Depreciation and Amortization – The cost of assets that will benefit a business enterprise for more than a year is allocated over the asset's service life rather than expensed in the year of purchase. The nature of long-lived assets determines the cost allocation procedure. Depreciation is used to allocate the cost of tangible fixed assets such as buildings, machinery, equipment, fixtures and fittings and motor vehicles. Amortization is the process applied to the cost expiration of intangible assets such as patents, copyrights, trademarks, licenses, franchises, and goodwill. The cost of acquiring and developing natural resources like oil and gas, other minerals and standing timber is allocated through depletion. The depreciation policy of Infosys Technologies for the year 2020-21 is shown in Exhibit 4.2 as an example.

Exhibit 4.2: Depreciation Policy at Infosys Technologies

The Company depreciates property, plant and equipment over their estimated useful lives using the straight-line method. The estimated useful lives of assets are as follows:

Depreciation on fixed assets is applied on the straight-line basis over the useful lives of the assets estimated by the Management. Depreciation for assets purchased/ sold during a period is proportionately charged. Intangible assets are amortized over their respective individual estimated lives on a straight-line basis, commencing from the date the asset is available to the company for its use.

Contd….

The estimated useful life of an intangible assets is based on a number of factors including the effects of obsolescence, demand, competition, other economic factors (such as stability of the industry, known technological advances etc.) and the level of maintenance expenditures required to obtain the expected future cash flows from the asset. Leasehold improvements are written off over the lower of the remaining primary period of the lease or the life of the asset. The management estimates the useful lives of the other fixed assets as follows:

Buildings – 22- 25 years

Plant and Machinery – 5 years

Office equipment – 5 years

Computer equipment – 3-5 years

Furniture and Fixtures – 5 years

Vehicles – 5 years

Leasehold improvements – Lower of the useful life of the asset or lease term

Depreciation methods, useful lives and residual values are reviewed periodically, at the end of each financial year.

For the year 2020-21, Infosys Limited provided an aggregate depreciation and amortization expenditure of ₹ 2,321 crores against ₹ 2,144 crore for 2019-20. This represents 3.2% of total revenue for each of the years ended March 31, 2021 and March 31, 2020.

Source: Infosys Annual Report 2020-21

Repairs and Maintenance – These are the costs of maintaining the firm's property, plant and equipment. Expenditures in this area should correspond to the level of investment in capital equipment and to the age and condition of the company's fixed assets.

Operating Profit: It is the company's profit from its core operations. It is arrived at after deducting operating expenses from operating revenues. Operating profit does not include interest expenses or other financing costs. Nor does it include income generated outside the normal activities of the company, such as income on investments or foreign currency gains, or extraordinary incomes and other non-operating incomes. Operating income is a measure of profitability based on the company's operations.

Profit Before Interest and Tax (PBIT): It measures the gross performance of the company. As the term indicates, it is the profit of the company (both operating and non-operating) excluding the interest expenses and taxation expenses. This measure is generally used to measure the performance of the company regarding its total capital employed.

Profit Before Tax (PBT): This indicates the profits available after interest but before charging tax. This is to understand the impact of tax, which is a compulsory charge on the net profit of the company.

Profit After Tax (PAT): This is a measure of net profit of the company. It is the net profit earned by the company after deducting all expenses like interest, depreciation and tax. A company can fully retain PAT to be used in the business. Dividends, if declared, are paid to the shareholders from this residue.

Profits Available to Equity Shareholders: This indicates the amount of current profits plus the accumulated profits available to Equity shareholders after appropriating dividends to preference shareholders. These profits can be fully distributed to equity shareholders or fully retained or partly distributed and partly retained according to the company policy.

Special Items: Accounting Standard – 5 (revised) has prescribed the classification and disclosure of certain items in the statement of profit or loss so that all enterprises prepare and present such a statement on a uniform basis. Accordingly, the following items should be disclosed separately:

a. *Extraordinary items* – Extraordinary income or expenses in a period should be separately stated in the statement of profit and loss in a manner that its impact on current profit or loss can be perceived. Extraordinary items may be defined as material events and transactions distinguished by their unusual nature and by the infrequency of their occurrence. Examples include a major casualty such as fire; prohibition under a newly enacted law, etc. These items, net of their tax should be shown separately.

b. *Prior period items* – The term refers to expenses and incomes which arise in the current period because of errors or omissions in the preparation of financial statements of one or more periods. Errors may occur as a result of mathematical mistakes, mistakes in applying accounting policies, misinterpretation of facts, or oversight. Prior period items may be disclosed separately to ascertain the effect of such transactions on the profit/loss for the period.

c. *Changes in accounting estimates* – Due to uncertainties in business transactions, many items in financial statements are only estimated instead of being measured accurately. For example, estimation of bad debts, inventory obsolescence or the useful lives of depreciable assets, etc. Estimates may be later revised if changes occur regarding the circumstances on which the estimate was based, or a result of new information, more experience or subsequent developments. The effect of a change in an accounting estimate should be:

    i. Included in the period of the change, if the change affects the period only; or

    ii. Included in the period of the change and future periods, if the change affects both.

d. *Changes in accounting policies* – Some changes in accounting policies do not require retroactive adjustments to reflect the adoption of a new accounting policy. The new policy is used for the current year, while the

prior years' continue to be presented based on the prior accounting policy. This makes comparability a problem. The comparability problem is further aggravated by the additional reporting guidelines. These guidelines state that the income effect of the change on prior years should be reported net of tax in the income statement in the year of change. It should be shown under the title "cumulative effect of a change in accounting policy". It is usually shown just above net income. Where there is a cumulative effect of a change in accounting principle, the reporting standards require that income before extraordinary items and net income, should be shown on the face of the income statements of all periods as if the newly adopted accounting principle had been applied during all periods affected.

Schedule III of Companies Act, 2013 provides the following instructions and guidelines for the preparation of Balance sheet and statement profit and loss of a company.

1. Where compliance with the requirements of the Act including Accounting Standards as applicable to the companies require any change in treatment or disclosure including addition, amendment, substitution or deletion in the head or sub-head or any changes, inter se, in the financial statements or statements forming part thereof, the same shall be made and the requirements of this Schedule shall stand modified accordingly.
2. The disclosure requirements as per accounting standards need to be followed. The disclosures required under schedule iii do not substitute the disclosures required as per accounting standards but are in addition to the disclosures specified in accounting standards.
3. (i) Notes to accounts shall contain information in addition to that presented in the Financial Statements in the form of narrative descriptions and items that do not qualify for recognition in those statements.

   (ii) While preparing the financial statements and notes to accounts care should be taken about the information provided. It should not be excessive information so as to overload the reader of financial statement and should not be too less so that pertinent information is not disclosed. A balance needs to be maintained.
4. The figures appearing in the financial statement need to be rounded off depending on the turnover as prescribed in the schedule. For example, if the turnover is less than one hundred crore rupees figures need to be rounded off to the nearest hundreds, thousands, lakhs or millions, or decimals thereof. Similarly, if the turnover is or exceeds one hundred crore rupees figures need to be rounded off to the nearest lakhs, millions or crores, or decimals thereof.
5. Previous years comparative figures need to be given in the financial statements as well as notes to accounts except for the year of incorporation.

4.4.2 Requirements of Statement of Profit and Loss as given in Part II of Schedule III of the Companies Act, 2013

The general instructions for the preparation of statement of profit and loss are as follows:

1. The provisions applicable to the statement of profit and loss in Part II, Schedule III will also be applicable to the preparation of the Income and Expenditure account in case of not-for profit organizations.
2. The revenue from operations for a company other than a financing company shall disclose separately the revenue earned from:
   a. Sale of Products
   b. Sale of Services
   c. Other operating revenues
   d. Excise duty to be deducted

   In case of a financing company, the revenue from operations shall include interest income and income from other financial services. To the extent possible, the revenue under each of the sub-headings above shall be disclosed in notes to accounts.
3. The other income shall consist of the following:
   a. Interest Income (only in case of non-financing company)
   b. Dividend Income
   c. Net gain/loss on sale of investments
   d. Other operating income
4. The aggregate amount of income and expenditure pertaining to the below items should be given by way of notes to accounts:
   i. (a) Employee Benefits Expense showing separately (a) salaries and wages, (b) contribution to provident and other funds, (c) expense on Employee Stock Option Scheme (ESOP) and Employee Stock Purchase Plan (ESPP) and (d) staff welfare expenses
      (b) Depreciation and amortization expense
      (c) Any item of income or expenditure which exceeds one per cent of the revenue from operations or ₹ 1,00,000, whichever is higher
      (d) Interest Income
      (e) Interest expense
      (f) Dividend income
      (g) Net gain/loss on sale of investments
      (h) Adjustments to the carrying amount of investments
      (i) Net gain or loss on foreign currency transaction and translation (other than considered as finance cost)

(j) Payments to the auditor as (*a*) auditor (*b*) for taxation matters (*c*) for company law matters (*d*) for management services (*e*) for other services and (*f*) for reimbursement of expenses

(k) In case of companies covered under Section 135, the amount of expenditure incurred on corporate social responsibility activities

(l) Details of items of exceptional and extraordinary nature

(m) Prior Period items

ii. a. In case of manufacturing companies, the notes to accounts should, in addition to the above, also disclose the raw materials under broad heads and details of goods purchased under broad heads. Similarly, for trading companies, purchases in respect of goods traded in by the company under broad heads is to be disclosed. For service companies, gross income derived from services or supplied under broad heads need to be disclosed in notes to accounts.

b. If a company falls under more than one category (i.e. it is a trading company and/or manufacturing company and/or a service company), it is sufficient if the purchases, sales and consumption of raw material and the gross income from services rendered is shown under broad heads.

c. For all other companies, the gross income derived should be disclosed. Where a company has work-in-progress, then the amount of works-in-progress under broad headings is to be disclosed.

d. Any amounts set aside or proposed to be set aside as reserves, not including any provisions made to meet any specific liability should be disclosed along with details of any amounts withdrawn from such reserves.

e. Any amounts set aside as provisions to meet any specific liability or commitment along with details of any amounts withdrawn from such provisions.

5. The expenditure incurred for each of the following is to be shown separately:

(a) Consumption of stores and spare parts

(*b*) Power and fuel

(*c*) Rent

(*d*) Repairs to buildings

(*e*) Repairs to machinery

(*f*) Insurance

(*g*) Rates and taxes, excluding, taxes on income

(*h*) Miscellaneous expenses

6. The notes to accounts accompanying the statement of profit and loss shall also contain the following information:

   (*a*) Value of imports calculated on C.I.F basis by the company during the financial year in respect of—

      i. Raw materials

      ii. Components and spare parts

      iii. Capital goods

   (*b*) Expenditure in foreign currency during the financial year on account of royalty, know-how, professional and consultation fees, interest and other matters;

   (*c*) Total value if all imported raw materials, spare parts and components consumed during the financial year and the total value of all indigenous raw materials, spare parts and components similarly consumed and the percentage of each to the total consumption

   (*d*) The amount remitted during the year in foreign currencies on account of dividends with a specific mention of the total number of non-resident shareholders, the total number of shares held by them on which the dividends were due and the year to which the dividends related

   (*e*) Earnings in foreign exchange classified under the following heads, namely:

      i. Export of goods calculated on F.O.B. basis

      ii. Royalty, know-how, professional and consultation fees

      iii. Interest and dividend

      iv. Other income, indicating the nature thereof

Where a company is required to prepare Consolidated Financial Statements, i.e., consolidated balance sheet and consolidated statement of profit and loss, the company shall mutatis mutandis follow the requirements of this Schedule as applicable to a company in the preparation of balance sheet and statement of profit and loss. In addition, the consolidated financial statements shall disclose the information as per the requirements specified in the applicable Accounting Standards including the following:

(i) Profit or loss attributable to "minority interest" and to owners of the parent in the statement of profit and loss shall be presented as allocation for the period.

(ii) "Minority interests" in the balance sheet within equity shall be presented separately from the equity of the owners of the parent.

4.4.3 Earnings Per Share

Earnings Per Share (EPS) is one of the widely-used ratios which represents the amount of income earned by a company expressed 'per share' basis in its simplest form and is computed by dividing net income for the period by the weighted average number of equity shares outstanding for the period. It is now mandatory for all companies with equity share capital to report EPS on the face of the statement of Profit and Loss. The ratio's computation can become complex if the company has potentially dilutive items outstanding. That is, the company may have certain securities outstanding that are convertible into equity shares or stock options that could create additional equity shares if the options were exercised. These items could cause EPS to decrease (become diluted). Hence, both the Basic Earnings Per Share (Basic EPS), and Diluted EPS are disclosed by companies beneath the statement of Profit or Loss for the period. This ratio shall be dealt in detail in our chapter on Ratio Analysis. Refer Exhibit 4.3 below for example in case of Infosys Limited.

Exhibit 4.3: Extract of EPS data of Infosys Limited for the Year Ended March 31, 2021 and March 31, 2020

Particulars	Standalone		
	2021 (₹)	2020 (₹)	% increase
Basic	42.37	36.34	16.6
Diluted	42.33	36.32	16.5
The weighted average equity shares used in computing earnings per share are as follows:			
Particulars	Standalone		
	2021 (₹)		2020 (₹)
Basic	425,94,38,950		427,70,30,249
Diluted	426,30,92,514		427,98,08,826

Source: Infosys Annual Report 2020-21

4.4.4 Dividends

Dividends may be defined as the share of profits that is payable to each shareholder of the company. The Companies Act, 2013 lays down that dividends can be paid out of profits only and prohibits the payment of any dividend out of capital or accumulated reserves (Section 123). Also, dividends shall be paid in cash only. A company may pay dividends from any or all of the three following sources:

i. Profits of the current year.

ii. Undistributed profits of previous years.

iii. Money provided by the Central or any State Government for the payment of dividends in pursuance of a guarantee given by the government concerned.

A company should before the declaration of any dividend in any financial year, transfer such percentage of its profits for that financial year as it may consider appropriate to the reserves of the company.

The Directors generally recommend the percentage of dividend payable on the equity shares. The shareholders at the Annual General Meeting may pass a resolution adopting the recommendation or may lower the percentage recommended. The shareholders do not have the power to enhance the dividend recommended by the Directors. The percentage adopted must be applied only on the paid-up capital. Calls-in-arrears do not qualify for dividends. In other words, dividend should be calculated on paid up capital.

Issued share capital	xxx
Less: Calls-in-arrears (if any)	xxx
Paid-up capital	xxx

For example, let us assume that the Directors of Sunshine Limited propose a dividend of 15% to the equity shareholders. The called up equity capital of the company is ₹ 50,00,000 and there are calls-in-arrears to the extent of ₹ 40,000. The dividend payable in the example would be calculated as:

(15/100) x (50,00,000 – 40,000) = ₹ 7,44,000.

Of late, companies have started declaring dividends as a percentage of the Profit After Tax (PAT) also.

The dividend recommended by the directors is termed as 'Proposed Dividend' till it is adopted by the shareholders at the Annual General Meeting. The entry to record proposed dividend is:

Statement of Profit and Loss a/c Dr.
To Proposed Dividend a/c

The proposed dividend will be classified as a provision and shown under "short term provisions" in the balance sheet. The dividend finally decided by the shareholders in the Annual General Meeting as payable is termed as 'Declared Dividend'. Any dividend declared must be paid within thirty days from the date of declaration. Hence, a declared dividend must be classified as a current liability in the balance sheet of the company.

Though dividends can be declared only by a resolution of the shareholders, if the articles of the company permit, the Directors can declare an interim dividend between two annual general meetings. When an interim dividend is paid, the entry to record the payment will be,

Interim Dividend a/c Dr.
To Bank a/c

The interim dividend paid during a year will appear in the Trial Balance of the company as on the last date of the accounting period and will be transferred to the Profit and Loss Account of the period as an appropriation of profits.

Final Dividend: After declaring an interim dividend, the company may also declare another dividend which is termed as "final dividend". This dividend is declared over and above the interim dividend, unless it is specifically mentioned to be adjusted. It is shown as an appropriation of profits.

For the year 2020-21, Infosys Limited paid an interim dividend of ₹ 12 per equity share and a final dividend of ₹ 15 per equity share.

4.4.5 Transfer to Reserves

A company appropriates a portion of the profits earned to reserves. The reserve may be a general reserve or a specific reserve. When the reserve is designed to meet any unforeseen contingencies in the future, it is termed as General Reserve. When the reserve is created with a specific purpose, then it is called Specific Reserve. For example, 'Dividend Equalization Reserve' is designed to smoothen the distribution of dividends to shareholders, especially in the case of companies whose profits keep fluctuating.

123(1) of Companies Act, 2013 provides that it is the discretion of the company to transfer the profits to reserve at such rate as it deems fit before declaring dividend. The Board of Directors of a company may keep a part of the profits aside as reserves, before recommending any dividend. These reserves can be applied at the discretion of the management for any purpose, including provision for meeting contingencies or for equalizing dividends or invest in such investments as the Board deems fit.

Dividend is generally paid by posting the dividend warrants to the shareholders. The dividend warrants must then be presented to the company's bank, which will make the payment. Sometimes, a portion of the dividend declared may remain as unpaid simply because such dividend has not been claimed by certain shareholders. Any dividend declared by the company remaining unpaid within 30 days of declaration, shall be transferred by the company to a special account within seven days of the expiry of the previously mentioned 30 days. If the dividend is not claimed for a period of seven years from the date of transfer to the special bank account, then the unclaimed amount must be transferred by the company to the fund established under Section 125 (1) referred to as investor education and protection fund. After such a transfer, any shareholder entitled to claim such dividend may claim it from the Government.

4.5 Treatment of Specific Items

4.5.1 Depreciation

Section 123 (2) and Schedule II of Companies Act, 2013 requires the provision of adequate depreciation for the following purposes:

1. For determination of the profits out of which dividends can be declared.
2. For determination of profits for calculation of managerial remuneration.

The depreciation to be written-off to the statement of Profit and Loss is the amount of depreciation chargeable, for the calculation of divisible profits. The Companies Act provides that in the balance sheet, in respect of each asset, the original cost, the accumulated depreciation to date and the written down value of the asset should be disclosed. So, companies mostly maintain a provision for depreciation.

Schedule II of the Act details the various concepts related to depreciation as follows:

i. Useful Life: Life over which asset can be used subject to maximum as specified in the Act

ii. Depreciable Amount: Cost of Asset – Residual Value

iii. Carrying Amount: Not defined in the Act.

iv. Residual Value: Generally, not more than 5% of the original cost

If the useful life of the asset is different from what has been mentioned in the Act, the same may be disclosed in the accounts along with the depreciation methods used for computation of depreciation.

4.5.2 Interest on Debentures

Debentures as defined under the Companies Act, 2013 ('2013 Act') include debenture stock, bonds or any other instrument of a company evidencing a debt, whether constituting a charge on the assets of the company or not. The power to issue debentures can be exercised on behalf of the company at a meeting of the Board of Directors under the provisions of Section 179(3) of 2013 Act. When a company raises funds by issue of debentures, the statement of profit and loss must show the annual interest charged on the debentures or where the debentures have been floated only in the current financial year, for the period for which they have been outstanding.

In general, the interest on debentures are payable every six months. The interest accrued on debentures irrespective of whether cash is paid or not, finds a place under expenses in the Statement of Profit and Loss. To the extent, the interest is accrued but not paid, implies that the company has a liability to pay the amount accrued and appears under the head of current liabilities in the Balance Sheet.

Illustration 4.1

Trial Balance of Sharp Limited as on 31.3.20x1

	Dr. (₹)	Cr. (₹)
14% Debentures		20,00,000
Interest on Debentures	70,000	

Interest for the full year on ₹.20,00,000 at 14% p.a., is ₹2,80,000. Since an amount of ₹70,000 is shown in the Trial Balance against interest, we may

assume that an amount of ₹2,10,000 is outstanding. Usually, debenture interest is payable every six months. In the given illustration, we may assume the due dates of interest to be 30th June and 31st December of every year. While the interest due on 30th June, 20x0 has been paid, the amount due on 31st December, 20x0 has not been paid and in addition, interest has accrued, for the three months period up to 31st March, 20x1. In the Profit and Loss Account, the Interest on debenture will be shown as follows:

Profit and Loss Account of Sharp Limited

	₹	₹
To Debenture Interest	70,000	
Add: Outstanding interest	2,10,000	2,80,000

The Interest of ₹.1,40,000 being the interest due for the six-month period up to 31st December, 20x0 is termed as 'Interest Accrued and Due' and though this outstanding amount is a short-term liability, as per the Companies Act, it must be shown in the balance sheet along with the amount outstanding in respect of debentures. The interest of ₹. 70,000 being the interest due for the three-month period up to 31st March, 20x1 is termed as 'Interest Accrued but not Due' since the next due date for payment of interest is only 30th June, 20x1.

Interest Accrued but not due should be shown in the balance sheet as a current liability.

Balance Sheet of Sharp Limited as on 31.3.20x1

Liabilities	₹	₹
Secured Loans		
14% Debentures	20,00,000	
Add: Interest Accrued and Due	1,40,000	21,40,000
Current Liabilities and Provisions		
Interest accrued but not due on Debentures		70,000

4.5.3 Income Tax

Dividends to both the equity and the preference shareholders can be paid only out of profits available after considering the income tax. The profits on which income tax is payable is termed as taxable profits and the calculation of taxable profits is based on the provisions as per the Income Tax Act.

Though the actual amount of tax can be calculated only when the books of accounts are closed for the accounting period and profits are ascertained, the Income Tax Act requires a business to pay advance tax by forecasting the likely profits that would accrue during the year. Another point to be noted in the case of income tax is that though a company may determine the tax liability, pay the tax and file its return, the Income Tax Officer will scrutinize the return and assess the tax payable by re-computing the taxable profits.

If the Income Tax Officer arrives at taxable profits, which differ from that stated by the company in its Income tax return, then the tax assessed and to be settled will also differ.

The process of assessment may take quite some time to be completed and until such completion, the exact tax liability will not be known to the company. Thus, the accounting treatment of income tax must consider the following three stages:

i. Payment of Advance Income Tax.

ii. Determination of the tax liability by the company from its books of accounts, making a provision for such liability and payment of the difference, if any, between advance tax and tax now computed.

iii. Completion of the assessment by the Income Tax Officer.

The concepts of 'previous year' and 'assessment year' have also to be understood to follow the accounting treatment of income tax. Assessment year means the period of twelve months starting from April 1 of every year and ending on March 31 of the next year. For example, the assessment year 20x1 - 20x2 commences on April 1, 20x1 and ends on March 31, 20x2.

The income of the previous year of a business is taxed during the following assessment year at the rates prescribed for such assessment year by the Finance Act. The previous year is defined as the financial year or the period of twelve months starting from April 1 of every year and ending on March 31 of the next year. For example, the relevant previous year for the Assessment Year 20x1-20x2 is the financial year commencing on April 1, 20xx and ending on March 31, 20x1. In other words, the taxes for the financial year 20xx-20x1 will be assessed at the rates prescribed for the Assessment Year 20x1-20x2. So, it is customary to identify any payment of advance tax with the assessment year to which it pertains.

When the advance tax is paid, the journal entry would be:

Advance Income Tax a/c	Dr.	xxx
To Bank a/c		xxx

For example, if an advance tax of ₹ 3,50,000 is paid by a company for the previous year 2015-16, the entry would be:

Advance Tax for Assessment Year 20x1-20x2 A/c	Dr.	3,50,000
To Bank A/c		3,50,000

Though the above transaction has been journalized to explain the dual aspects, in reality the payment of advance tax would be recorded in the cash book and the debit aspect posted in the ledger from the cash book. Thus, while preparing the Trial Balance as on March 31, 20x1, the Advance Tax for Assessment Year 20x1-20x2 will be included in the Trial Balance at a debit balance of ₹ 3,50,000.

Let us assume that in the example cited above, the company determines its tax liability as ₹ 3,42,500 after drawing up the Statement of Profit and Loss for the year ended March 31, 20x1. This liability must be provided for by passing the entry as:

Profit and Loss Account	Dr.	3,42,500	
To Provision for Income Tax Account (Assessment Year 20x1-20x2)			3,42,500

While the tax liability will appear as an expense in the Profit and Loss Account, the Provision for Income Tax will be shown in the balance sheet as a current liability and the Advance Tax of ₹ 3,50,000 paid will be shown as an advance on the asset side of the balance sheet. Another acceptable method of presentation is to set-off the advance and the provision relating to the same assessment year against each other and take only the net amount either to the liability or asset side of the balance sheet. In the example given above, since the advance exceeds the provision, the net amount would be presented as follows:

Balance Sheet as on March 31, 20x1

Assets	₹	₹
Loans and Advances:		
Advance tax for Assessment Year 20x1-20x2	3,50,000	
Less: Provision for tax for Assessment Year 20x1-20x2	3,42,500	7,500

Till such time the assessment is completed, the balance in the advance and provision accounts will be carried forward. To continue with the above example, if the assessment is completed in December 20x1 and the tax liability is arrived at ₹ 3,60,000, by the Income Tax Officer the accounting treatment will be as follows:

i. The provision for tax is short of the actual liability by ₹ 17,500. The company must provide for this extra liability. In the Profit and Loss Account for the year ended March 31, 20x2 an increase in the liability will be provided for, by making the following entry:

Profit and Loss Account	Dr.	17,500	
To Provision for Income Tax Account (Assessment Year 20x1-20x2)			17,500

The above entry will be in addition to the entry required to be passed in respect of tax payable for the financial year 20xx-20x1.

ii. Since the assessment has been completed, the advance tax account can be closed by transfer to the provision account. The journal entry for the transfer will be:

Provision for Income Tax Account (Assessment Year 20x1-20x2)	Dr.	3,50,000	
To Advance tax for assessment year 20x1-20x2			3,50,000

iii. The balance of tax payable amounting to ₹ 10,000 (i.e. ₹ 3,60,000 – ₹ 3,50,000) must be paid shortly after the completion of assessment.

When the short-fall in tax is paid, the entry will be:

Provision for Income Tax Account (Assessment Year 20x1-20x2)	Dr.	10,000	
To Bank a/c			10,000

With recording the above entries, the balance sheet as on March 31, 20x2 will not list any items pertaining to tax payable for Assessment Year 20x1-20x2. The ledger accounts are given as follows:

Advance Tax for Assessment Year 20x1-20x2 Account

Particulars	₹	Particulars	₹
20xx April-1 To Balance b/d	3,50,000	20x1 March-31 By Provision for Income Tax Account	3,50,000

Provision for Income Tax Account (Assessment Year 20x1-20x2)

Particulars	₹	Particulars	₹
20xx Decembe-31		20x1 April 1	
To Bank a/c	10,000	By Balance b/d	3,42,500
20x1 March-31			
To Advance tax for Assessment year a/c	3,50,000	By Profit and Loss a/c	17,500
	3,60,000		3,60,000

Note: Income tax adjustments of the previous year are normally made by debiting or crediting the profit and loss appropriation account so that current operating profits are not distorted. Provision for current year's tax is, however, debited 'above the line'.

4.5.4 Managerial Remuneration

The Profit and Loss Account of companies contain, on an aggregated basis, the amount of managerial remuneration payable or made during the financial year to the Directors (including Managing Directors) or managers, if any. The details of the managerial remuneration are shown separately in the notes to accounts.

Refer to Exhibit 4.4 for Infosys Limited's managerial remuneration to key managerial personnel for the year ended March 31, 2021.

Exhibit 4.4: Managerial Remuneration to key Managerial Personnel in Infosys Limited for the Period ending March 31, 2021

Particulars	Year ended March 31,	
	2021	2020
Salaries and other employee benefits to whole-time directors and executive officers[(1x2)]	144	118
Commission and other benefits to non-executive/independent directors	6	8
Total	150	126

i. Total employee stock compensation expense for the year ended March 31, 2021 and March 31, 2020, includes a change of ₹76 crore and ₹56 crore respectively, towards key managerial personnel.

ii. Does not include post –employment benefit based on actuarial valuation as this is done for the company as a whole.

Source: https://www.infosys.com/investors/reports-filings/annual-report/annual/documents/infosys-ar-21.pdf

The payment of managerial remuneration is governed by Companies Act 2013. The term managerial remuneration includes remuneration payable to the:

a. Managing Director

b. Manager

c. Part-time Directors

d. Whole time Director

In Case of Companies having Adequate Profits

The overall limit for managerial remuneration is laid down under Section 197 of the Companies Act, 2013. The total managerial remuneration payable by a public company or a private company which is a subsidiary of a public company in any financial year shall not exceed 11% of the net profit of that company for that financial year. This overall limit excludes fees payable to the directors for attending board meetings or committee meetings which are payable to part-time directors only. However, a company may, with the approval of the Central Government, authorize in its general meeting for the payment of managerial remuneration exceeding 11%, subject to the provisions contained in Schedule V.

Within the overall limit of 11%, a company may pay a monthly remuneration to its Managing Director or whole-time director or to its manager in accordance with section 197 of the Companies Act, 2013. The breakup of the overall limit to different categories of managerial personnel is as shown in Table 4.1:

Table 4.1: Managerial Remuneration Limits

Category	Max as a (%) of Annual Net Profit
i. The maximum payable to Managing Director, where the company has only one Managing Director.	5
ii. Where the company has more than one MD, the total overall limit for all the MDs.	10
iii. Where the company has only one whole time director.	5
iv. Where the company has more than one whole-time director, the total overall limit for all the whole-time [full -time] directors.	10
v. Where the company has only one manager.	5
vi. Where the company has MD/MDs, Whole time director/directors, the overall limit for all of them.	10
vii. Where the company has only directors and no MDs or Whole time directors, the overall limit for all.	3
viii. Where the company has directors and also has MD, or MDs or whole time Directors, the overall limit for directors only.	1

Source: Companies Act, 2013

The above limits fall within the overall limit of 11% of annual net profits for managerial remuneration.

In Case of Companies not having Adequate Profits

In case of inadequacy of profits or loss for any financial year, the company is required to make payment as per the provisions of Part II of Schedule V of the Companies Act, 2013.

Where in any financial year during the currency of tenure of the managerial person, a company has no profits or its profits are inadequate, it may pay remuneration to a managerial person, by way of salary, dearness allowance, perquisites, and any other allowance, not exceeding the limits prescribed by Companies Act, 2013 which are shown below in Table 4.2

Table 4.2: Managerial Remuneration in case of Companies having inadequate Profits

Where the effective capital of a company is:	Limit of yearly remuneration payable shall not exceed (in ₹) in case of a managerial person
i. Negative or less than ₹ 5 crores	60 lakhs
ii. ₹ 5crore or more but less than ₹ 100 crore	84 lakhs
iii. ₹ 100 crore or more but less than ₹ 250 crore	120 lakhs
iv. ₹ 250 crores and above	120 lakhs plus 0.01% of the effective capital more than ₹ 250 crores

Source: http://ebook.mca.gov.in/Actpagedisplay.aspx?PAGENAME=17921

The above ceiling is subject to certain conditions such as the passing of resolution by the remuneration committee, etc., on whose fulfillment payments can be made. On passing a special resolution, the above amounts can be doubled.

Computation of Net Profits for Managerial Remuneration

Managerial remuneration payable to directors, managers, managing director is based on net profit, which is calculated after making the following four adjustments to gross profit (Section 198 of the Companies Act, 2013):

1. Credit shall be given for the following sums as per Section 198 (2):

   Bounties and subsidies received from any Government or any public authority constituted or authorized in this behalf by any Government, unless and except as far as the Central Government otherwise directs.

   Note: *Bounties and subsidies received from any government or any public authority should be added with the gross profit.*

2. As per Section 198(3), credit shall not be given for the following sums:

   a. Profits, by way of premium, on shares or debentures of the company, which are issued or sold by the company;
   b. Profits on sales by the company of forfeited shares;
   c. Profits of a capital nature, including profits from the sale of the undertaking or any of the undertakings of the company or of any part thereof;
   d. Profits from the sale of any immovable property or fixed assets of a capital nature comprised in the undertaking or any of the undertakings of the company, unless the business of the company consists, whether wholly or partly, of buying and selling any such property or assets.

   If the amount for which any fixed asset is sold exceeds the written-down value thereof, credit shall be given for so much of the excess as is not higher than the difference between the original cost of that fixed asset and its written-down value.

   Note: *No credit shall be given for any capital profit (sale proceeds less original cost) on sale of fixed assets. However, credit shall be given for revenue profit (difference between the original cost and written-down value) on sale of fixed assets*.

3. In arriving at the above computation, the following sums shall be deducted as per Section 198 (4):

   a. All the usual working charges;
   b. Directors' remuneration;
   c. Bonus or commission paid or payable to any member of the company's staff, or to any engineer, technician or person employed or engaged by the company, whether on a whole-time or on a part-time basis;

d. Any tax notified by the Central Government as being a tax on excess or abnormal profits;

e. Any tax on business profits imposed for special reasons or in special circumstances as being a tax on excess or abnormal profits and notified by the Central Government in this behalf;

f. Interest on debentures issued by the company;

g. Interest on mortgages executed by the company and on loans and advances secured by a charge on its fixed or floating assets;

h. Interest on unsecured loans and advances;

i. Expenses on repairs, whether to immovable or to movable property, provided the repairs are not of a capital nature;

j. Outgoings, inclusive of contributions made under Section 181;

k. Depreciation to the extent specified in Section 123;

l. The excess of expenditure over income, which had arisen in computing the net profits in accordance with this Section in any year which begins at or after the commencement of this Act, as far as such excess has not been deducted in any subsequent year preceding the year in respect of which the net profits must be ascertained;

m. Any compensation or damages to be paid by any legal liability, including a liability arising from a breach of contract;

n. Any sum paid by way of insurance against the risk of meeting any liability such as referred to in Clause (m);

o. Debts considered bad and written-off or adjusted during the year of account;

4. In making the above computation the following sums shall not be deducted as per Section 198 (5):

a. Income tax and super-tax payable by the company under the Indian Income Tax Act, 1961 or any other tax on the income of the company not falling under Clauses (d) and (e) above;

b. Any compensation, damages or payments made voluntarily, that is to say, otherwise than in virtue of a liability, such as is referred to in Clause (m) above; and

c. Loss of a capital nature including loss on sale of the undertaking or any of the undertakings of the company or of any part thereof not including any excess referred to in the provision to Section 123 of the written-down value of any asset which is sold, discarded, demolished or destroyed, over its sale proceeds or its scrap value.

d. Any change in carrying amount of an asset or of a liability recognized in equity reserves, including surplus in profit and loss account on measurement of the asset or the liability at fair value.

Illustration 4.2

Home Appliances Ltd., employs a Managing Director who is entitled to a salary of ₹ 50,000 per month and, in addition, to a commission of 1% of the net profits before charging such salary and commission. The following Statement of Profit and Loss is presented by Home Appliances Ltd., for the year ended 31st March, 20xx.

Particulars	₹	Particulars	₹
To Staff salaries and bonus	30,00,000	By Gross Profit b/d	100,00,000
To General expenses	1,5,00,000	By Profit on sale of plant (Cost price ₹ 25,00,000; WDV ₹ 18,00,000)	10,00,000
To Repairs to Buildings	3,00,000	By Subsidy from Central Government	40,00,000
To Directors' fees	1,00,000		
To R and D expenses (cost of an apparatus)	2,50,000		
To Ex-gratia payment to an employee	50,000		
To Depreciation	15,00,000		
To Bad debt	3,00,000		
To Donations to Ramkrishna Mission	3,00,000		
To Managing director's salary	6,00,000		
To Interest on debentures	2,00,000		
To Debenture trustee remuneration	50,000		
To Income tax	33,25,000		
To Net Profit c/d	33,25,000		
	15,00,000		15,00,000

You are required to calculate the commission payable to the Managing Director. You may assume the depreciation appearing in the Profit and Loss Account has been calculated in accordance with Section 198.

Solution

For calculating the Managing Director's remuneration, first of all, the profits as per Section 198 have to be calculated in the following manner:

Calculation of Profits for the Purpose of Managerial Remuneration

Particulars	Notes	₹	₹
Gross Profit as per Profit and Loss Account			100,00,000
Add: Subsidy from Central Government		40,00,000	
Add: Revenue profit on sale of plant	(1)	7,00,000	47,00,000
			147,00,000
Less: Sums to be deducted as per rules:			
Staff salaries and bonus		30,00,000	
General expenses		15,00,000	
Repairs to buildings		3,00,000	
Directors' fees		1,00,000	
Depreciation		15,00,000	
Bad debts		3,00,000	
Compensation for breach of contract		2,00,000	
Donation to RK Mission		3,00,000	
Interest on debentures		2,00,000	
Debenture trustee remuneration		50,000	74,50,000
Net Profits for Managing Director's commission			72,50,000
Commission payable to the Managing Director (@1% on ₹ 72,50,000)			72,500

Note 1: *Cost of research equipment, ex-gratia, etc., are not treated as allowable expenses for computing managerial remuneration.*

Commission after Charging such Commission

As per the provision of the Companies Act, commission to managerial staff should be calculated before charging such commission. However, a company may enter an agreement to pay the commission at a percentage of profit *after charging such commission*. In this case, the commission is calculated as follows:

$$\text{Commission} = \text{Profit before Commission} \times \frac{\text{Rate of Commission}}{100 + \text{Rate of Commission}}.$$

Check Your Progress – 1

1. Financial statements of Companies are to be prepared in accordance with which schedule of the Companies Act, 2013?
   a. Schedule I
   b. Schedule VII
   c. Schedule III
   d. Schedule VI
   e. Schedule II
2. The Companies Act, 2013 prescribes the format for which of the following?
   a. Both Profit & Loss a/c and Balance Sheet
   b. Only Profit & Loss a/c
   c. Only Balance Sheet
   d. Neither Profit and Loss account, nor balance sheet
   e. Cash flow statement.
3. The profits of Yankee Ltd. is ₹ 15,75,000 for the year 20xx-x1, which is arrived at after considering the following:

Particulars	₹
Directors' remuneration	21,000
Subsidy received from the Government	3,15,000
Income tax paid	94,500
Damages paid by virtue of legal liability	42,000

   If the managerial remuneration payable to directors is 5% after charging such commission, then what is the amount of commission payable?
   a. ₹ 80,500
   b. ₹ 64,500
   c. ₹ 82,500
   d. ₹ 79,500
   e. ₹ 70,500
4. Consider the following data pertaining to Ravera Ltd for the year ending 20xx-x1.

Particulars	₹
Authorized share capital	20,00,000
Issued, called-up and paid-up capital	12,00,000
Calls-in-advance	80,000
Securities premium	1,20,000
Profit for the year ending 20xx-x1	2,55,600

The directors of the company proposed a dividend of 12%. The amount debited to the statement of profit and loss on account of proposed dividend is ……..

a. ₹ 30,672
b. ₹ 2,40,000
c. ₹ 1,53,600
d. ₹ 1,44,000
e. ₹ 1,58,400

5. XY Ltd. proposed a dividend of 10%. The called-up equity share capital of the company is ₹ 3,00,000. If the amount of calls-in-arrears is ₹ 12,000, calculate the amount of proposed dividend of XY Ltd.

a. ₹ 30,000
b. ₹ 37,440
c. ₹ 14,400
d. ₹ 28,800
e. ₹ 36,000

Activity 4.1

a. What are the two principal purposes for which Companies Act, 2013 mandates computation of post-depreciation profit?

_____
_____
_____

b. The manager of Roopal & Co. is entitled to a commission of 15% on net profit after charging such commission. If the net profit before charging commission for 20xx-x1 is ₹ 5,40,500, then calculate the amount of commission payable to the manager.

_____
_____
_____

c. Sujata Limited had issued debentures worth ₹ 10,00,000 at 14% p.a. The debenture interest is payable every six months and the due dates of payment of interest are 30th June and 31st December of every year. While the interest due on 30th June, 20xx has been paid, the amount due on 31st December, 20xx has not been paid and in addition, interest has accrued for the three-month period up to 31st March, 20x1. Show the treatment of interest on debentures in the financial statements.

_____
_____

4.6 Balance Sheet

The purpose of the Balance Sheet is to present the financial position of the enterprise on a particular date. It is defined as a statement of the financial position of an enterprise as at a given date, which discloses the assets and liabilities as on that date. In India, the Balance Sheet is required to be set out in the forms prescribed under Part I of Schedule III of Companies Act, 2013. Part I of Schedule III contains the Vertical Form (see Table 4.3).

4.6.1 Advantages of the Vertical form of Balance Sheet

i. **Easily Comprehensible:** The traditional form of balance sheet was very technical and a wide variety of users who were not fluent with the principles of accounting, found it difficult to understand. The Vertical form of Balance Sheet is in the form of a simple statement without technical jargon and hence can be easily understood by all.

ii. **Bird's View:** Only gross figures are shown in the Balance Sheet without too many details. The details are shown in schedules and are cross referenced against the Balance Sheet's figures. This helps the readers to get an overall view of the position of the company and at the same time get more details through the schedules.

iii. **Classification:** The Balance Sheet is classified as 'Equity and Liabilities' and 'Assets'. The sources comprising Shareholder's equity and Long-term debt and the Assets comprise of 'Fixed Assets', 'long term investments' and 'current assets'. Such terminology also improves understandability. In the traditional form of Balance Sheet the net working capital of the company could not be easily figured, however, this has been rectified in the Vertical form of Balance Sheet.

iv. **Detailed Information:** The introduction of Notes to accounts or schedules, which form a part of the Financial Statements, enables disclosure of detailed information and facts giving a better picture of the item being analyzed.

Table 4.3: Vertical Form of Balance Sheet

Particulars	Notes	Figures at the end of Current Reporting Period	Figures at the end of Previous Reporting Period
I. EQUITY AND LIABILITIES			
1. Shareholders' Funds			
a. Share Capital			
b. Reserves and Surplus			
c. Money received against Share Warrants			
2. Share Application Money Pending Allotment			

Contd….

3. Non-Current Liabilities			
a. Long term Borrowings			
b. Deferred tax Liabilities (Net)			
c. Other long term Liabilities			
d. Long term Provisions			
4. Current Liabilities			
a. Short term borrowings			
b. Trade Payables			
c. Other Current Liabilities			
d. Short term Provisions			
TOTAL			
II. ASSETS			
1. Non- Current Assets			
a. Fixed Assets			
i. Tangible Assets			
ii. Intangible Assets			
iii. Capital Work-in-Progress			
iv. Intangible Assets Under Development			
b. Non-current Investments			
c. Deferred Tax Assets (Net)			
d. Long term Loans and Advances			
e. Other Non-Current Assets			
2. Current Assets			
a. Current Investments			
b. Inventories			
c. Trade Receivables			
d. Cash and Cash Equivalents			
e. Short term Loans and Advances			
f. Other Current Asset			
TOTAL			

The schedules referred to above are an integral part of the balance sheet.

4.6.2 Detailed Explanation of Items of Balance Sheet

I. Equity and Liabilities

Equity consists of the investment made by the owners i.e., shareholders and reserves. Liabilities represent the amount owed to outsiders, i.e., external liabilities.

1. **Shareholders' Funds:** They represent the ownership interest in the company. It is the residual interest in assets that remains after meeting all liabilities. The owners bear greater risk because their claims are subordinate to creditors in the event of liquidation, but owners also benefit from the rewards of a successful enterprise. The ownership interest may be further sub-divided into:

***a. Share Capital*:** The capital raised by the company through the issuance of shares is known as Share Capital. The Companies Act basically provides for two classes of shares – Equity shares and Preference shares. Preference shares enjoy preferential treatment about the payment of dividend and repayment of capital. Equity shareholders enjoy voting rights. But there is no obligation to the company to pay dividends at a fixed rate every year. Even at the time of winding up of the company, they receive their capital only after payment to preference shareholders.

Further details of Share Capital to be presented as per Schedule III of Companies Act, 2013 in the schedule to the balance sheet is as follows:

i. *Authorized capital* – It is the maximum capital stated in the Memorandum of Association that a company can issue for subscription. It is defined as per Section 2(8) of the Companies Act, 2013 as "such capital as is authorized by the memorandum of a company to be the maximum amount of the share capital of the company. The schedule must mention the total number of shares and the face value of each share.

ii. *Issued capital* – According to Section 2 (50), issued capital refers to "such capital as the company issues from time to time for subscription. The schedule must distinguish between the various classes of shares issued to the public and in respect of each class of shares, the number issued and the face value specified.

iii. *Subscribed capital* – According to Section 2(86), it means such part of the capital which is for the time being subscribed by the members of a company. It is shown under two headings:

Subscribed and fully paid-up – where the company has called the entire face value of the share and the company has received the amount called-up.

Subscribed and not fully paid-up – where the company has called the entire face value but has not received the amount called up or where the entire face value is not called yet.

Distinction between the various classes of shares taken up by the public and in respect of each class, the number of shares taken up and the face value should be disclosed. If shares have been allotted as fully paid-up for consideration other than cash (say, shares issued in the takeover of a business) then the number of such shares so allotted must be disclosed. Also, the number of shares which have been allotted as fully paid-up by way of bonus shares should also be disclosed.

i. The called-up capital and any calls unpaid or in arrears should be shown as a deduction from the subscribed capital, to arrive at the paid-up capital.

ii. In respect of calls-in-arrears, the calls unpaid by directors and by others must be shown distinctly.

iii. Any forfeited shares to the extent they have not been reissued and to the extent of the value originally paid-up must be shown as an addition to the capital.

iv. Paid-up Capital – Section 2 (64) of the Companies Act, 2013 defines Paid-up capital as "such aggregate of money credited as paid-up as is equivalent to the amount received as paid-up in respect of shares issued and also includes any amount credited as paid-up in respect of shares of a company, but does not include any other amount received in respect of such shares, by whatever name called."

v. Particulars of different classes of preference shares should be given as follows:

   i. Terms of redemption or conversion (if any), of any redeemable preference share capital should be stated together with earliest date of redemption or conversion.

   ii. The source, from which the bonus shares have been issued, for example, from capitalization of profits or reserves or from share premium account, should also be specified.

***b. Reserves and Surplus*:** The word 'reserve' refers to any amount kept aside from out of the profits of the company or other surpluses of the company and which are not meant to be used for any of the reasons mentioned above in the definition.

The following items should be listed in the schedule of 'Reserves and Surplus':

i. Capital Reserves

ii. Capital Redemption Reserve

iii. Securities Premium Reserve

iv. Debenture Redemption Reserve

v. Revaluation Reserve

vi. Share Options Outstanding Amount

vii. Other Reserves (specifying the nature of each reserve and the amount thereof)

viii. Surplus, that is, balance in the Statement of Profit and Loss Account disclosing allocations and appropriations, such as dividend, bonus shares and transfer to other reserves.

ix. Debit balance of statement of profit and loss shall be shown as a negative figure under the head "Surplus". Similarly, the balance of "Reserves and Surplus", after adjusting the negative balance of surplus, if any, shall be shown under the head "Reserves and Surplus", even if the resulting figure is in the negative.

x. A reserve represented by investments is to be termed as 'fund' and not reserve. Any reserves other than those mentioned above should be shown separately in the Notes to Accounts on Reserves and Surplus.

c. ***Money received against share warrants*:** Share warrants are financial instruments that give the holder of such warrants a right to acquire equity shares at a specified amount and on a specified date. Since they represent a future conversion to shares, they are part of shareholders' funds.

2. **Share Application Money Pending Allotment:** The money received from the applicants to the shares of a company is shown as share application money pending allotment as the allotment of shares is pending on the balance sheet date. However, share application money received, but which is to be refunded to the applicants shall be shown as a current liability under "other current liabilities".

3. **Non-Current Liabilities:** They are defined as liabilities that are not current liabilities and are classified into the following:

Long –term Borrowings – They comprise of -

a. Bonds/Debentures
b. Term loans from Banks and other parties
c. Deferred payment liabilities
d. Deposits
e. Loans and advances from related parties
f. Long term maturities of financial lease obligations
g. Other loans and advances

Details of whether borrowings are secured or unsecured should be disclosed. The nature of security should be specified separately in each case. If any loans are guaranteed by the directors or others, the aggregate amount of such loans should also be disclosed. The bonds/debentures should be listed in a descending order of their maturity or conversion. Where bonds/debentures are redeemable by installments, the date of maturity is taken as the date on which the first installment becomes due. They shall be stated in descending order of maturity or conversion, starting from farthest redemption or conversion date, as the case may be.

The details of any redeemed debentures which the company has power to reissue should be disclosed. Also the terms of repayment of term loans and other loans should be stated. In each of the cases of long term borrowings, the period and amount of continuing default as on the balance sheet in respect of repayment of principal and payment of interest should be specified separately.

***Deferred tax liabilities (net)* –** It arises due to the difference in Accounting Income and Taxable Income those results in accounting income being more than taxable income.

Other Long-term Liabilities – They are classified into trade payables and others. Trade payables that are to be paid after 12 months as of the date of the balance sheet are considered as long term liabilities. Others include premium payable on redemption of debentures or on redemption of preference shares.

Long-term Provisions – Any provision created to meet a future liability that may arise after 12 months as of the date of the balance sheet is to be classified as long term provisions. They include provision for employee benefits and others.

4. **Current Liabilities:** A liability is to be classified as current liability when it satisfies any of the following criteria:—

   (*a*) it is expected to be settled in the company's normal operating cycle;

   (*b*) it is held primarily for the purpose of being traded;

   (*c*) it is due to be settled within twelve months after the reporting date; or

   (*d*) the company does not have an unconditional right to defer settlement of the liability for at least twelve months after the reporting date. Terms of a liability that could, at the option of the counterparty, result in its settlement by the issue of equity instruments do not affect its classification.

   All other liabilities shall be classified as non-current. As per Schedule III of Companies Act, 2013, current liabilities are classified into:

   Short-term borrowings – are the borrowings which are due for payment within 12 months from the date of balance sheet. For example, loans repayable on demand, bank overdraft or cash credit from banks, loans from other parties repayable within 12 months from the date of loan, deposits and other loans and advances. Short term borrowings are classified as:

   (*a*) Loans repayable on demands

   (A) From banks

   (B) From other parties

   (*b*) Loans and advances from related parties

   (*c*) Deposits

   (*d*) Other loans and advances (specify nature).

   Borrowings shall further be sub-classified based the security such as secured and unsecured along with the nature of security if any shall be specified separately in each case. Further any such loans have been guaranteed by directors or others, the aggregate amount of such loans under each head shall be disclosed. Period and amount of default as on the balance sheet date in repayment of loans and interest, shall be specified separately in each case.

   Trade Payables – It refers to the amount payable against purchase of goods or services taken in the normal course of business. It includes both sundry creditors and bills payable.

Other Current Liabilities – It includes the following:

(*a*) Current maturities of long-term debt;

(*b*) Current maturities of finance lease obligations;

(*c*) Interest accrued but not due on borrowings;

(*d*) Interest accrued and due on borrowings;

(*e*) Income received in advance;

(*f*) Unpaid dividends;

(*g*) Application money received for allotment of securities and due for refund and interest accrued thereon.

(*h*) Unpaid matured deposits and interest accrued thereon;

(*i*) Unpaid matured debentures and interest accrued thereon;

(*j*) Other payables (specify nature).

Short-term provisions – Provisions in respect of future liabilities that are likely to be paid within 12 months from the date of the balance sheet. For example, provision for employee benefits, provision for expenses, provision for tax, proposed dividends etc.

II. ASSETS

Assets, like liabilities are categorized into non-current assets and current assets.

1. **Non-Current Assets:** Schedule III of the Companies Act, 2013 defines non-current assets as those assets that are not current assets. Non-current assets comprise of:

   a. Fixed Assets – Fixed Assets are further classified into:

   i. Tangible Assets **–** Assets with physical existence consisting of land, buildings, plant and equipment, furniture and fixtures, vehicles, office equipment, etc. If any tangible assets are under lease, they should be separately specified under each class of asset.

      a. Reconciliation of the gross and net carrying amounts for each class of assets at the beginning and at the end of the financial year showing additions, disposals, acquisitions through business combinations and other adjustments and the corresponding depreciation and impairment losses/reversals is to be disclosed separately.

      b. Where any sums have been written off or added due to reduction or revaluation of assets, then every subsequent balance sheet from the date of reduction or revaluation till five years should disclose the amount of reduction or increase.

   ii. Intangible Assets – Assets which do not have physical existence comprising Goodwill, brand name, trademarks, computer software, mastheads and publishing titles, mining rights, copyrights, patents and

other intellectual property rights, services and operating rights, recipes, formulae, models and designs, licenses and franchises, etc.

A reconciliation of the gross and net carrying amounts of each class of assets at the beginning and the end of the reporting period showing additions, disposals, acquisitions through business combinations and other adjustments and the related amortization and impairment losses/reversals shall be disclosed separately.

Where sums have been written-off on a reduction of capital or revaluation of assets or where sums have been added on revaluation of assets, every balance sheet subsequent to the date of such write-off, or addition shall show the reduced or increased figures as applicable and shall by way of a note also show the amount of the reduction or increase as applicable together with the date thereof for the first five years subsequent to the date of such reduction or increase.

iii. *Capital Work–in-Progress* – It refers to fixed assets under development/ construction and which have not been put to active use as on the date of balance sheet

iv. *Intangible assets under development* – It refers to intangible assets that are under development and not yet to commissioned for use.

***b. Non-Current Investments*:** These are investments made not with the intention to sell, but to hold for a long period. They can be classified into – trade investments made by a company in shares or debentures of another company to promote its own trade or business and other investments, such as investments in property, equity instruments, government securities, mutual funds, etc. They are further classified as:

(*a*) Investment property;
(*b*) Investments in Equity Instruments;
(*c*) Investments in preference shares;
(*d*) Investments in Government or trust securities;
(*e*) Investments in debentures or bonds;
(*f*) Investments in Mutual Funds;
(*g*) Investments in partnership firms;
(*h*) Other non-current investments (specify nature).

Under each of the above categories of non-current investments, the names of the bodies corporate in which the investment has been made, the nature and extent of the investment so made should be specified. The following other details that shall be disclosed are:

(*a*) Aggregate amount of quoted investments and market value thereof;
(*b*) Aggregate amount of unquoted investments;
(*c*) Aggregate provision for diminution in value of investments.

c. Deferred Tax Assets (Net): It arises due to the difference in accounting income and taxable income those results in taxable income being more than accounting income.

d. Long term Loans and Advances: These are loans and advances that are to be received after 12 months from the date of the balance sheet. Long-term loans and advances shall be classified as:

(*a*) Capital Advances;

(*b*) Security Deposits;

(*c*) Loans and advances to related parties (giving details thereof);

(*d*) Other loans and advances (specify nature).

The above shall also be separately sub-classified as:

(*a*) Secured, considered good;

(*b*) Unsecured, considered good;

(*c*) Doubtful.

Appropriate allowance for bad and doubtful loans and advances shall be made and disclosed separately for each type of loan or advance. If any loans and advances are due from directors or other officers of the company or from any firms or private companies in which the director is a partner or director or member, then such loans and advances should be separately stated.

e. Other Non-current Assets: Other non-current assets fall under the categories of long-term trade receivables and others (insurance claim receivable, amount due for asset sold etc.). They are classified as follows:

(*i*) Long-term Trade Receivables (including trade receivables on deferred credit terms);

(*ii*) Others (specify nature);

Long term Trade Receivables, shall be sub-classified as:

(*A*) Secured, considered good;

(*B*) Unsecured, considered good;

(*C*) Doubtful.

Allowance for bad and doubtful debts shall be disclosed under the relevant heads separately. Any debts due by directors or other officers of the company or any of them either severally or jointly with any other person or debts due by firms or private companies respectively in which any director is a partner or a director or a member should be separately stated.

2. **Current Assets:** As per Schedule III of the Companies Act, 2013, current assets are classified into six categories which are:

   a. Current Investments **–** Investments in equity instruments, preference shares, government securities, debentures or bonds, mutual funds and partnership firms that are to be liquidated within 12 months. They are classified as:

   (*a*) Investments in Equity Instruments;

   (*b*) Investment in Preference Shares;

   (*c*) Investments in Government or trust securities;

   (*d*) Investments in debentures or bonds;

   (*e*) Investments in Mutual Funds;

   (*f*) Investments in partnership firms;

   (*g*) Other investments (specify nature).

   Under each of these classes of current investments, the names of the bodies corporate in which the investment has been made, the nature and extent of the investment so made should be specified. The following other details that shall be disclosed are:

   (*a*) Aggregate amount of quoted investments and market value thereof;

   (*b*) Aggregate amount of unquoted investments;

   (*c*) Aggregate provision for diminution in value of investments.

   b. Inventories **–** Inclusive of raw materials, work-in-progress, finished goods, stock in trade, stores and spares, loose tools, etc that are held for trade in the ordinary course of business. They are shown as follows:

   (*a*) Raw materials

   (*b*) Work-in-progress

   (*c*) Finished goods

   (*d*) Stock-in-trade (in respect of goods acquired for trading)

   (*e*) Stores and spares

   (*f*) Loose tools

   (*g*) Others (specify nature)

   Any goods-in-transit shall be disclosed under the relevant sub-head of inventories and also their mode of valuation shall be stated.

   c. Trade Receivables **–** Amounts receivable for sale of goods or services rendered inclusive of trade debtors and bills receivable. The trade receivables which are due for more than 6 months are to be disclosed separately. Trade receivables are to be classified as follows:

   i. Secured, considered good

ii. Unsecured, considered good

iii. Doubtful

Any allowance made for bad doubtful debts should be disclosed as also the debts due from any director or officer of the company either jointly or severally shall also be disclosed.

d. Cash and Cash Equivalents **–** includes cash on hand and balances with banks, cheques, drafts on hand and balances with banks held as margin money. The following need to be disclosed separately:

i. Any earmarked balances with banks

ii. Balances with banks to the extent held as margin money or security against the borrowings, guarantees, other commitments shall be disclosed separately

iii. Repatriation restrictions, if any, regarding the cash and bank balances

iv. bank deposits having more than 12 month maturity

e. Short term Loans and Advances **–** Loans and advances realizable within 12 months from the balance sheet date. It is sub-classified into loans and advances to related parties and others. For each of the above sub-categories, the following shall be disclosed:

Loans and advances that are:

i. Secured, considered good

ii. Unsecured, considered good

iii. Doubtful

Any allowance made for bad doubtful debts should be disclosed as also the debts due from any director or officer of the company either jointly or severally shall also be disclosed.

f. Other Current Assets **–** All other current assets that do not fit into any other categories mentioned above are shown under other current assets. This might comprise of:

(*i*) Contingent liabilities shall be classified as:

(*a*) Claims against the company not acknowledged as debt;

(*b*) Guarantees;

(*c*) Other money for which the company is contingently liable.

(*ii*) Commitments shall be classified as:

(*a*) Estimated amount of contracts remaining to be executed on capital account and not provided for;

(*b*) Uncalled liability on shares and other investments partly paid;

(*c*) Other commitments (specify nature).

Check Your Progress – 2

6. As per Schedule III of Companies Act, 2013, which of the following is true regarding the treatment of calls-in-arrears in the final accounts of a company?
   a. The amount will be shown under the head 'current assets' on the assets side of the balance sheet
   b. The amount will be deducted from the share capital in the balance sheet
   c. The amount will be shown under the head 'current liabilities'
   d. The amount will be shown in the P & L account as a loss without showing it in the balance sheet
   e. The amount will be added to the share capital in the balance sheet.
7. A company had a deferred income tax liability arising from accelerated depreciation at the end of the year that has exceeded a deferred income tax asset relating to rent received in advance, which is expected to reverse in the next year. How should it be reported in the company's balance sheet?
   a. Shown as Current liability in Balance sheet
   b. Shown as Non-Current liability in Balance sheet
   c. Excess of Deferred tax liability over Deferred tax asset is shown as Current Liability in Balance sheet
   d. Excess of Deferred tax liability over Deferred tax asset is shown as Non-Current Liability in Balance sheet
   e. Shown under other current liabilities.
8. From the below given elements, identify the component that is **not** a part of other current assets?
   a. Brokerage on underwriting of shares
   b. Preliminary expenses
   c. Discount on issue of shares
   d. Unadjusted development expenditure
   e. Depreciation
9. What is the term that is used to refer to the financial instrument / contract entitling or may entitle its holder to equity shares?
   a. Ordinary shares
   b. Potential equity share
   c. Share warrants
   d. Redeemable shares
   e. Deferred ordinary shares

10. Shree Consultants shows a net profit of ₹ 30,00,000 after deducting the following expenses for that year: interest on debentures issued @ 8%, loss on sale of undertaking, Bad debts written off, liability for breach of contract and director's remuneration, totaling to an amount of ₹ 12,50,000. Which of the above stated expenses is not considered to calculate managerial remuneration?

    a. Bad debts written off
    b. Liability for breach of contract
    c. Director's remuneration
    d. Loss on sale of undertaking
    e. Interest on debentures

Illustration 4.3

The Trial Balance of TOS Ltd., as on 31-3-20xx is given below. Draw up the statement of Profit and Loss for the year ended 31-3-20xx and a Balance Sheet as on that date giving effect to the adjustments specified.

TOS Ltd.
Trial Balance as on 31-3-20xx

(₹ in crore)

Particulars		Dr.	Cr.
Share Capital			230.12
Reserves and Surplus:			
Share Premium	511.93		
Amalgamation Reserve	1.12		
Capital Reserve	0.19		
Contribution for Capital Expenditure	1.79		
Investment Allowance (utilized) Reserve	204.79		
Revenue Reserve	392.54		
Debenture Redemption Reserve	33.00		
Surplus in P/L Account	50.00		1,195.36
Loan Funds:			
Debentures	234.26		
Public Deposits (Unsecured)	62.79		
Secured loans	1,193.27		
Unsecured loans	560.98		2,051.30
Fixed Assets		1,605.39	
Capital Work-in-Progress		1,437.69	
Investments		248.77	

(₹in crore)

Particulars		Dr.	Cr.
Opening Inventory		282.22	
Accounts Receivables		310.26	
Cash and Bank		78.60	
Other Current Assets		409.81	
Loans and Advances:			
Subsidiary Companies	26.44		
Others	415.17	441.61	
Current Liabilities:			908.35
Provisions			112.80
Sales			2,686.11
Dividend and Interest Income from Investments			77.24
Interest on Sundry Advances, etc.			25.58
Other Income			106.35
Purchases		233.22	
Manufacturing and Selling Expenses		1,726.56	
Salaries, Wages and Other Employee Benefits		476.93	
Managerial remuneration		0.32	
Interest		141.66	
Auditor's remuneration		0.17	
		7,393.21	7,393.21

Adjustments

1. Provision for taxation to be created for the year at 23%.
2 Amount to be transferred to Debenture Redemption Reserve – ₹ 70.00 crore.
3. Payments to employees relating to prior periods to be made – ₹ 13.61 crore.
4. The Directors propose to declare a dividend of 35% on the equity shares.
5. Amount to be transferred to General Reserve – ₹ 54.40 crore.
6. Closing Inventory of finished and semi-finished goods as on 31-03-20xx was ₹ 408.85 crore.
7. Depreciation on fixed assets to be charged at ₹ 164.89 crore.
8. Details of investments are as follows:
   Investments in subsidiary companies:
   Quoted ₹ 34.19 crore:
   Unquoted ₹ 13.21 crore
   Investments in other companies: Quoted ₹ 68.54
   : Unquoted ₹ 132.83
9. Transfer ₹ 4.40 crore from investment allowance reserve to the profit & loss account.

Solution:

The Statement of Profit and Loss of TOS Ltd., for the year ended 31st March, 20xx

(₹in crore)

	Particulars	Current Year	
I.	Revenue:		
	a. Sales/Services rendered		2,686.11
	b. Dividend and interest income from investments		77.24
	c. Interest on sundry advances, deposits, customers' balances, etc.		25.58
	d. Other income		106.35
	Total		2,895.28
II.	Expenditure:		
	a. Accretion to stock of finished and semi-finished products:		
	Opening stock	282.22	
	Less: Closing stock	408.85	(126.63)
	b. Purchases		233.22
	c. Manufacturing and selling expenses		1726.56
	d. Salaries, wages and other employee's benefits		476.93
	e. Managerial remuneration		0.32
	f. Interest		141.66
	g. Depreciation		164.89
	h. Auditor's remuneration		0.17
			2,617.12
III.	Profit before tax (I – II)		278.16
IV.	Provision for taxation		64.00
V.	Profit after tax		214.16
VI.	Amount transferred to Debenture Redemption Reserve		70.00
	Add: Amount transferred from Investment Allowance (Utilized) Reserve		4.40
			148.56
VII.	Balance brought forward from last year	50.00	
	Less: Payments to employees for prior periods	13.61	
			36.39
			184.95
VIII.	Proposed Dividend on Equity Shares	80.55	
IX.	Transfer to General Reserve	54.40	
			134.95
X.	Balance carried to Balance Sheet		50.00

Balance Sheet of TOS Ltd., as on 31st March, 20xx

(₹ in crore)

	Particulars	Current Financial Year	
A.	**Equity and Liabilities:**		
	1. Shareholder's Funds:		
	a. Share Capital:		
	Equity		230.12
	b. Reserves and Surplus: (note no.1)		1,315.36
	2. Long term Borrowings (note no.2)		2,051.3
	3. Current Liabilities and Provisions (note no.3)		1,,179.31
			4,776.09
B.	**ASSETS:**		
	I. NON-CURRENT ASSETS		
	1. Fixed Assets:		
	a. Tangible Fixed Assets (original cost less depreciation)	1,440.50	
	b. Intangible Fixed Assets	-	
	c. Capital work-in-progress	1,437.69	2,878.19
	2. Non-Current Investments: (note no.4)		248.77
	3. Current Assets, Loans and Advances (note no.5)		1,649.13
	Total		**4.776.09**

Notes to Accounts:

Note 1: Reserves and Surplus (₹ in crores)

Particulars	₹	₹
i. Securities Premium Account	511.93	
ii. Amalgamation Reserve	1.12	
iii. Capital Reserve	0.19	
iv. Contribution for Capital Expenditure	1.79	
v. Investment Allowance Reserve		
vi. Investment Allowance (Utilized) Reserve	200.39	
vii. Revenue Reserve	446.94	
viii. Revaluation Reserve		
ix. Debenture Redemption Reserve	103.00	
x. Surplus in Profit and Loss Account	50.00	1,315.36

Note 2: Long term Borrowings (₹ in crores)

Particulars	₹	₹
a. Debentures including Bonds (Secured)	234.26	
b. Public Deposits (Unsecured)	62.79	
c. Secured Loans (other than Debenture and Bonds)	1,193.27	
d. Unsecured Loans	560.98	2,051.3

Note 3: Current liabilities and Provisions (₹ in crores)

Particulars	₹	₹
Current liabilities		908.35
Payments to employees for prior period		13.61
Provisions	112.80	
Add: Provision for tax	64.00	
Proposed dividends	80.55	257.35
		1,179.31

Note 4: Non-Current Investments (₹ in crores)

Particulars	₹	₹
a. Government Securities		
b. Investment in subsidiary companies		
i. Quoted	34.19	
ii. Unquoted	13.21	
iii. Others		
c. Quoted	68.54	
d. Unquoted	132.83	248.77

Note 5: Current Assets, loans and advances (₹ in crore)

Particulars	₹
a. Inventories	408.85
b. Sundry Debtors	310.26
c. Cash and Bank balances	78.60
d. Other Current Assets	409.81
e. Loans and Advances:	
i. Subsidiary Companies	26.44
ii. Others	415.17
Total	**1,649.13**

Illustration 4.4

Following is the Trial Balance of an Indian Company for the year ended March 31, 20xx. Prepare a Statement of Profit and Loss and Balance Sheet as on March 31, 20xx as per the provisions of Companies Act, 2013.

Particulars	Debit (₹)	Credit (₹)
Fixed Assets (Gross Value)	1,76,00,53,942	
Depreciation	9,10,48,042	
Increase in stock	1,08,09,019	
Raw material consumed	9,46,26,332	
Other manufacturing expenses	8,63,00,564	
Salaries, Wages	6,19,73,047	
Administration and Selling Expenses	5,26,66,682	
Financial charges	8,61,22,976	
Fringe Benefit tax	3,22,528	
Capital works-in-progress	5,31,88,777	
Current assets, loans & advances	94,90,93,179	
Misc. Expenditure	5,76,97,179	
Share capital		6,00,00,000
Reserves and surplus		94,52,48,010
Secured loans		80,60,55,001
Un-secured loans		25,64,69,044
Deferred tax liability		17,59,38,743
Accumulated depreciation		49,23,80,141
Current liabilities and provisions		21,67,88,262
Sales		31,58,30,804
Other income		1,38,70,527
Profit and loss account carried forward		1,94,86,688
Refund of tax for earlier years		18,35,047
	3,30,39,02,267	3,30,39,02,267

Solution:

Statement of Profit and Loss for the Period ended March 31, 20xx

(₹ in crore)

Particulars	Schedule	Year ended 31.3.20xx
I. Revenue from Operations		31,58,30,804
II. Other Income		1,38,70,527
III. Total Revenue		32,97,01,331
IV. Expenses:		
Raw materials consumed		9,46,26,332
Change in inventories		10,809,019
Other manufacturing expenses		8,63,00,564

Particulars	Schedule	Year ended 31.3.20xx
Employee benefit expenses		6,19,73,047
Admn. And selling expenses		5,26,66,682
Finance Costs		8,61,22,976
Depreciation and Amortization		9,10,48,042
Total Expenses		48,35,46,662
V. Loss for the Period before exceptional and extraordinary items and tax		-15,38,45,331
VI. Exceptional Items		-
VII. Loss before extraordinary items and tax		-15,38,45,331
VIII. Extraordinary Items		-
IX. Loss Before Tax		-15,38,45,331
X. Tax expense		
i. current year		3,22,528
XI. Loss for the Period from continuing operations		–15,41,67,859
XII. Profit/Loss for the Period from discontinuing operations		-
XIII. Tax expense for profit/loss on discontinuing operations		-
XIV. Net Profit/Loss for the Period from discontinuing operations (XII-XIII)		-
XV. Loss for the Period (XI +XIV)		–15,41,67,859

Balance Sheet as on 31st March 20xx

(₹ in crore)

Particulars	Note No.	As on 31.3.20xx
A. EQUITY AND LIABILITIES		
1. Shareholders' funds		
a. Share capital		6,00,00,000
b. Reserves and surplus	1	81,24,01,886
2. Long term Borrowings	2	1,23,84,62,788
3.Current liabilities and Provisions		21,67,88,262
Total		2,32,76,52,936

Contd….

B. ASSETS 1. Fixed Assets		
a. Net Tangible Fixed Assets	3	1,26,76,73,801
b. Capital works-in-progress		5,31,88,777
c. Current assets, loans and advances		1,00,67,90,358
Total		2,32,76,52,936

Notes to Accounts:

Note 1: Reserves and Surplus

(₹. in Crores)

Particulars	₹	₹
Reserves and surplus	94,52,48,010	
Profit and loss account (debit bal.)	(13,28,46,124)	81,24,01,886

Note 2: Long Term Borrowings

Particulars	₹	₹
Secured loans	80,60,55,001	
Unsecured loans	25,64,69,044	
Deferred tax liability	17,59,38,743	1,23,84,62,788

Note 3: Current Assets, Loans and Advances

Particulars	₹	₹
Current assets, loans & advances	94,90,93,179	
other current assets	5,76,97,179	1,00,67,90,358

Activity 4.2

a. List the broad heads and the order in which the assets and liabilities of a company should be arranged as per Schedule III of Companies Act, 2013.

_____

_____

_____

b. Classify the following under relevant heads as per Part I of Schedule III of Companies Act, 2013.

Deferred tax assets (net), vehicles, premium on redemption of debentures, interest on calls in advance, tax reserve, mining rights, unpaid dividend, deposit with customs authorities.

_____

_____

_____

4.7 Summary

- The financial statements of a company are prepared in accordance with the provisions of Schedule III of the Companies Act, 2013.
- As per Section 2 (41) of the Companies Act, 2013 financial year is defined as "financial year, in relation to any company or body corporate, means the period ending on the 31st day of March every year and where it has been incorporated on or after the 1st day of January of a year, the period ending on the 31st day of March of the following year, in respect whereof financial statement of the company or body corporate is made up."
- The statutory requirements governing the financial statements are covered in Sections 129, 133 and 134 of the Companies Act, 2013
- The statement of profit and loss is prepared in accordance with Part II of Schedule III of Companies Act, 2013. The schedule gives general instructions for the classification of revenues and expenses in the statement of profit and loss.
- Earnings Per share is one of the widely-used ratios which represents the amount of income earned by a company expressed 'per share' basis in its simplest form and is computed by dividing net income for the period by the weighted average number of equity shares outstanding for the period.
- As per Section 123 of the Companies Act, 2013, dividends can be paid out of profits only and prohibits the payment of any dividend out of capital or accumulated reserve. Also, dividends shall be paid in cash only.
- Part I of Schedule III of the Act gives the format of the balance sheet. The format is classified into Equity and Liabilities and Assets. The items under each category of equity and liabilities or assets should be shown below the balance sheet in the form of Notes to Accounts. Only the gross figures are given in the balance sheet.

- The provisions regarding depreciation calculation and presentation is shown in section 123 (2) while the computation of managerial remuneration is laid down in sections 197 and 198 of the Companies Act, 2013

4.8 Glossary

Assessment Year (AY) means the period of twelve months for computation of income tax payable to the government . In Indian scenario the AY starts from April 1 of every year and ending on March 31 of the following year. It is the year in which the taxes are paid for the income earned in the previous year. For example, the assessment year 20x1- 20x2 commences on April 1, 20x1 and ends on March 31, 20x2.

Capital Work-in-Progress refers to the investment made in fixed assets which are not yet ready for use.

Current Assets are assets which normally get converted into cash during the operating cycle of the firm.

Current Liabilities are liabilities that are normally payable within a year.

Declared Dividend is the dividend finally decided by the shareholders in the Annual General Meeting.

Deferred Tax is the tax effect of timing differences.

Dividend is the share of earnings distributed to the owners of a business.

Equity refers to the net worth of a firm consisting of paid-up equity capital plus reserves and surplus.

Extraordinary Items may be defined as material events and transactions distinguished by their unusual nature and by the infrequency of their occurrence. Examples include a major casualty such as fire; prohibition under a newly enacted law, etc.

Final Dividend is declared over and above the interim dividend, unless it is specifically mentioned to be adjusted. It is shown as an appropriation of profits.

General Reserve is the reserve designed to meet any unforeseen contingencies in the future,

Gross Profit is the difference between net sales and cost of goods sold. Gross profit is the first step in ascertaining profit in the statement of profit and loss and is used as an important analytical tool for analyzing a firm’s operating performance.

Operating Expenses are expenses that are incurred in the normal course of business operations and can be broadly classified into five categories: selling, administrative, depreciation and amortization, lease payments, and repairs and maintenance expenses.

Operating Profit is a company's profit from its core operations. It is arrived at after deducting operating expenses from operating revenues.

Previous Year is the financial year or the period of twelve months starting from April 1 of every year and ending on March 31 of the next year. For example, the relevant previous year for the Assessment Year 2016-17 is the financial year commencing on April 1, 2015 and ending on March 31, 2016.

Provision for Tax involves providing for tax payment which is calculated on profits earned.

Proposed Dividend is the dividend recommended by the directors. It is referred to as proposed dividend till it is adopted by the shareholders at the Annual General Meeting.

Reserves and Surplus is the accumulated profits of a business.

Shareholders' Funds are the funds owned by the shareholders i.e., share capital, retained earnings and reserves.

Share Capital is the capital of a company, represented by shares.

Share Warrants are financial instruments that give the holder of such warrants a right to acquire equity shares at a specified amount and on a specified date.

Specific Reserve is created for a specific purpose and can be used only for the designated purpose.

Total Revenue represents the sales revenue generated from the sale of goods or services to customers and other income.

4.9 Self -Assessment Test

1. Explain the statutory requirements governing financial statements.
2. Describe the accounting treatment for depreciation.
3. What are Assets? How are they classified as per Schedule III?
4. Give few examples of contingent liabilities.
5. Explain the classification of non-current liabilities.

4.10 Suggested Readings/Reference Material

1. Jain, S.P., and Narang, K.L. Financial Accounting. New Delhi: Kalyani Publishers, 2020.
2. Mukherjee Amitabha, and Mohammed Hanif. Modern Accountancy. Vol. 1&2. 3rd ed. New Delhi: Tata McGraw Hill Publishing, 2018.
3. T.S. Grewal et.al, Double Entry System of Book Keeping, Sultan Chand, 2021.
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5. S.N. Maheshwari, Suneel K Maheshwari et.al. Financial Accounting. 6th edition. Vikas Publishing House. 2018.
6. David Spiceland et.al. Financial Accounting. 5th edition. McGraw Hill. 2019.
7. N. Ramachandran and Ram Kumar Kakani. How to Analyze Financial Statements. 2nd edition. McGraw Hill Education India. 2019.
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9. Thomas R. Ittelson. Financial Statements: A Step-by-Step Guide to Understanding and Creating Financial Reports. Pan Macmillan India. 2017.
10. Aswath Damodaran. Narrative and Numbers: The Value of stories in Business. 2017.
11. A.Ramiaya, Guide to Companies Act, 2013, LexisNexis, 19th edition, 2020.
12. Taxmann's. Companies Act, 2013 with Rules, 15th edition, July, 2020.
13. G K Kapoor and Sanjay Dhamija. Company Law and Practice Book. 24th Edition. Taxmann. 2019.

Additional References:

1. Accounting Standards Quick Referencer, April 2019, Published by ICAI. (Pdf downloaded), https://resource.cdn.icai.org/55939asb45327.pdf
2. KPMG Spark. How to read a cash flow statement. 2020, https://www.kpmgspark.com/blog/how-to-read-a-cash-flow-statement
3. Ministry of Corporate Affairs (MCA). E-book on Companies Act, 2013 http://ebook.mca.gov.in/default.aspx

4.11 Answers to Check Your Progress Questions

1. (c) Schedule III

Financial statements of companies are to be prepared in accordance with the provisions of Schedule III of Companies Act, 2013.

2. (a) Both Statement of Profit and Loss and Balance Sheet

The Schedule III of Companies Act 2013 provides the format of both Statement of Profit and Loss and Balance Sheet

3. (a) ₹ 80,500

₹ 15,75,000 + ₹ 21,000 + ₹ 94,500 = ₹ 16,90,500

Managerial remuneration = ₹ 16,90,500 x 5 / 105 = ₹ 80,500

4. (d) ₹ 1,44,000

₹ 12,00,000 x 12/100 = ₹ 1,44,000

5. (d) ₹ 28,800

Dividend payable = ₹ 3,00,000 – ₹ 12,000 = ₹ 2,88,000 x 10/100 = ₹ 28,800

6. (b) The amount will be deducted from the share capital in the balance sheet.

The amount of calls in arrears will be deducted from the share capital in the balance sheet to arrive at paid up capital.

7. (b) Shown as Non-Current liability in Balance sheet

Deferred tax assets and liabilities are classified as current or noncurrent based on the classification of the related asset or liability. Hence, a deferred tax liability relating to depreciation of a fixed asset is noncurrent in nature. The deferred tax asset relating to rent received in advance that is expected to reverse in the following year is of current nature. There can be no netting of net current amounts and net noncurrent amounts.

8. (e) Depreciation

Depreciation written-off or provided is to be allocated under different asset heads or block of assets that is deducted in arriving at the value of such said assets. But the other items mentioned above, are the elements of miscellaneous expenditure, for which the amounts shown against these items, should be amounts to the extent they have not been written-off to the Profit and Loss Account or adjusted in any other manner.

9. (c) Share Warrants

They represent a right to future issue of shares.

10. (c) Director's Remuneration

Director's remuneration is not taken for deduction, while ascertaining the managerial remuneration, out of net profits of the company.

Unit 5

Introduction to Financial Statement Analysis

Structure

5.1 Introduction

In the previous unit, we discussed the form and contents of the three financial statements of companies – Profit and Loss account, Balance Sheet and Cash Flow Statements. We learn that financial statements are prepared with an objective of facilitating decision-making. They play a major role in providing the necessary framework for managerial decisions.

The information provided in the financial statements is not an end in itself and are inadequate to draw meaningful conclusions from it. In fact, financial statements communicate an enterprise's economic events in an aggregate form containing highly abstracted data. The analysis and interpretation of this data is of immense help in decision-making. Financial statement analysis consists of the application of analytical tools and techniques to the data in financial statements in order to derive from them measurements and relationships that are significant and useful for decision-making.

In this unit, we shall understand the nature, purpose and importance of financial statement analysis. We shall also be discussing the information needs of various users of financial statement analysis, sources of financial statement analysis, tools and techniques and the limitations of financial statement analysis.

5.2 Objectives

After reading through the unit, the student should be able to:

- Recall the nature of and need for financial statement analysis
- Explain the importance and purpose of financial statement analysis
- Identify the information needs of different users of Financial Statements
- State the uses of financial statement analysis
- Discuss the sources and tools and techniques of financial statement analysis
- Explain the limitations of financial statement analysis

5.3 Nature of Financial Statement Analysis

Financial statement analysis involves gaining an understanding of an organization's financial situation by reviewing its financial reports. The results can be used to make investment and lending decisions. Financial Statement Analysis is the art and science of examining and drawing inferences from the financial statements. Financial analysis is also known as analysis and interpretation of financial statements. It refers to the process of determining financial strengths and weaknesses of the firm by studying the relationship between the items of the balance sheet, profit and loss account and the other operative data. According to Stewart C. Myers, the author of Principles of Corporate Finance, "Financial statement analysis is largely a study of relationship among the various financial factors in a business as disclosed by a single set of statements, and a study of the trend of these factors as shown in a series of statements."

The term 'financial statement analysis' contains both 'analysis' and 'interpretation'. Therefore, a distinction should be made between the two terms. The term analysis is used to mean the simplification of the financial data by methodical classification of the data given in the financial statements, on the other hand, interpretation means, explaining the meaning and significance of the data so simplified." Analysis and interpretation are inter-linked and complementary to each other. Both are inter-dependent. Most writers use the term 'analysis' only to cover the meaning of both analysis and interpretation as the objective of analysis is to study the relationship between various items of financial statements by interpretation. The usage of the term "financial statement analysis" or simply "financial analysis" is to cover the meaning of both analysis and interpretation. The central focus of financial analysis is evaluating the company's ability to earn a return on its capital that is at least equal to the cost of that capital, to profitably grow its operations, and to generate enough cash to meet obligations and pursue opportunities.

Financial analysis can be used as a preliminary screening tool in the selection of stocks in the secondary market. It can be used as a forecasting tool of future financial conditions and results. It may be used as a process of evaluation and diagnosis of managerial, operating or other problem areas. Above all, financial analysis reduces reliance on intuition, guesses and thus narrows the areas of uncertainty that is present in all decision-making processes. Financial analysis does not lessen the need for judgment but rather establishes a sound systematic basis for its rational application. There are several methods used in analyzing financial statements, such as comparative statements, trend analysis, common size statements, funds flow and cash flow analysis, cost-volume-profit analysis and ratio analysis.

Just as a doctor examines the sick person by measuring his temperature, blood pressure, etc., before making his conclusion regarding the sickness and before giving his treatment, likewise the financial analyst also analyzes the financial statements with various tools of analysis before drawing conclusions about the financial health or weaknesses of an enterprise. The purpose of the analysis and interpretation of financial statements is essential to bring out the mystery behind the figures in financial statements.

5.4 Need for Financial Statement Analysis

In simple words, financial statement analysis is the meaningful analysis and interpretation of 'financial statements.' Over the years, the financial reporting system has become complex to interpret with the number of 'notes to accounts' and extensive disclosure requirements. They are constructed in accordance and in compliance with Generally Accepted Accounting Principles (GAAP), and are often difficult to understand. Thus the necessity to learn how to 'read' and 'understand' them has led to the employing of certain processes, tools and techniques. The techniques and skills adopted to understand the position and performance of an enterprise with a focus on the financial statements is termed as 'fundamental analysis' as against 'technical analysis' which focuses more on the stock market measures. The need for Financial Statement Analysis is as follows:

i. The Annual report is a substantial document containing huge volume of information in various formats. The balance sheet, the statement of profit and loss, cash flow statement and the accompanying schedules comprise accounting information on one hand, and on the other hand the narrative reports such as the director's report, the chairman's report & auditor's reports. A holistic view of all these statements is required to enable the users of financial statements to understand and interpret them to make the right economic decisions.

ii. Financial statements are further made complicated due to the presence of a number of alternative measurements of reporting events and transactions. These variations in accounting treatment among the various companies and also among countries could be smoothened to make a comparison and understanding more effective.

iii. Economic events and accounting entries often do not correspond or coincide making the financial reporting system imperfect. This could be partly attributed to the presence of accounting rules and norms on the timing, recognition and measurement front. This results in differing timings of economic events and their accounting recognition. This often leads to an unrealistic picture of the affairs of the company, which is taken care of while undertaking financial statement analysis.

iv. The financial statements are general purpose statements. Users of the financial statements are numerous with each having unique purpose and specific data requirements for making economic decisions. Hence, financial statement analysis becomes necessary to meet the requirements of these varied users.

v. The annual reports contain supplemental data which is of immense importance in interpreting the financial statements. This supporting data is not included in the financial statements and is only additional information useful for analysis. This information is useful for making some adjustments to the data to make them comparable, consistent over time, and more representative of economic reality.

vi. In India, financial statements ignore the substance and recognize the legal form of the transaction. This misleads the users of accounts in turn resulting in wrongful economic decisions.

5.5 Importance of Financial Statement Analysis

The importance of financial statement analysis can be discussed as follows:

Analytical Tool: Financial statement analysis involves the application of tools and techniques to general purpose financial statements and other data and information available in the annual reports to derive information useful for decision-making. Investors, creditors and others armed with the knowledge of financial reporting system and the analytical tools and techniques are better equipped to make informed investment decisions. Employees analyze financial statements to improve their bargaining position. Creditors analyze financial statements to assess the probability of loan repayment.

Forecasting Tool: Financial statement analysis is used as a tool to forecasting. Forecasting implies prediction of future. Forecasting can be for future earnings, ability to pay interest and debt maturities and profitability of a sound dividend policy. Using various techniques and tools, the analysts

determine the characteristics of the firm and its historical trends. With this background in mind, they prepare projected financial statements. In forecasting earnings, analysts do not restrict to analysis of financial statements but also assess the competitive environment and forecast economic and other factors.

Diagnostic Tool: Financial statement analysis can be used as a diagnostic tool. It can be used to diagnose the strengths and weaknesses of a firm by assessing the profitability, and the financial soundness of the company. Financial statement analysis is often used to identify the weaknesses in the procedures, management, systems in the organization.

Evaluation Tool: Financial statement analysis can be used to evaluate the profitability and the performance of the company. One can use the financial statements to evaluate the growth prospects of the company, the future of the company, the technological and innovative potential, management capability, etc. Mergers and acquisitions specialists continually search for undervalued companies – firms whose true worth exceeds their market price. Financial statement analysis assists these analysts in determining whether the companies are worth combining. By making several adjustments to the financial statements they value the firm under consideration. Credit analysts evaluate the financial disclosures to determine the debt service capability of the firm.

5.6 Purpose of Financial Statement Analysis

Financial statements analysis includes all the tools and techniques that are used to explain the major relationships in the financial statements. There are mainly two users of financial statements viz., external users and internal users. The main internal user is management and external users are creditors and investors. Investors want a reasonable return on their investment and a reasonable increase in their stake value. Both have risk and need to think to achieve a good return on their risk. Creditors and investors always try to invest in those groups of loans and investments, which allow them to average both the returns and the risk. Thus, for taking the decision to invest in these groups, creditors and investors mostly used financial statement analysis. Creditors and investors use financial statement analysis to judge:

a. The past performance and current position

b. The future potential risk i.e., prospective for the future

Assessment of Past Performance and Current Position

Past performance of the company is a major base for assessing the future performance of the company. Therefore, the investor or creditor should analyze the past sales, incomes, expenses, return on investment and cash flows. An analysis of current liquidity position also helps in assessing the ability of the company to pay the short-term loans. Current position analysis also helps in assessing the cash flows of the company. Debt to equity analysis helps to assess

the debt of the company in relation to the equity. Analyzing the company's past performance and current position is very important for achieving one of the general objectives of financial statement analysis.

Prospects for the Future

Past and present information helps to take decisions about the future such as:

Equity Investment Decision*:* The objective of investing in equity is to earn returns. Returns are uncertain and risky. Hence, financial statement analysis helps to forecast the return. An investor also tries to assess the earnings potential of the firm as it will affect the market price and the amount of dividends the company will pay.

Credit Extension Decision*:* The suppliers of credit to the firm such as commercial banks, financial institutions etc., face the risk of default in receiving the timely interest and return of principal. They use the financial statement analysis to determine the short-term credit generating ability of the firm to extend credit facilities. The risk of extending credit facility depends on how easy it is to predict the future prospects of the company i.e., profitability or liquidity.

Corporate Bond Investment Decisions*:* The investors in corporate bonds, i.e., debenture holders use financial statement analysis to look into the long run viability of the firm using the financial statements.

Competitors*:* Firms also analyze the financial statements of a firm to determine market share, pricing, product mix, strategies and growth plans of their competitors.

Thus, the major objective of financial analysis is to diagnose the information contained in the financial statements based on which, one can judge the profitability and financial soundness of the firm. The objectives of financial statement analysis will vary depending upon the perspective of users of the financial statements.

Creditors want to know about the short-term liquidity and long-term solvency. Short-term liquidity refers to how much cash a company requires to meet the current liabilities such as wages, salaries, interest and so on. Long-term solvency refers to the company's ability to generate funds to repay the long-term liabilities. Investors want to assess the profitability of the business. Creditors are interested in company's ability to generate cash, to pay interest and repay the principal amount and the relationship between the various sources of funds like debt and equity. Further they are interested in determining the credit risk, to decide the terms and conditions of a loan if sanctioned, interest rate, and maturity date etc.

Investors, who have invested their money in the firm's shares, are interested in the firm's earnings and future profitability. Financial statement analysis helps them in predicting the bankruptcy and failure probability of business

enterprises. After being aware of the probable failure, investors can take preventive measures to avoid/minimize losses. Dividend payments depend on the profitability of the concern and stock prices depend on the company's future prospectus. Even creditors also want to know the profitability of the operations because higher levels of profit provide the cash to repay their debts.

Labour unions also analyze the financial statements with an intent to assess whether an company can increase their pay and to know whether there can be an increase in productivity or increase in selling price of products/ services in order to absorb the increase in wages and salaries.

An investment analyst is more concerned about the future growth of the organization. Thus, his objective is to know whether the investment is sound or not. Management is interested in the company's financial condition, profitability and future possibilities. The main objective of management for analysis is that such analytical data compels them to view the company in the way important outsiders like creditors and investors must view it. Sometimes this analysis provides management with valuable clues to important changes in underlying operating, investing and financing activities.

5.7 Considerations in Financial Statement Analysis

Financial statement analysis involves three steps, i.e., selection, classification, and interpretation. The first is the selection of the information (data) relevant to the purpose of analysis of financial statements. Second, it is the methodical classification of the data, which is selected, and the third is the stage of drawing the inferences and conclusions.

The following considerations should be kept in mind for the analysis and interpretation of financial statements:

i. Firstly, the analyst should acquaint himself with the principles and postulates of accounting. He should have a clear understanding of the plans and policies of the management so that he may be able to find out whether these plans are properly executed or not.

ii. After determining the scope of analysis, the sphere of the work may be decided. For example, if the objective is to find out the earning capacity of the firm, first the analysis of income statement will be drawn. On the other hand, if only the financial position is to be studied, the analysis of the balance sheet is necessary.

iii. The financial information given in the statements should be re-grouped. Similar data should be grouped under the same heads. Thus, the data is reduced to a standard form.

iv. A relationship is established among financial statements with the help of tools and techniques of analysis such as ratios, trends, common size, funds flow, etc.

v. The information is interpreted in a simple and effective manner; the importance of the financial data is explained to assist decision-making.

vi. The conclusions drawn from interpretations are presented to the management in the form of reports.

5.8 Information Needs of Different Users of Financial Statement Analysis

Financial statement analysis is needed by so many people. The needs of different people like share-holders, creditors, regulators and tax authorities are different. The purpose of their financial statement analysis is also different. Investors want to know the earning power of their investment, creditors want to know the credibility of the firm and regulatory authorities and tax authorities want to know the profitability of the firm to make rules and to levy taxes. All these users are broadly categorized into (i) users with a direct financial interest, and (ii) users with indirect financial interest.

5.8.1 Users with Direct Financial Interest

The most important groups of persons who need financial statement analysis are those with a direct financial interest in the business. They need financial analysis to measure and collect information about how a business is performed. The most important users with a direct financial interest are investors and creditors.

Information Needs of Investors

Investors are the capital providers to the organization, in return for the risks and rewards of the ownership. Equity investors are the major fund providers in any organization. Equity shareholders safeguard both preference shareholders and creditors. Equity shareholders are entitled to receive any rewards only after meeting the claims for debt interest and preference dividend. Thus equity investors are the major risk takers. When a company prospers, they gain a lot more than preference shareholders and creditors and they are the main losers when the company collapses. Thus, the information needs of investors particularly equity share-holders is more comprehensive than other users of financial data.

Investors always need to know where their money is, and the current status and value of their account. Thus, they want to know the information relating to operations, profitability, financial condition and capital structure. For this, they require fundamental analysis information relating to a firm, an industry and the economy. Financial statements play a key role in preparing fundamental analysis. Investors also want to know the information relating to their securities and their trading in the market. Technical analysis is relating to examining trends in security prices, security trading volume is useful to the investors for getting information relating to securities.

Not only would the existing investors, even the prospective investors be interested in financial statement analysis to assess the viability of their proposed investments. Based on the profits disclosed by the company investors tend to predict the future dividend that can be paid by the company. They also tend to analyze the risk associated with their investment in the company. For example, steady profit indicates less risk and fluctuating profits indicate high risk of the firm.

Information Needs of Creditors

Creditors are the lenders of funds to the organizations. Funds may be lent in many forms and for different types of purposes. Trade creditors supply goods on credit and extend very short-term credit. The credit period ranges from 30 to 60 days. Usually, they do not receive interest for extension of credit. But occasionally they allow credit on early payments. Organizations may receive other short-term and long-term loans for different purposes and collect credit from various sources. The banks often provide short-term loans. Long-terms loans are provided by financial institutions or companies collect long-term funds in the form of convertible debts, public notes or bonds etc., from the public. Short-term creditors or long-term creditors always analyze the profitability of the organization for extending their term or relationship. The rate of interest charged by them also depends on the profitability. If the enterprise is earning constant or increasing profits, then the creditors will still be limited to their fixed rate of interest. If the firm is incurring losses, the creditors' principal amount may be placed in jeopardy. Thus, this uneven risk-reward ratio has a major effect on the creditors' point of view and the manner in which they analyze for the possibility of extension of credit.

Creditors are always concerned about the specific security provision of their loan such as the fair market value of assets pledged; repayment of principal and interest. They always look to the existence of resources and projections of future flows of funds and the reliability and stability of such flows. Thus, creditors are more conservative in their outlook and rely on financial statement analysis. The technique of financial statement analysis used by creditors is primarily concerned with the term, the security and the purpose of the loan.

In case of short-term loans, creditors are mainly concerned with the current financial position, the liquidity of the assets and the rate of turnover. In case of long-term loans, creditors require the valuation of bonds, projection of cash flows and fund flows and the evaluation of the long-term earning power of the organization and the ability of the firm to meet the fixed charges on the long-term commitments. Profitability information is also required by the creditors because the interest payments and loan repayments depend on the profitability. Creditors generally look at the asset values to ensure the assumption of going concern. Further creditors assess the financial health of a company to calculate the financial and bankruptcy risk to determine the probability of loan default.

Information Needs of Managers and Employees

Managers and employees of the enterprise have vested interest in the continued and profitable operations of the firm. Most incentive plans and bonus plans for employees are based on the profitability of the enterprise. Employees need financial statements to assess the company's profitability and its consequence on their future remuneration and job security.

Most of the terms and agreements that are entered into by managers during mergers and acquisitions are based on the information contained in the financial statements. Managers also utilize the financial statement information in many of their financing, investment or operating decisions. Structural ratios such as debt-equity ratio or interest coverage ratio are important in deciding how much long-term debt to be raised. For the employees, the profitability ratios are important in monitoring the viability of their pension plans, the incentive plans, etc.

Information Needs of Customers

Customers' relationship with the firm extends over many years. These relationships take the form of legal obligations often associated with guarantees, warranties, deferred benefits, consumer services, consumer redressal, etc.

Customers dealing with the company need to ensure whether the supplier company can give uninterrupted supply of goods on which their business is dependent in future. In order to analyze this they need to ensure whether the supplier has enough financial resources. This can be done using financial statement analysis.

They have vested interest in monitoring the financial viability of firms with which they have long-term relationship. Especially when a takeover is expected, or when there is a possible bankruptcy their interest over the firm's performance increases. Financial statements are one source of information that customers look for to make inferences about the viability of the firm. For example, in the case of a banking company, if the customers notice any signs of bankruptcy based on the financial statements, then they resort to withdrawal of their deposits.

5.8.2 Users with Indirect Financial Interest

Nowadays, the various groups and organizations in the society like government agencies and regulators have become the most important users of financial statement analysis information. They do not have any direct interest in the organization. They need financial information to make decisions on public issues. The most important users with an indirect financial interest are regulators and tax authorities.

Information Needs of Regulators

Regulators are the persons who have authority or can influence the rules guiding the preparation of financial statements. The regulators may be politicians and stock exchange authorities. Politicians need information for making legislations, for example, they may charge additional income tax levies on more profitable industries. Thus, politicians want industry-wise profit information and comparative analysis of profit statements. Stock exchange authorities' information needs are different from the politicians. Their main responsibility is to protect investors' interest. So they always try to make the companies more transparent in their operations. Thus, stock exchange authorities need the information relating to securities, profitability, operations and compliance information relating to existing laws and rules.

Information Needs of Tax Authorities

Government gets most of the revenues from collection of taxes. Under central, state and local laws, individuals and organizations pay many kinds of taxes including income tax, excise tax and sales tax. Tax authorities have the authority to assess and determine the tax liability of the business organization. The information needs of tax authorities are different from regulatory authorities. They want information relating to income statement only. The information relating to income statement may be production details or incomes and expenses. For example, sales tax authorities need only sales information and excise tax authorities need only production details and the income tax authorities need income statement details i.e., all incomes and expenses.

Rating agencies. A credit rating agency review the financial statements to give appropriate credit rating either to the company as a whole or to its securities.

Iinvestment analysts. Outside investment analysts who recommend the companies securities to their clients analyze the financial statements.

5.9 Sources of Financial Statement Analysis

Annual reports are the major source of data for financial statement analysis. They provide much of the information that users need to make economic decisions about businesses. Besides that the stock exchange reports, business periodicals and reports by credit and investment advisory services are also major sources for financial statement analysis. Let us discuss about the different sources of information for analysis.

Reports Published by the Company

Nowadays the annual reports of the companies are very comprehensive. So, naturally annual reports are the major source for financial analysis. The most authenticated source of financial information of a company is annual report. Annual reports are formal financial statements that are published yearly and sent to company stockholders and various other interested parties. It is mandatory to get the financial statements audited by an external independence

auditor who is a qualified Chartered Accountant holding Certificate of practice in India.The annual reports contain year's operations and discuss the companies' present position and future prospects.

Annual reports serve as a marketing tool to management as through which the company can relate, influence, preach, opine, and discuss any number of issues and topics. Annual report starts with an opening "Letter to Shareholders" addressed by the Chairman often that sets the tone of annual reports prepared for publicly held companies. The contents of such letters typically focus on topics such as the past year's results, strategies, market conditions, significant business events, new management and directors, and company initiatives.

We know that the main parts of the annual reports are:

(a) Financial statements - Financial statements are reports prepared by a company's management to present the financial performance and position at a point in time. A general-purpose set of financial statements usually includes a balance sheet, income statements, statement of owner's equity, and statement of cash flows. Balance sheet gives the position of assets and liabilities of the company as on 31st March which is the year end date in India. Income statement gives the information about the financial performance of the company during a particular financial year. Statement of owners' equity shows the changes in owners' equity during the year.

(b) Auditor's report - It is a certificate from statutory auditor on his letter head. He verifies whether the financial statements represent true and fair view of the financial position of the company based on the books of account and information provided to him. It provides proof of independent verification of the data presented. Audit report can be of three forms:

1. Clean report
2. Qualified report and
3. Disclaimer report.

(c) Director's Report – As per the provisions of Companies Act it mandatory on the part of directors to make out and attach to every balance sheet laid in an annual general meeting of the company, a report, known as director's report in which the directors present their report with respect to the state of company's affairs, the amount if any which they purposes to earn, to any reserve and dividend, materials changes and commitments if any, conservation of energy ; technology absorption and foreign exchange earnings. The board's report is generally signed by the chairman if authorized, otherwise it is signed by the company's manager or secretary if any, by not less than two directors of the company, one of whom shall be managing director

(d) Management's analysis of past year's operations (i.e., management and discussion analysis) – This gives an overview of the company's performance over the previous three years. It makes a comparison of the

most recent year with prior years. It discusses sales, profit margins, operating income, and net income. Factors that influenced business trends are outlined.

(e) Schedules/notes to the financial statements - .Notes and schedules are attached to financial statements of annual report to clarify various points. Notes should serially numbered and attached to income statement and balance sheet. Balance sheet and income statement shown in the annual report are precise normally one-page documents. If the reader of the financial statement need further information on any item of balance sheet or income statement he can go through the notes pertaining to that item

(f) Other information, that includes a summary of operations of five or ten year period. In the recent past, listed companies' have been publishing interim financial reports. These are unaudited reports. So care should be taken while using these statements for analysis. These statements give the signals about the significant changes in company's earnings trend.

Financial statement information is one of the many information sources available to the stake-holders and others as outlined in our earlier units. However, there is considerable availability of material relevant for financial analysis outside the corporate annual reports too.

Stock Exchange Reports

All public companies must file their annual, quarterly and current reports to the stock exchange authorities. These statements are available to the general public with a small charge. Generally, the companies submit their forms in a specified format. More information about the financial statements is available in these reports than the published annual reports. Quarterly reports and interim reports submitted to the stock exchanges give valuable information. For example, in the US, the companies must submit current report (Form 8 K) within a few days of the date of occurrence of certain significant events. Accordingly, in India, the SEBI Listing Regulations 2015 specify various reports that have to be submitted to the exchange by a listed company such as the compliance certificate on maintenance of share transfer facility, quarterly submission of report on investor complaints, quarterly report on corporate governance etc. These reports are very important because these are the first indicators of important changes that may affect the company's financial performance in the future. Now, all the reports are available in the stock exchange websites.

Business Periodicals; Credit and Investment Advisory Services

Financial analysts must keep in touch with the events in the financial world. The best source of financial news is the magazines or newspapers published by the stock exchanges. They give information about day-to-day changes in the business environment. Periodicals like – business week, Forbes and Fortune are very helpful magazines for financial information. For further financial information about the companies, the publications of services as Standard &

Poor's and Reuters are useful. Data on industry norms, average ratios and relationships and credit ratings are available from credit rating agencies like CRISIL, ICRA, CARE and ONICRA. These reports and studies provide a lot of information to the financial analysts. Some agencies provide financial information in a summarized form, which will help for analyzing and calculating various ratios.

Other Sources

In addition to the above sources there are some other sources, which provide data about the company. For example, most academic libraries and public libraries may have available computerized search system and computerized database that can be useful for the financial analysis. Some Internet websites also provide the past and present data of various companies.

Today, a number of computerized search systems and computer databases exist that greatly facilitate financial analysis of companies. Their research material and information supplements enhance the analytical process. In fact, these sources provide periodical information and broad array of it, than those disclosed in the financial statements of companies. The newspapers, company websites and more particularly financial media inform significant company events on a daily basis. The easiest source to keep abreast of the events of different companies is to read the financial newspapers such as Economic times, Financial express, etc. The next is to read (weekly and monthly) periodicals like ***Business India, Business Today*** and trade journals. In addition to giving specific information on the companies desired by the analyst, they also provide economic, industry and other information required for a holistic view of the company performance. Exhibit 5.1 gives a list of the print media and website sources for financial information.

Exhibit 5.1: Sources of Print media and Websites

Few sources of print media and websites:

- Stock Exchange, Mumbai www.bseindia.com
- National Stock Exchange of India (NSE) www.nse-india.com
- Fortune Magazine
- Encyclopedia of American Business
- Hoover's Handbooks
- Business week
- Forbes Global
- SEC website
- Moody's Manuals
- S&P Stock Reports

Contd….

- Industry & Trade Outlook etc.
- The Financial Express (Newspaper, daily)
- Capital Market, Fortnightly magazine on capital market with features as stock watch, corporate scoreboard and news
- Retail Biz, monthly magazine for the retail sector. Features, general articles, news, and commentary
- Economic and Political Weekly
- Business Standard (Magazine, monthly)
- Business Today (Magazine)
- Business Week
- Business World (Magazine, weekly)
- Trade India
- Intelligent Investor
- Industrial Economist South India
- Ind Scan Projects, Reports
- Forbes Magazine
- BIZ INDIA USA (Indian American Magazine)
- Asia Inc Magazine
- McKinsey Quarterly
- The Economist
- Bloomberg Business Week
- Inc. Business magazine

Source: ICFAI Research Center

However, there are several grounds on which financial statements are comparatively more advantageous over other sources:

- Financial statement information is more reliable than other information sources.
- The existence of auditors to certify the financial statements can be perceived as the rationale for reliability. The information from financial statements can be said to be lower-cost information. The external sources of information are costlier since most agencies provide accessibility to databases on the payment of fees.
- Financial statements are general purpose financial information reports that fit for various interested parties. However, the other sources of information may be for specific purpose and cannot be used as a basis for decision-making by all parties.

Check Your Progress – 1

1. Which of the following statements indicate the inter-relationship between the terms 'analysis' and 'interpretation,' referred to in financial statement analysis?
   a. Both are interdependent
   b. Contradictory to each other
   c. Unilateral in nature
   d. Subjective
   e. Both are supplementary
2. What is the type of analysis the companies' follow to measure the intrinsic value?
   a. Stock market analysis
   b. Credit analysis
   c. Fundamental analysis
   d. Technical analysis
   e. Efficient market analysis
3. Who are the indirect users of a company's financial statements?
   a. Investors
   b. Creditors
   c. Tax authorities and Regulators
   d. Managers and employees
   e. Customers
4. Arjun, the finance manager of M/s Oasis Limited, has approached a bank to acquire a loan for the construction of additional warehouse to company premises that amounts to ₹ 7,00,000. The creditor required company financial statements of the past five years, for assessment. From the following, detect the prime objective of a creditor, in conducting an analysis of the financial statements.
   a. To determine the firm's capital structure
   b. To decide upon the company's past profitability
   c. To forecast the future earnings of the company
   d. To decide whether the company has the ability to repay interest and principal on borrowed funds.
   e. To determine the stability of the firm's earnings
5. Financial statement analysis involves
   a. Use of analytical tools and techniques to the data in financial statements for decision-making
   b. Preparation and presentation of financial statements
   c. Preparation of supplement data for better understanding of financial statements
   d. Adjusting the financial statements to the price level changes
   e. Preparation of cash flow statement

Activity 5.1

Assume you are the prospective investor who is looking out for a long-term investment opportunity with assured returns. Your friend suggested investment in stocks of XYZ Limited. What information about XYZ Limited is required by you to take the decision and how can such information be collected?

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5.10 Tools and Techniques of Financial Statement Analysis

Financial statement analysis can be made by comparing the figures of one period with the figures of preceding or succeeding periods. Similarly analysis can be made by comparing figures of one company with another company of the same industry. In undertaking such traditional comparative analysis, the analysts use a number of tools and techniques. The analytical tool used in the framework for undertaking financial statement analysis is:

- Cross-Sectional Analysis
- Time Series Analysis
- Cash Flow Analysis

5.10.1 Cross-Sectional Analysis

Cross-sectional analysis involves comparison with different entities belonging to the same industry or comparing with industry average. More specifically, the study of relationships within a set of financial statements at a point of time is referred to as cross-sectional analysis. In simple words, cross-sectional analysis is the comparison of one entity with other entities at the same point of time. This is frequently applied when the analysts desire to infer the performance and the financial position of a particular company with other companies belonging to the same industry. There are two techniques of cross-sectional analysis:

- Common-Size Statements
- Financial Ratio Analysis

Common-Size Statements

The development of common size statements evolved to confront the problem of comparing the financial statements of different sized firms. Common-size statements help to bring the financial statements of diverse size to a common-size format, which facilitate their comparison. This statement results from expressing the financial statements data in terms of per cent to total. The percentage analysis is used to show the relationship of each component to the

total of the balance sheet within a single statement. In this analysis of the balance sheet, each asset item is stated as a per cent of the total assets. Each liability and stock-holders' equity item is stated as a per cent of the total liabilities and stock-holders' equity.

Common size statements are used to analyze components and their proportion within an individual statement, however their use is limited. They are more frequently used and are significant for comparison between firms.

Exhibit 5.2 presents the common size balance sheets of Infosys Limited as on March 31, 2021 and March 31, 2020

Exhibit 5.2: Common size balance sheets of Infosys as on March 31, 2021 and March 31, 2020

(₹ in crore)

Particulars	31-03-2021	(%)	31-03-2020	(%)
I. Equity and Liabilities				
1. Shareholders' Funds	71,531	76.15	62,234	76.79
2. Non-Current liabilities	4,786	5.09	3,587	4.43
3. Current liabilities	17,622	18.76	15,220	18.78
Total Equity and Liabilities	93,939	100.00	81,041	100.00
II. Assets				
Non-Current Assets	23,539	25.06	23,305	28.76
Investments	22,118	23.54	13,916	17.17
Current Assets	48,282	51.40	43,820	54.07
Total Assets	93,939	100.00	81,041	100.00

Source: Infosys Annual Report 2020-21

The composition of Infosys assets slightly shifted from investments to current assets. No change in fixed assets. Net worth showed a small shift to provisions from stake-holders' equity. The main conclusion to be drawn from this analysis of Infosys is that current assets and current liabilities make up a large portion of the company and that the company's financial structure has no long-term liabilities.

Financial Ratio Analysis

Financial ratios are the most commonly used techniques for analysis of financial statements. This technique involves the comparison of ratios across firms. Ratio is a measure of relationship between two data. Ratio analysis is used both for cross-sectional analysis and time series analysis. Ratio analysis is used for assessing credibility, profitability and operating efficiency of the organization when comparing with other enterprises or with industry standards.

5.10.2 Time Series Analysis

Time series analysis involves the study of financial statements over a period of time. This analysis involves setting consecutive balance sheets, income statements side by side and reviewing changes year-to-year. This analysis reveals the direction, speed and the extent of trend. Time series analysis is often referred to as comparative financial statement analysis. There are three techniques of Time Series Analysis:

- Year-to-Year Change Analysis or Comparative Analysis
- Trend Statements
- Financial Ratios

Year-to-Year Change Analysis or Comparative Analysis

This technique involves the comparison of absolute figures over the years. It involves analysis of year-to-year changes in individual line-to-line items. In this analysis, generally financial statements are compared over relatively short periods such as two or three years. This technique of comparison is straight-forward manageable and understandable. The mandatory requirement under the Companies Act to provide at least two consecutive years of figures of financial statements is in line with the idea of making a simple comparison. This simple comparison is sometimes made in percentages, the percentage changes being expressed in terms of previous year figures. You can refer to the below given Exhibit 5.3 for an example of year-to-year change analysis.

Exhibit 5.3: Year-to-Year Change Analysis of Infosys Ltd. for March 31, 2021

(₹ in crore (Non-Annualized))

Infosys Technologies Ltd.	Year ended March 31		Increase/ decrease	% increase/ decrease
	2021	2020		
Revenue:				
Operating income	85,912	79,047	6,865	8.68
Other income	2,467	2,700	(233)	(8.63)
Total Revenue	88,379	81,747	6,632	8.11
Expenses:				
Employee benefit expenses	45,179	42,434	2745	6.47
Cost of technical sub-contracts	9528	8447	1081	12.8
Travel expenses	484	2241	(1757)	(78.4)
Cost of software packages and others	2058	1656	402	24.2
Communication expenses	464	381	83	21.78
Consultancy and Professional charges	999	1066	(67)	(6.28)

Depreciation and amortization expenses	2321	2144	177	8.25
Finance Cost	126	114	12	10.5
Other expenses	2743	2787	(44)	(1.58)
Total Expenses	63,902	61,270	2,632	4.30
Profit before tax	24,477	20,477	4,000	19.5
Tax expense				
I. Current tax	6013	5235	778	14.87
II. Deferred tax	416	(301)	717	238.2
Profit After Tax	18,048	15,543	2,505	16.12

Source: Compiled from Infosys Annual Report 2020-21

In the above table, the most important change is that the operating income increased by ₹ 6865 crore or 8.68 % whereas Profit Before Tax increased by ₹4,000 crore or 19.5% and net profit or Profit after Tax increased by ₹ 2,505 crore or 16.12% . Total expenses increased by ₹ 2,632 crore or 4.30% and employee benefit expenses are increased by ₹ 2,745 crore or 6.47%.

Trend Statements

This technique is used when comparing more than three years financial statements. This technique involves constructing a trend statement using a base year given the value of 100. This technique is also called as index number trend analysis. The base year figures are all taken as 100 and should be so selected that it represents a normal period with regard to business conditions. Then the items of subsequent period are expressed in terms of base period (relative to their value in the base period). Following Exhibit 5.4 gives the total revenues and operating incomes of a company from 2016-17 to 2020-21. Index number trend analysis is done by taking the year 2016-17 as base:

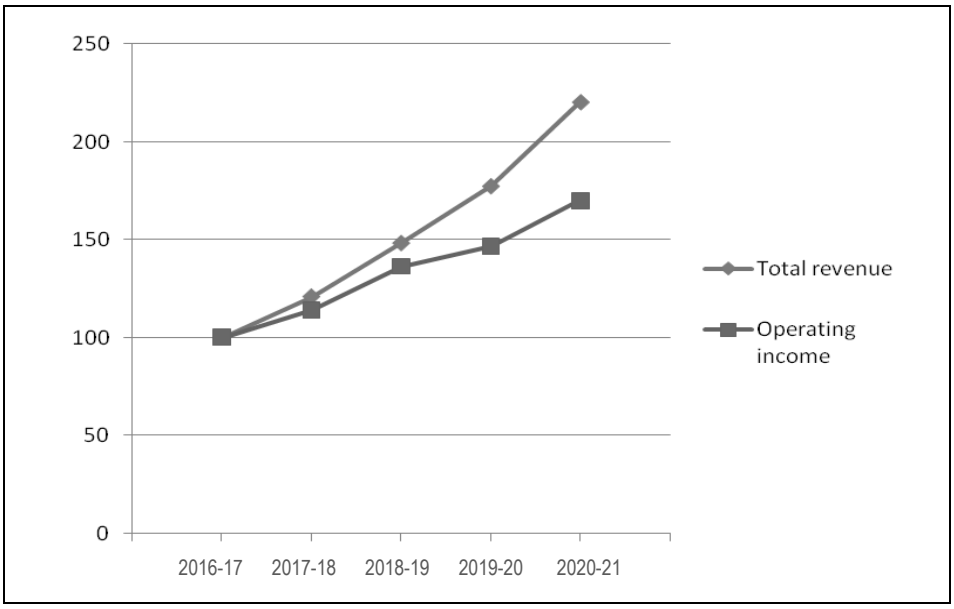
Exhibit 5.4: Total Revenues and Operating Incomes – 2016-17 to 2020-21

(₹ in crore)

(Non-Annualized)	Year ended March 31				
	2020-21	**2019-20**	**2018-19**	**2017-18**	**2016-17**
Total Revenue	50,133	40,352	33,734	27,501	22,742
Operating income	13,381	11,533	10,723	8,968	7,861
Trend Analysis (in Percentages)					
Total revenue	220.44	177.43	148.33	120.93	100
Operating income	170.22	146.71	136.41	114.08	100

Figure 5.2 is the graphical representation of the above index number trend analysis. Here also it is showing that increase in net revenue is lower than the net increase in operating incomes. This is mainly because of increase in other expenses.

Figure 5.2: Trend Analysis Using Index Numbers



Financial Ratio Analysis

The technique of ratio analysis is also used frequently for time series analysis. This technique involves the comparison of ratios of consecutive periods to draw inferences regarding the strengths, profitability or liquidity of the firm over a time period.

5.10.3 Cash Flow Analysis

Cash flow analysis is used for evaluating the sources and uses of cash. This analysis gives detailed information about the company's financial resources and employment of those resources. Take the Infosys cash flow statement. It shows Infosys generated ₹ 19,902 crore from operating activities. It has used net of ₹ 6,309 crore for investing activities, mainly for purchase of fixed assets. Then it has used ₹ 9,566 crore of cash for financing activities. This preliminary analysis shows Infosys had considerable cash inflows from operating activities that have been used to a large extent for purchasing fixed assets.

Even though the simple cash flow analysis gives much more information about the sources and uses of funds, it is important to analyze cash flows in detail.

Other Tools

Other tools like debt valuation and equity valuation models also help in financial statement analysis. Present value theory is used in valuation of debt and equity. Another tool is efficient market hypothesis. This tool is used to assess the reaction of market prices to financial and other information.

Check Your Progress – 2

6. Which of the following is not a tool / technique of financial statement analysis?
   a. Common size statements
   b. Ratio analysis
   c. Random sampling analysis
   d. Trend analysis
   e. Cash flow analysis
7. This technique is used when comparing more than three years financial statements. Identify the technique.
   a. Trend analysis
   b. Common size analysis
   c. Comparative analysis
   d. Ratio Analysis
   e. Cash flow Analysis
8. Cross-sectional analysis involves comparison of figures of
   a. two different years
   b. two different statements
   c. inter linkage of figures in a single statement
   d. two different entities belonging to same industry
   e. two different entities belonging to different industries
9. Which of the following tools gives detailed information about the company's liquidity position?
   a. Ratio analysis
   b. Cash flow analysis
   c. Comparative analysis
   d. Common size analysis
   e. Trend analysis
10. Ram, using the financial statements of XY Limited for the past three years tried to project the profitability position of the company for the coming financial year. He has used financial statement analysis as a:
    a. Diagnostic tool
    b. Analytical tool
    c. Forecasting tool
    d. Evaluation tool
    e. Examination tool

Activity 5.2

a. There are three companies: X Ltd., Y Ltd., and Z Ltd., manufacturing a particular product. Their sales revenue and operating expenses for the year 20xx-20x1 is as follows:

(₹ in lakh)

Company	Net Sales	Operating Expenses
X Ltd.	300	255
Y Ltd.	1,500	1,200
Z Ltd.	1,400	1,050

Which company has the highest operating profit to sales revenue and by how much?

_____

_____

b. The following particulars belong to the business of Ramesh & Company:

Preference share capital ₹ 2,00,000; Equity share capital ₹ 4,00,000; Profit and loss account ₹ 1,50,000; Secured loan ₹ 1,00,000; Current liabilities ₹ 1,50,000; Fixed assets ₹ 6,00,000; Investments ₹ 1,50,000; Current assets ₹ 2,00,000; Loans and advances ₹ 50,000.

You are required to prepare a common size balance sheet.

_____

_____

c. The following is the income statement details of A Ltd., for the years 20xx and 20x1.

Particulars	31-12-20xx (₹)	31-12-20x1 (₹)
Gross sales	1,20,200	1,35,800
Sales returns	5,200	3,800
Cost of goods sold	80,000	84,000
Operating expenses	12,000	9,000

Prepare a comparative income statement and analyse the profitability position of A Limited based on the statement.

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5.11 Limitations of Financial Statement Analysis

Financial statement analysis is a powerful mechanism for determining the strengths and weaknesses of a firm. The analysis is based on the information available in the financial statements. The financial analysis suffers from serious inherent drawbacks; some of the serious limitations of the financial statements analysis are as follows:

i. Past performance however good is not the best predictor of future.

ii. Financial analysis relies on information that must be timely and relevant. The more outdated the information the more outdated it makes the financial statement analysis.

iii. Interim financial statements may be misleading and incomplete since they are unaudited and their reliability is reduced.

iv. Financial analysis is based upon only monetary information and non-monetary factors are not considered.

v. Financial analysis does not consider changes in the price levels.

vi. The changes in the accounting procedure may often make financial analysis misleading.

vii. Analysis involves use of tools and techniques, the appropriate application of which governs the conclusions drawn. The application of techniques and tools can themselves limit the conclusions drawn.

viii. Financial analysis involves interpretation of data and information which when subjected to personal bias results in wrong conclusions.

ix. Analysis is not an end in itself but a means. The analyst has to make the interpretation and draw his own conclusions.

5.12 Summary

- Financial statement analysis involves the application of analytical tools and techniques to the financial data to get information that is useful in decision-making.
- Foundation of any good analysis is a thorough understanding of the objectives to be achieved and the uses to which it is going to be put. Such understanding leads to an economy of effort as well as to a useful and most relevant focus on the points that need to be clarified and the estimates and projections that are required.
- Financial statement analysis is oriented towards the achievement of definite objectives. There are three types of users to whom financial statement analysis could be very useful. They are short-term lenders, long-term lenders and stockholders. Having defined the objectives, the next step is to decide the tools of analysis.
- The financial statement analysis is based on the information available in the financial statements. Thus financial analysis suffers from serious inherent drawbacks associated with financial statements.

5.13 Glossary

Auditor's Report is a report given by the statutory auditors certifying the validity and reliability of the organization's financial statements.

Cash flow analysis is used for evaluating the sources and uses of cash. This analysis gives detailed information about the company's financial resources and employment of those resources.

Cross-sectional analysis involves comparison with different entities belonging to the same industry or comparing with industry average.

Creditors are the lenders of funds to the organizations.

Common size statements are used to analyze components and their proportion within an individual statement, however their use is limited. They are more frequently used and are significant for comparison between firms.

Comparative statements are horizontal analysis statements that help in analyzing the change from one year to another. They are thus also called as year-on-year change analysis.

Debt Valuation models are used to determine the present value of a debt's future interest payments.

Director's Report is a statement by the Directors in the annual report of a company disclosing information about the performance of the company and its future prospects.

Equity Valuation models are used to measure the value of a firm. Investors use this valuation to determine the fair /intrinsic value of a stock/security.

Financial statement analysis is largely a study of the relationship among the various financial factors in a business as disclosed by a single set of statements, and a study of the trend of these factors as shown in a series of statements.

Interim Financial Statements are financial statements that are prepared during the accounting year. They are usually unaudited statements.

Investors are the capital providers to the organization, in return for the risks and rewards of the ownership. Equity investors are the major fund providers in any organization.

Long-term solvency refers to the company's ability to generate funds to repay the long-term liabilities.

Ratio analysis is a technique that involves the comparison of ratios of consecutive periods to draw inferences regarding the strengths, profitability or liquidity of the firm over a time period.

Trend statements technique is used when comparing more than three years financial statements. This technique involves constructing a trend statement using a base year given the value of 100. This technique is also called as index number trend analysis.

Time series Analysis involves the study of financial statements over a period of time. This analysis involves setting consecutive balance sheets, income statements side by side and reviewing changes year-to-year.

Short-term liquidity refers to how much cash a company requires to meet the current liabilities such as wages, salaries, interest and so on.

5.14 Self-Assessment Test

1. What are the considerations to be kept in mind by the analyst for the analysis and interpretation of financial statements?
2. Write a note on the need for financial statement analysis.
3. What are the limitations of Financial Statement Analysis?
4. What are the various tools and techniques of Financial Statement Analysis?

5.15 Suggested Readings/Reference Material

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2. KPMG Spark. How to read a cash flow statement. 2020, https://www.kpmgspark.com/blog/how-to-read-a-cash-flow-statement
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5.16 Answers to Check Your Progress Questions

1. (a) Both are inter-dependent

Analysis and interpretation are inter-linked and complementary to each other. Both are inter-dependent. Most writers use the term 'analysis' only to cover the meaning of both analysis and interpretation as the objective of analysis is to study the relationship between various items of financial statements by interpretation.

2. (c) Fundamental analysis

The techniques and skills adopted to understand the position and performance of an enterprise with a focus on the financial statements is termed as 'Fundamental Analysis' as against 'Technical Analysis' which focuses more on the stock market measures.

3. (c) Tax authorities and regulators

Various groups and organizations in the society like government agencies, regulators have become the most important users of financial statement analysis information. They do not have any direct interest in the organization. They need financial information to make decisions on public issues. The most important users with an indirect financial interest are regulators and tax authorities.

4. (d) To decide whether the company has the ability to repay interest and principal on borrowed funds

Creditors always concerned about the specific security provision of their loan such as the fair market value of assets pledged; repayment of principal and interest. They always look to the existence of resources and projections of future flows of funds and the reliability and stability of such flows. Thus, creditors are more conservative in their outlook and rely on financial statement analysis.

5. (a) Use of analytical tools and techniques to the data in financial statements for decision-making.

Financial analysis is also known as analysis and interpretation of financial statements. It refers to the process of determining financial strengths and weaknesses of the firm by studying the relationship between the items of the balance sheet, profit and loss account and the other operative data.

6. (c) Random sampling analysis

It is a statistical tool and not a tool of financial analysis

7. (a) Trend analysis

The trend analysis technique is used when comparing more than three years financial statements. This technique involves constructing a trend statement using a base year given the value of 100. This technique is also called as index number trend analysis.

8. (d) Two different entities belonging to same industry

Cross-sectional analysis involves comparison with different entities belonging to the same industry or comparing with industry average.

9. (b) Cash flow analysis

Cash flow analysis is used for evaluating the sources and uses of cash. This analysis gives detailed information about the company's financial resources and employment of those resources.

10. (c) Forecasting tool

Financial statement analysis is used as a tool to forecasting. Forecasting implies prediction of future. Forecasting can be for future earnings, ability to pay interest and debt maturities and profitability of a sound dividend policy.

Unit 6

Financial Ratio Analysis

Structure

6.1 Introduction

In the previous unit, we discussed how to do financial statement analysis will be helpful to management and other stakeholders for decision-making. Financial statement analysis is oriented towards the achievement of definite objectives. The financial statement analysis will be very useful to short-term lenders, long-term lenders, and stockholders. The financial statement analysis is based on the information available in the financial statements. The limitations of financial analysis associated with financial statements were briefly discussed. Financial statements provide financial data, which requires analysis, interpretation and comparison. Internal users use this analysis for evaluating the efficiency of the management and the external users use it to decide upon whether the firm is good for investment. Thus, we see that besides financial statements, its analysis and interpretation are also very important. This analysis and interpretation of financial statements and their comparison with others form the major part of ratio analysis.

The financial statements contain quantitative information and may not provide qualitative information. Hence, it is necessary to interpret the financials, as to have an intra-firm performance analysis over a given period of time, and inter firm comparative analysis within the same industry.

Financial ratio analysis is the calculation and comparison of ratios, which are derived from the information in a company's financial statements. The level and historical trends of these ratios can be used to make inferences about a company's financial condition, its operations and attractiveness as an investment.

Ratio analysis is a very powerful tool used for measuring performance of an organization. It concentrates on the inter-relationship among the figures appearing in the financial statements. It helps to analyze the past performance of

the firm and also to make further projections. It is a process of comparing one figure against another, which makes a ratio, and the appraisal of the ratios to make proper analysis about the strengths and weaknesses of the firm's operations. The actual calculation of the ratios involves an application of the necessary formulae; however, it is the analysis of these ratios, which is significantly a complicated task, even for a skilled analyst. In this unit, we will be discussing the importance of ratio analysis, classification of ratios and limitations of financial ratios.

6.2 Objectives

After reading through the unit, the student should be able to:

- Recall the importance of ratio analysis
- Discuss the classification of ratios into income statement ratios, balance sheet ratios, cash flow statement ratios and valuation ratios
- Explain the limitations of financial ratios.

6.3 Importance of Ratio Analysis

Ratios are the best tools for measuring liquidity, solvency, profitability and management efficiency of the firm. The importance of ratio analysis is discussed below:

i. It helps in analyzing the probable causal relationships among different items after analyzing the past results.

ii. These ratios that are derived after analyzing the past results help the management to prepare budgets, to formulate policy, and to prepare a future plan of action.

iii. It takes the time dimension into consideration through trend analysis. Trend analysis using ratios helps in understanding the performance of the company over a period of time.

iv. It is also called the surveyor of efficiency as it throws light upon the efficiency of the management and the degree of utilization of assets by the business.

v. Ratio analysis helps in making inter-firm comparisons and also comparisons between the different divisions of the company.

vi. The short-term liquidity position of the firm can be easily ascertained by applying the liquidity ratios. Often a firm may have the assets, however may be short of short-term funds. Liquidity ratios help in understanding the firm's short-term liquidity position.

6.4 Classification of Ratios

Traditionally, ratios are classified on the basis of financial statements i.e., profitability ratios, activity ratios, liquidity ratios and solvency ratios. Profitability ratios are calculated on the basis of statement of profit and loss; balance sheet is taken as basis for calculating the liquidity and solvency ratios; and for determining efficiency, productivity of resources, ratios were calculated

on the basis of statement of profit and loss and the balance sheet. This classification was found to be crude and unsuitable for determining the profitability and financial position of the business concern. In order to achieve the purpose and to make ratios serve as a tool for financial analysis, ratios are classified as:

- Income Statement Ratios
- Balance Sheet Ratios
- Cash Flow Statement Ratios
- Valuation Ratios

6.4.1 Income Statement Ratios

Income statement or the statement of profit and loss contains varied data that is used for analyzing the profitability of the company. Profitability ratios focus on the sufficiency and sustainability of an entity's earnings. Income statement ratios are very important for all the users of financial statements. For equity share-holders, income is the most important determinant of changes in their share values. They are concerned with the firm's ability to generate, sustain and increase profits. Analysis of profit is vital to the investors since they derive revenue in the form of dividends. Also increased profit leads to increased market price leading to increase in capitalization.

For creditors, income and operating cash flows are common and desirable sources of interest and principal repayments. For the managers, profitability is often used as a performance measure.

Following are the important income statement ratios, which are necessary for analyzing profitability of a business.

Gross Profit Ratio

The gross profit ratio measures the relationship of gross profit to net sales and is usually expressed as a percentage. Thus, it is calculated by dividing the gross profit by sales.

$$\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Net Sales}} \times 100$$

$$= \frac{\text{Net Sales} - \text{Cost of Goods Sold}}{\text{Net Sales}} \times 100$$

Cost of goods sold includes all the expenses relating to main trading activity of the business. Net sales are equal to total gross sales less returns inwards.

For Trading Concern

Cost of goods sold = Opening stock + Purchases + Direct Expenses – Closing Stock

For Manufacturing Concern

Cost of goods sold = Opening stock of finished goods + Cost of Manufacturing + Direct Expenses – Closing Stock of finished goods

For Software Services

Cost of goods sold = Costs relating to software development

Gross profit ratio represents the excess of what the concern is able to charge as sale price over the cost of goods sold. This surplus is available to meet the operating expenses and non-operating expenses. The amount remaining after meeting those expenses represents the net profit, which belongs to share-holders. It is a used as a tool to evaluate the operational performance of the business . The ratio can be used to test the business condition by comparing it with past years' ratio and with the ratio of other companies in the industry. A consistent improvement in gross profit ratio over the past years is the indication of continuous improvement. When the ratio is compared with that of others in the industry, the analyst must see whether they use the same accounting systems and practices.

Exhibit 6.1 describes the usefulness of the gross profit ratio.

Exhibit 6.1: Usefulness of Gross Profit Ratio

Gross Profit ratio is used by managers for analytical purposes. It indicates the extent to which selling prices of goods per unit may decline without resulting in losses on operations of a firm. It reflects the efficiency with which a firm manufactures its products. A high gross profit ratio indicates more income from the main business operations, which is desirable. A low gross profit ratio normally indicates high cost of goods due to unfavourable purchasing policies, lesser sales, lower selling prices, fierce competition, over-investment in plant and machinery etc.

Managers also use gross profit margins for cost control purposes. In the case of trading industries, gross profit margins are used to determine inventory in interim statements, to estimate inventory in case of insured losses.

Auditors and Tax authorities use gross profit ratio to judge the accuracy of the accounting records.

Source: ICFAI Research Centre

Following Tables 6.1 and 6.2 are the extracts taken from Annual Report of Infosys for the year ended March 31, 2021 and March 31, 2020:

Table 6.1: Extract from the Statement of Profit and Loss of Infosys Limited

(₹ in crore)

Particulars	Year ended March 31	
	2021	2020
Revenue from software services and products	85,669	78,809
Revenue from Products and Platforms	243	238
Total Revenue	85,912	79,047
Cost of Sales	55,541	52,816

Gross profit	30,371	26,231
Operating Expenses		
Selling and marketing expenses	3,676	3,814
General and administration expenses	4,559	4,526
Total operating expenses	8,235	8,340
Operating profit	22,136	17,891

Source: Infosys Annual Report 2020-21

Gross profit ratio of Infosys Technologies Ltd for the years 2020-21 and 2019-20 is calculated in the following table. Infosys Limited's main business activity is software development. Thus, for calculating the gross profit ratio only software related expenses and incomes should be taken into account.

Table 6.2: Gross Profit Ratio of Infosys Limited

(₹ in crore)

Particulars	Year ended March 31	
	2021	2020
Total Revenue from operations (A)	85,912	79,047
Cost of Sales (B)	55,541	52,816
Gross profit (A-B)=C	30,371	26,231
Gross profit Ratio C/A*100	35.35	33.18

Source: Infosys Annual Report 2020-21

Selling and distribution and general administration expenses are indirect expenses and should not be taken into account for determining the gross profit.

The gross profit during the year was ₹ 30,371 crore representing 35.35% of revenue compared to ₹ 26,231 crore representing 33.18% of revenue in the previous year.

Operating Profit Ratio

The operating profit ratio establishes the relationship between operating profit and net sales or revenue earned. In other words, the operating profit ratio is calculated by dividing operating profit by sales. Operating profit is calculated as follows:

Operating Profit = Net Sales – Operating Cost

Or

= Net Sales – (Cost of Goods Sold + Administrative and Office Expenses + Selling and Distribution Expenses)

Operating Profit Ratio can also be calculated as:

Operating Profit = Net Profit + Non-operating Expenses – Non-operating Income

Thus,

$$\text{Operating Profit Ratio} = \frac{\text{Operating Profit}}{\text{Sale}} \text{ x } 100$$

The ratio can also be calculated as:

$$\text{Operating Profit Ratio} = 100 - \text{Operating Ratio}$$

Operating activities of a business refer to the primary revenue producing activities of a business. Operating profit ratio allows users to assess the impact of operating activities on the profitability of the firm. This ratio indicates the operating efficiency of the business. A higher ratio is desirable as it indicates the more income from operating activities. This ratio helps to analyze a firm's operational efficiency, a trend analysis is usually done between two different accounting periods to assess improvement or deterioration of operational capability.

Operating Profit Margin differs across industries and is often used as a metric for benchmarking one company against similar companies within the same industry. It can reveal the top performers within an industry and indicate the need for further research regarding why a particular company is outperforming or falling behind its peers.

Following Table 6.3 shows operating profit ratio calculated from the figures taken from annual report of Infosys Limited for the year ended March 31, 2021 and 2020:

Table 6.3: Operating profit Ratio of Infosys Limited for Year ended March 31, 2021 and March 31, 2020

(₹ In crores)

Particulars	Year ended March 31	
	2021	2020
Revenue from software services and products	85,669	78,809
Revenue from Products and Platforms	243	238
Total Revenue (A)	85,912	79,047
Cost of Sales	55,541	52,816
Gross profit	30,371	26,231
Operating Expenses		
Selling and marketing expenses	3,676	3,814
General and administration expenses	4,559	4,526
Total operating expenses	8,235	8,340
Operating Profit (B)	22,136	17,891
Operating Profit Ratio (B/A*100)	25.76	22.63

Source: Infosys Annual Report 2020-21

The operating profit of Infosys is ₹ 22,136 crore, representing 25.76% of total revenue compared to ₹ 17,891crore representing 22.63% of total revenue during the previous year.

Net Profit Ratio

The net profit ratio establishes the ratio between net profit (after taxes) and sales. It indicates the efficiency of the management in manufacturing, selling, administrative and other activities of the firm. It gives the measure of net income generated by each rupee of sales.

This ratio gives an overall measure of the firm's profitability and is calculated as follows:

$$\text{Net Profit Ratio} = \frac{\text{Net Profit After Tax}}{\text{Net Sales}} \text{ x } 100$$

The two basic elements of the ratio are net profits and sales. The net profit will be obtained after deducting income tax. The ratio is very useful because if the profit is not sufficient, the firm shall not be able to achieve a satisfactory return on its investment.

This ratio also indicates the firm's capacity to face adverse economic conditions such as price competition, low demand, etc. Obviously, the higher the ratio, the better is the profitability. While it is desirable to have a high ratio, economic conditions, competitive forces within an industry, capital structure of particular firm and high fixed costs cause the net profit ratio to vary from industry-to-industry.

But while interpreting the ratio, it should be kept in mind that the performance of profits must also be seen in relation to investment or capital of the firm and not only in relation to sales.

The net profit ratio is really a short-term measurement, because it does not reveal a company's actions to maintain profitability over the long term, as may be indicated by the level of capital investment or expenditures for advertising, training, or research and development. Also, a company may delay a variety of discretionary expenses, such as maintenance, to make its net profit ratio look better than it normally is. Consequently, you should evaluate the net profit ratio alongside a variety of other metrics to gain a full picture of a company's ability to continue as a going concern.

Another issue with the net profit margin is that a company may intentionally keep it low in accordance with a low-pricing strategy that aims to grab market share in exchange for low profitability. In such cases, it may be a mistake to assume that a company is doing poorly, when in fact it may own the bulk of the market share precisely because of its low margins. Conversely, the reverse strategy may result in a very high net profit ratio, but at the cost of only capturing a small market niche.

Another strategy that can artificially drive down the ratio is when a company's owners want to minimize income taxes, and so accelerate the recognition of

taxable expenses into the current reporting period. This approach is most commonly found in a privately held business, where there is no need to impress outside investors with the results of operations.

Several refinements to net profit ratio exist. The numerator is refined by deducting the 'other income' and 'other expenses', since it is argued that these items cause distortion in interpreting the ratio since these items do not relate to net sales which is considered as the denominator.

Following figures shown in Table 6.4 are extracted from the Profit and Loss account of Infosys Ltd for the year ended March 31, 2021 and March 31, 2020.

Table 6.4: Net Profit Ratio of Infosys Limited

(₹ in crore)

Particulars	Year ended March 31	
	2021	2020
Profit Before Tax	24,477	20,477
Tax Expenses	6,429	4,934
Profit after Tax (A)	18,048	15,543
Total Revenue (B)	85,912	79,047
Net Profit Ratio (A/B*100)	21.00	19.66

Source: Infosys Annual Report 2020-21

The net profit ratio is slightly increased from 19.66% to 21.00% in 2020-21 in comparison to 2019-20 . The company's overall performance is quite good.

Earnings Per Share (EPS)

The EPS is a good measure of the profitability of a business. The EPS when compared with the EPS of similar companies, gives a view of the comparative earnings or earning power of a firm. EPS when calculated for a number of years indicates whether earning power of the company has increased over the years or not. It also helps in calculating market price of the share.

Earnings per share are a small variation of return on equity capital. As per AS-20 earnings per share should be shown as basic earnings per share and diluted earnings per share. Dilution is a reduction in earnings per share or an increase in loss per share resulting from the assumption that convertible instruments are converted, that options or warrants are exercised, or that ordinary shares are issued upon the satisfaction of specified conditions.

Basic Earnings per Share is calculated by dividing the net profit after the taxes and preference dividend by the Weighted Average number of equity shares outstanding. The numerator represents the total amount of earnings available to equity share-holders after all deductions. Thus,

$$\text{Basic E.P.S} = \frac{\text{Net Profit After Tax} - \text{Preference Dividend}}{\text{Weighted Average Number of Shares}}$$

Diluted Earnings per Share is calculated by dividing the net profit after taxes and preference dividend by the weighted average number of shares. This is used when there are potential equity shares in the capital structure of the organization. A potential equity share is a financial instrument or other contract that entitles, or may entitle, its holder to equity shares. For the purpose of calculating diluted earnings per share, an entity shall adjust profit or loss attributable to ordinary equity holders of the parent entity, and the weighted average number of shares outstanding, for the effects of all dilutive potential ordinary shares. The objective of diluted earnings per share is consistent with that of basic earnings per share—to provide a measure of the interest of each ordinary share in the performance of an entity—while giving effect to all dilutive potential ordinary shares outstanding during the period.

In practice, most companies also compute EPS based on the normal or maintainable profits. This is referred to as headline profit. The numerator is the profit derived from the ongoing activities of the business prior to charging such exceptional or one-off expenses and after all other deductions. Table 6.5 given below shows the profit particulars for 2020-21 of Infosys Limited.

Table 6.5: Extract of Profit and Loss account of Infosys Limited

(₹ in crore)

Particulars	Year ended March 31	
	2021	2020
Profit before tax	24,477	20,477
Tax expense	6,429	4,934
Profit for the period	18,048	15,543
Other Comprehensive Income		
Items that will not be reclassified subsequently to Profit or Loss		
Re-measurement of the Net Defined Benefit Liability/Asset, Net	148	(184)
Equity Instruments through Other Comprehensive Income, Net	120	(31)
Items that will be reclassified subsequently to Profit or Loss		
Fair value changes in derivatives designated as cash flow hedge, Net	25	(36)
Fair value changes on investments, Net	(102)	17
Total other comprehensive income/loss, net of tax	191	(234)
Total comprehensive income for the year	18,239	15,309
Earnings Per Equity Share		
Equity Shares of Par Value ₹ 5 each		
Basic (₹)	42.37	36.34
Diluted (₹)	42.33	36.32

Source: Infosys Annual Report 2020-21

Based on the above data, the EPS of Infosys Limited., for the year 2020-21 and 2019-20 can be calculated as follows:

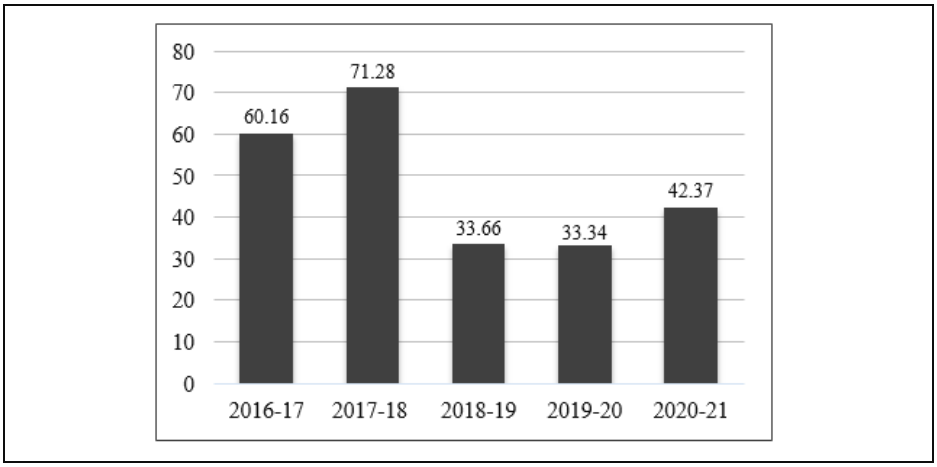
Table 6.6: Earnings Per Share of Infosys Limited

Particulars	Year ended March 31	
	2020-21	2019-20
Profit for the Year (A)	18,048,00,00,000	15,543,00,00,000
Weighted Average Number of Shares used in computing Earnings Per Share (Basic) - (B)	425,94,38,950	427,70,30,249
Weighted Average Number of Shares used in computing Earnings Per Share (Diluted) (C)	426,30,92,514	427,98,08,826
Basic EPS (A/B)	42.37	36.34
Diluted EPS (A/C)	42.33	36.32

Source: Infosys Annual Report 2020-21

The number of shares used in computing basic earnings per share is the weighted average number of shares outstanding during the period. The number of shares used in computing diluted earnings per share comprises the weighted average shares considered for deriving basic earnings per share, and also the weighted average number of equity shares that could have been issued on the conversion of all dilutive potential equity shares. The diluted potential equity shares are adjusted for the proceeds receivable, had the shares been actually issued at fair value i.e., the average market value of the outstanding shares. Figure 6.3 gives the basic earning per share data from 2014-2021 of Infosys Limited.

Figure 6.3: Basic Earning Per Share of Infosys Limited from 2016-17 to 2020-21



Source: Infosys Annual Report 2020-21

EPS is the most widely available and commonly used performance statistical ratio in all publicly traded companies. It is used by investors to measure the operating performance and for valuation purpose either individually or together with market prices. It is now a standard practice to give EPS information in the published statements, and hence is readily available for analysts. Analysts are required to exercise caution when comparing the EPS of one company with another since it may be misleading when two companies which are identical in all respects except the number of shares issued are compared. Similarly trend analysis is undertaken using this ratio; the analysis may be misleading since any bonus issue would affect this ratio.

Fixed Interest Coverage Ratio

This ratio measures the cover or safeguard that exists for the lenders of debt. This ratio reveals the debt servicing capacity of the firm. Lenders check this ratio before deciding on lending the money to the firm. Hence, this is an important ratio from the lenders point of view. It measures the adequacy of profits to cover the interest i.e., whether the business earns sufficient profits so as to pay the interest charges periodically. The formula is:

$$\text{Fixed Interest Coverage Ratio} = \frac{\text{Net Profits before Interest and Taxes}}{\text{Interest}}$$

The rule is: the higher the ratio, the better for lenders and the more secured their periodical interest income. If the firm has good coverage of interest obligation, it can be said that the firm will be able to refinance its principal as and when it becomes due. A relatively high, stable coverage ratio indicates a good record. The Interest coverage ratio is also called “times interest earned.” Lenders, investors, and creditors often use this formula to determine a company's riskiness relative to its current debt or for future borrowing. This ratio is often used by managers to decide upon the amount of debt obligations to be raised. This practice of issue of debt obligations at an interest rate less than the return from use of these funds is called ‘trading on equity’ or ‘leverage’. This ratio identifies the extent to which the company will be able to safely ‘trade on equity’ since the higher the interest payable, the higher the risk that the company will fail to meet its interest obligations. Table 6.7 given below presents an extract of Profit and Loss account of Tata Steel which is used to compute interest coverage ratio as shown in Table 6.8.

Table 6.7: Profit and Loss Account of Tata Steel limited for 2020-21

(₹ in crore)

		Note	Page	Year Ended March 31, 2021	Year Ended March 31, 2020
I	Revenue from operations	26	305	64,869.00	60,435.97
II	Other income	27	306	637.89	404.12
III	**Total income**			**65,506.89**	**60,840.09**

IV	**Expenses:**				
	(a) Cost of materials consumed			13,868.60	17,407.03
	(b) Purchases of stock-in-trade			1,146.05	1,563.10
	(c) Changes in inventories of finished and semi-finished goods, stock-in-trade and work-in-progress	28	307	1,464.12	(564.40)
	(d) Employee benefits expense	29	307	5,198.82	5,036.62
	(e) Finance costs	30	308	3,393.84	3,031.01
	(f) Depreciation and amortisation expense	31	308	3,987.32	3,920.12
	(g) Other expenses	32	308	22,747.30	23,803.18
				51,806.05	**54,196.66**
	Less: Expenditure (other than interest) transferred to capital and other accounts			1,321.24	1,671.13
	Total expenses			**50,484.81**	**52,525.53**
V	**Profit before exceptional items and tax (III-IV)**			**15,022.08**	**8,314.56**
VI	**Exceptional items:**	33	310		
	(a) Profit/(loss) on sale of non-current investments			1,084.85	-
	(b) Provision for impairment of investments/doubtful advances			149.74	(1,149.80)
	(c) Provision for demands and claims			-	(196.41)
	(d) Employee separation compensation			(443.55)	(107.37)
	(e) Gain/(loss) on non-current investments classified as fair value through profit and loss (net)			1,982.01	(250.00)
	Total exceptional items			**2,773.05**	**(1,703.58)**
VII	**Profit before tax (V+VI)**			**17,795.13**	**6,610.98**
VIII	**Tax expense:**				
	(a) Current tax			3,949.05	1,787.95
	(b) Deferred tax			239.46	(1,920.77)
	Total tax expense			**4,188.51**	**(132.82)**
IX	**Profit for the year (VII-VIII)**			**13,606.62**	**6,743.80**
X	**Other comprehensive income/(loss)**				
	A (i) Items that will not be reclassified subsequently to profit and loss				
	(a) Remeasurement gain/(loss) on post-employment defined benefit plans			81.97	(461.27)
	(b) Fair value changes of investments in equity shares			333.55	(244.30)
	(ii) Income tax on items that will not be reclassified subsequently to profit and less			(27.40)	116.65
	B (i) Items that will be reclassified subsequently to profit and loss				
	(a) Fair value changes of cash flow hedges			27.56	(79.76)

	(ii) Income tax on items that will be reclassified subsequently to profit and loss			(6.94)	19.81
	Total other comprehensive income/(loss) for the year			**408.74**	**(648.87)**
XI	**Total comprehensive income/(loss) for the year (IX+X)**			**14,015.36**	**6,094.93**
XII	**Earning per share**	34	310		
	Basic (₹)			117.04	57.11
	Diluted (₹)			117.03	57.11
XIII	**Notes forming part of the financial statements**	1-46			

Source: https://www.tatasteel.com/media/13915/tsl_ir21_final.pdf

Table 6.8: Calculation of Interest Coverage Ratio of Tata Steel Ltd., for the years 2020-21 ad 2019-20

(₹ in crore)

Particulars	Year ended March 31	
	2021	2020
Total Expenses (A)	50,484.81	52,525.53
Total Income (B)	65,506.89	60,840.09
Net Profit Before Tax (C)	17,795.13	6,610.98
Interest (D)	3,393.84	3,031.01
Net Profit Before Interest and Tax (C+D) = E	21,188.97	9,641.99
Interest Coverage ratio D/E*100	16.01	31.43

Source: Tata Steel Annual Report 2020-21

From the above Table 6.8 we can understand that the interest coverage ratio decreased in 2020-21 in comparison to 2019-20. The net finance charges were higher over the previous financial year mainly due to interest on new non-convertible debentures issued during the year, interest on fresh term loans taken during the year, interest on working capital loans partly offset by the increase in interest income from current investments, advances, and deposits.

Debt Service Coverage Ratio (DSCR)

This ratio is an extension of the above interest coverage ratio. It indicates the ability of the firm to repay the interest and installments on time. This ratio is important from lender's point of view. The formula is –

$$\text{Debt service coverage ratio} = \frac{\text{Netprofit before interest \& taxes}}{\text{Interest} + \text{Principal installment}/(1-t)}$$

The rule is the higher the ratio, better it is. A high debt service coverage ratio implies better security to the lenders. This ratio is similar to interest coverage ratio used by managers to decide upon the amount of debt obligations to be raised. In fact, both interest coverage ratio and debt service coverage ratio are used in conjunction by managers before they decide upon the quantum of debt to be issued. It indicates that the net profit before interest and taxes are adequate to cover the interest and principal repayment.

Illustration 6.1

Calculate the debt service coverage ratio, if the company earns profit after interest and taxes ₹ 2,00,000; 5% debentures payable in 5 equal installments are ₹ 2,00,000. The tax rate is 50%.

Solution

$$\text{Debt service coverage ratio} = \frac{\text{Netprofit before interest \& taxes}}{\text{Interest} + \text{Principal installment}/(1-t)}$$

$$= \frac{2.00{,}000}{10{,}000 + 40{,}000/0.5} = 2.22 \text{ times}$$

Dividend Coverage Ratio

This ratio measures the adequacy of profits to cover the dividends. This ratio safeguards the preference shareholders dividend incomes. The formula is,

$$\text{Dividend Coverage Ratio (for preference shareholders)} = \frac{\text{Profits after tax}}{\text{Preference dividends}}$$

$$\text{Dividend Coverage Ratio (for equity shareholders)} = \frac{\text{Profits after tax} - \text{Preference dividends}}{\text{Equity dividends}}$$

This ratio indicates the profits available to equity shareholders. The dividend coverage ratio reflects the dividend policy of company. A high cover indicates that the company operates a conservative dividend policy and does not distribute large portion to equity interest.

From the following information calculate the dividend coverage for preference and equity dividend.

Particulars	₹
Capital: 7% preference shares of ₹ 100 each	3,00,000
Equity shares of ₹ 10 each	8,00,000
Profit after tax	2,71,000
Equity dividend rate	20%

$$\text{Preference Dividend Coverage Ratio} = \frac{\text{Profit after Tax}}{\text{Preference Dividends}}$$

$$= \frac{2{,}71{,}000}{21{,}000} = 12.9 \text{ times}$$

$$\text{Equity Dividend Coverage Ratio} = \frac{\text{Profit after Tax} - \text{Preference Dividends}}{\text{Equity Dividends}}$$

$$= \frac{2{,}71{,}000 - 21{,}000}{1{,}60{,}000} = 1.56 \text{ times}$$

Activity 6.1

a. XY Ltd., has Earnings Before Depreciation Interest and Tax (EBDIT) of ₹ 3,318 crore; depreciation of ₹ 855 crore and interest expense of ₹ 728 crore. What would be the interest coverage ratio? XY Ltd., is planning to borrow ₹ 10 crore for a project. Can the company do so? What impact will this borrowing have on the interest coverage ratio?

_____

_____

_____

b. A company's gross profit ratio is 40%; its operating profit ratio is 35% and its net profit ratio is 11%. What are possible reasons for the variation between these ratios? If the company wants to improve its profitability ratio, what measures should it adopt?

_____

_____

_____

6.4.2 Balance Sheet Ratios

Balance Sheet is a statement of financial position that reports a company's resources and claims against those resources at a point in time. Share-holders of the company are interested in knowing how the capital provided by them has been invested in the assets of the company, the debts and obligations of the company etc. Investors who intend to invest in the equity or debentures of the company are concerned with the prospective earning power and working capital position. Creditors are primarily concerned with liquidity and ability to meet short-term obligations. Balance sheet ratios reveal the financial position of the enterprise from the long-term and short-term solvency point of view and fulfil the requirements of various users. Balance sheet ratios are used to study and analyze:

- Current Financial Position
- Long-term Financial Position of the Company

Current Financial Position

The shareholders, managers and creditors scrutinize the balance sheet of the company to gauge the firms' financial condition as revealed by its net working capital. Adequate working capital is required to enable the company to carry out the business smoothly and comfortably. Inadequate working capital may lead to delay in settling obligations as and when they arise, prevent the firm from taking advantage of opportunities and may in extreme cases lead to insolvency and winding up of the firm. A company is considered to be financially sound, if

it can carry on its business smoothly and meet all its obligations. The study and interpretation of current financial position involves the study of individual items of the current assets, current liabilities and net working capital and their relationships in the form of ratios. These ratios are often referred to as liquidity ratios or short-term ratios.

Importance of Short-term Liquidity/Solvency

Generally short-term is the period up to one year. A company's short Liquidity refers to the ability to convert assets into cash or to obtain cash. The importance of short-term liquidity can be best understood by taking repercussions stemming from a company's inability to meet short-term liabilities. Lack of liquidity in the company indicates the company's inability to take the economies of scale like discounts on bulk purchases etc. It also limits the actions of management i.e., managers may restrict themselves for taking the opportunities. In extreme cases, companies may sell their investments and assets to meet the short-term obligations.

Lack of short-term liquidity leads to lower profits and fewer opportunities. It foretells the investor about the loss of capital investment. In case of non-corporate entities this problem leads to the loss of their personal assets. Creditors may suffer from delayed payments of interest and principal amounts or they may lose their amounts due to company. This problem also affects the relationship with customers. Lack of liquidity may cause the non-execution of contracts with customers and non-payment of damages to customers.

The above situations highlight why short-term liquidity is of great importance. In short, if a firm fails to meet the short-term obligations, it means the existence of the firm is in danger. Thus, all other analyses are secondary. An analyst, though he may assume the firm is a going concern, he must keep in mind the liquidity and short-term measures while analyzing a company. The following are the important liquidity ratios, which indicate the short-term solvency of a firm.

Current Ratio

This is the most important liquidity ratio. It indicates the firm's ability to pay its current liabilities out of its current assets. It shows the firm's commitment to meet its short-term liabilities (current liabilities). This ratio indicates the extent of 'margin of safety' or 'cushion' available to the current creditors. It is calculated by dividing the current assets by current liabilities. The formula is:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Current assets are those assets which can be converted into cash within an accounting year. It includes cash, bank balance, short-term investments, bills receivable, sundry debtors, closing stock, prepaid expenses, short-term loans and advances. Current liabilities are the liabilities which are payable within an

accounting year. It includes bank overdraft, bills payable, sundry creditors, outstanding expenses, provision for taxation, proposed dividends, accrued interest, advance payments, long-term debt maturing within a year.

Traditionally, a current ratio of 2:1 i.e., two rupees of current assets for every rupee of current liabilities has been considered adequate. This standard was based on the assumption that in case of bankruptcy or/and falling prices, the book value of current assets can shrink by one half and yet the current liabilities (dues and obligations) can be met in time. If the current assets are less than twice the current liabilities, then payment of current liability affects the day-to-day operations of the concern. In theory, the larger the current ratio, the greater is the protection available to short-term creditors. However, on the other hand, a higher ratio is an indicator of idle fund, inefficient use of fund and excessive dependence on long-term fund, which is costlier than the current liabilities.

Thus, this 2:1 measure cannot be accepted as applicable to all companies irrespective of the type of their business since other factors that affect the working capital (current asset minus current liabilities) are also to be considered. In general, the shorter the operating cycle, the lower the current ratio, and the longer the operating cycle the higher the current ratio. Current ratio should be used to compare companies to their industry peers that have similar business models. Comparing the current ratios of companies across different industries may not lead to productive insights.

Also, in practice, a company with a high current ratio may not be necessarily in a position to meet its obligations, due to improper distribution of current assets. Hence, this ratio should be used in conjunction with other ratios to give a better picture of the current financial position.

Using the balance sheet data available in Table 6.9, we calculate the Current Ratio as follows:

Table 6.9: Current Ratio of Tata Steel Ltd., as on March 31, 2021 and March 31, 2020

(₹ in crore)

Particulars	As on 31.03.2021	As on 31.03.2020
Inventories	8,603.79	10,716.66
Investments	6,404.46	3,235.16
Trade Receivables	3,863.31	1,016.73
Cash and Cash Equivalents	1,501.71	993.64
Other balances with banks	170.00	233.23
Loans	1555.95	1607.32
Derivative assets	66.93	209.96
Other financial assets	351.54	230.41
Other current assets	854.99	1715.92
Total Current Assets (A)	23,372.68	19,959.03
Current Liabilities and Provisions		

Particulars	As on 31.03.2021	As on 31.03.2020
Borrowings	-	7857.27
Trade Payables	10,638.59	10,600.96
Derivative liabilities	69.39	81.69
Other financial liabilities	5274.11	5401.55
Provisions	1074.43	663.86
Retirement benefit obligations	116.10	106.61
Deferred income	34.44	6.15
Current tax liabilities	4093.26	277.26
Other liabilities	8013.00	5875.95
Total Current Liabilities (B)	**29,313.32**	**30,871.30**
Current Ratio A/B	0.797	0.646

Source: Tata Steel Annual Report 2020-21

The ratio of 0.797 for the year 2020-21 seems to be better than that of 2019-20 of 0.646 even though it is less than the desired ratio of 2:1

Liquid or Acid-Test or Quick Ratio

This ratio is a supplementary ratio to give double assurance as to the soundness of the current financial position of a business. This ratio is calculated by dividing the quick asset by current liabilities. It represents the number of times current liabilities are covered by quick assets or the number of rupees of liquid assets relative to total current liabilities. It indicates the firm's ability to pay its current liabilities out of its most liquid assets. Liquid assets are the assets which can be converted into cash immediately without any loss and includes cash, bank balance, bills receivables, sundry debtors, short-term investments. In other words,

Quick Assets = Current Asset – Inventory and Prepaid Expenses

The reason for exclusion of inventories and prepaid expenses in the above computation is that they normally take time to realize in cash. Prepaid expenses are excluded because they cannot be used to pay other liabilities. Inventory may be slow moving or possibly obsolete or may be pledged to creditors, hence the inclusion of these in the liquid assets seem meaningless. Some of the accountants prefer the term Liquid Liabilities instead of current liabilities. Liquid liabilities are all current liabilities excluding bank overdraft. The formula to calculate this ratio is:

$$\text{Liquid Ratio} = \frac{\text{Liquid Assets}}{\text{Current or Liquid Liabilities}}$$

A quick ratio of 1:1 is considered fairly good and ideal. It is considered wise to maintain the liquid asset equal to liquid liabilities at all times. However, a comparison of the firm's past quick ratio, a comparison with major competitors and industry average would be more meaningful.

Considering the above data of Tata Steel Ltd., the Quick Ratio of the company can be calculated as follows:

Table 6.10: Calculation of Quick Ratio of Tata Steel Limited

(₹ in crore)

Particulars	As on 31.03.2021	As on 31.03.2020
Investments	6,404.46	3,235.16
Trade Receivables	3,863.31	1,016.73
Cash and Cash Equivalents	1,501.71	993.64
Other balances with banks	170.00	233.23
Loans	1555.95	1607.32
Derivative assets	66.93	209.96
other financial assets	351.54	230.41
Other current assets	854.99	1715.92
Total Quick Assets (A)	14,768.89	9243.37
Current Liabilities (B)	**29,313.32**	**30,871.30**
Quick Ratio (A/B)	**0.50**	**0.30**

Source: Tata Steel Annual Report 2020-21

Company's quick ratio for the year 2020-21 is 0.50. But the ideal quick ratio is 1:1. Thus, the company's liquidity position is not sufficient to meet its short-term obligations.

When analysts view the liquidity of the firm from an extremely conservative point of view, they use absolute liquid ratio.

In this ratio, absolutely liquid assets are considered and includes only cash in hand, cash at bank and short-term marketable securities. Bills receivable and inventories are excluded because there is a doubt of its reliability in cash at a time. This ratio is calculated by following formula:

$$= \frac{\text{Cash in hand + Cash at Bank + Short-term Marketable Securities}}{\text{Current Liabilities}}$$

By taking the above statements of Tata Steel Ltd., Calculate Absolute Liquidity Ratio.

Table 6.11: Absolute Liquidity Ratio of Tata Steel Ltd., for the years 2020-21 and 2019-20 are given below:

Table 6.11: Absolute Liquidity Ratio of Tata Steel Ltd., for the years 2020-21 and 2019-20

(₹ in crore)

Particulars	As on 31.03.2021	As on 31.03.2020
Cash and cash equivalents	1,501.71	993.64
Other balances with banks	170.00	233.23
Cash and Bank balances (A)	1,671.71	1226.87
Current Liabilities and Provisions (B)	**29,313.32**	**30,871.30**
Absolute Liquidity Ratio A/B	0.057	0.039

Source: Tata Steel Annual Report 2020-21

The standard norm is 1: 2 (0.5) which means that ₹ 1 of absolute liquid assets are sufficient to pay ₹ 2 worth of current liabilities. The company's absolute liquid ratios is only 0.057. It indicates the cash deficiency in the company to meet the short-term obligations.

Inventory Turnover or Stock Turnover Ratios

Every firm has to maintain a certain level of inventory of finished goods so as to meet the requirements of the business. The level of inventory should neither be too high nor too low. Keeping more inventory implies:

- Unnecessary blockage of capital, which can otherwise be profitably, used somewhere else.
- Over-stocking requires more space, thus more rent will be paid.
- Chances of obsolescence of stocks are high since consumers prefer the goods of latest design.
- Slow disposal of stocks will mean slow recovery of cash, which adversely affects liquidity.

It is therefore advisable to dispose- of inventory as early as possible. On the other hand, too low inventory may mean loss of business opportunities. The inventory turnover ratio refers to the number of times the stock of finished goods is turned over as sales, or sold or replaced. The inventory turnover ratio also known as stock velocity ratio indicates whether inventory has been efficiently used or not. The inventory turnover ratio evaluates the efficiency with which a firm is able to manage its inventory.

$$\text{Inventory Turnover Ratio} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$$

Average inventory is calculated by adding the stock in the beginning and at the end of the period dividing it by two.

Generally, the cost of goods sold may not be known from the published financial statements. In such a case, the inventory turnover ratio may be calculated by dividing net sales by average inventory at cost. If average inventory at cost is not known then inventory at selling price may be taken as the denominator and where the opening inventory is not known, the closing inventory figure may be taken as the average inventory.

$$\text{Inventory Turnover Ratio} = \frac{\text{Net sales}}{\text{Average inventory at cost}}$$

$$\text{Inventory Turnover Ratio} = \frac{\text{Net sales}}{\text{Average inventory at selling price}}$$

$$\text{Inventory Turnover Ratio} = \frac{\text{Net sales}}{\text{Inventory}}$$

Exhibit 6.2: Significance of Inventory Turnover Ratio

Inventory turnover ratio provides measure of both the quality and the liquidity of inventory in the current assets component. A high inventory turnover ratio indicates efficient management of inventory because more frequently the stocks are sold; lesser amount of money is required to finance the inventory. A low inventory turnover ratio indicates an inefficient management of inventory. A low inventory turnover implies over-investment in inventories, dull business, poor quality of goods, stock accumulations, accumulation of obsolete and slow moving goods and low profits as compared to total investments.

But too high a turnover of inventory may not necessarily always imply a favourable situation. A high inventory turnover may be the result of very low level of inventory which results in shortage of goods in relation to demand and a position of stock out or the turnover may be high due to a conservative method of valuing inventories at lower values or the policy of the firm to buy frequently in small lots. There are no such rules of thumb or standard inventory turnover ratio for interpreting the inventory turnover ratio. The norms may be different for different firms depending upon the nature of industry and business conditions.

From the above inventory turnover ratio the average number of days of inventory remaining on hand is computed by dividing the number of days in the year by the turnover of inventories.

Following are the extracts from a company's financial statements:

a. Sale of Products and Services

(₹ in crore)

Particulars	Year ended March 31	
	20x2	20x1
Sale of products	44,884	41,014
Sale of power and water	898	875
Income from town, medical and other services	87	76
Other operating income	440	352
Sales and other operating income	46,309	42,317
Less: Excise Duty	4,598	4,118
Net Sales	41,711	38,199

b. Stock-in-Trade

(₹ in crore)

Particulars	As on 31.03.20x2	As on 31.03.20x1
Stores & Spares	1718	1473
Stock-in-trade	4290	3785
Total inventories	6008	5258

Inventory Turnover Ratio of the company for the years 20x1-20x2 and 20xx-20x1 are to be computed below:

Inventory Turnover Ratio of the company

(₹ in crore)

Particulars	As on 31.03.20x2	As on 31.03.20x1
Net sales (A)	41,711	38,199
Inventory (B)	6,008	5,258
Inventory turnover ratio A/B	6.94 times	7.26 times

The company's inventory turnover ratio is slightly decreased this year.

A business concern may sell goods on cash as well as on credit. Credit is one of the important elements of sales promotion. Following a liberal credit policy can increase the volume of sales. But the effect of a liberal credit policy may result in tying up substantial funds of a firm in the form of trade debtors. Trade debtors are expected to be converted into cash within a short period and are thus included in current assets. The liquidity position of a concern to pay its short-term obligations in time depends upon the quality of its trade debtors.

a. Debtors turnover ratio indicates the velocity of debt collection of firm. In other words, it indicates the number of times average debtors (Receivables) are turned over during a year.

$$\text{Debtors (Receivables) Turnover ratio} = \frac{\text{Net Credit Annual Sales}}{\text{Average Trade Debtors}}$$

Trade Debtors = Sundry Debtors + Bills Receivables and Accounts Receivables

$$\text{Average Trade Debtors} = \frac{\text{Opening Trade Debtors} + \text{Closing Trade Debtors}}{2}$$

b. When the information about opening and closing balances of trade debtors and credit sales is not available, then the debtors' turnover ratio will be calculated as,

$$\text{Debtors' Turnover Ratio} = \frac{\text{Total Sales}}{\text{Debtors}}$$

Generally, the higher the value of debtors' turnover the more efficient is the management of debtors'/sales or more liquid are the debtors. Similarly, low debtors' turnover implies inefficient management of debtors/sales and less liquid debtors. But a very high debtors' turnover ratio may imply a firm's inability due to lack of resources to sell on credit thereby losing sales and profits. There is no rule of thumb for interpretation of the ratio. This ratio should be compared with ratios of other firms doing similar business and a trend may also be found to make a better interpretation of the ratio.

Following are the extracts taken from the annual report of a company:

a. Sale of Products and Services

(₹ in crore)

Particulars	Year ended March 31	
	20x2	20x1
Sale of products	44,884	41,014
Sale of power and water	898	875
Income from town, medical and other services	87	76
Other operating income	440	352
Sales and other operating income	46,309	42,317
Less: Excise Duty	4,598	4,118
Net Sales	41,711	38,199

b. Sundry Debtors

(₹ in crore)

Particulars	As on 31.03.20x2	As on 31.03.20x1
Gross Debtors	787	811
Less: Provision for doubtful debts	16	14
Sundry Debtors	771	797

Debtors Turnover Ratio of the company as on March 31, 20x2 and March 31, 20x1 is given below:

Particulars	As on 31.03.20x2	As on 31.03.20x1
Net sales (A)	41,711	38,199
Debtors (B)	771	797
Debtors Turnover Ratio (A/B)	54.1	47.93

During the year 20x1-20x2, the company's debtors' turnover ratio increased. It is indicating that the efficiency in the management of debtors has increased compared to the last year.

Average Collection Period

This ratio represents the average number of days for which a firm has to wait before its receivables are converted into cash.

$$\text{Average Collection Period} = \frac{\text{Average Trade Debtors (Debtors + Bills Receivable)}}{\text{Sales per day}}$$

$$\text{Sales per day} = \frac{\text{Net Sales}}{\text{No. of working days}}$$

$$\text{Average Collection Period} = \frac{\text{Average Trade Debtors x No. of Working Days}}{\text{Net Sales}}$$

Or

$$\frac{\text{Debtors Turnover Ratio}}{\text{No. of Working Days}}$$

If the period is in months:

$$\text{Average Trade Debtors} = \frac{\text{Average Trade Debtors x No. of Months}}{\text{Net Sales}}$$

The average collection period represents the average number of days for which a firm has to wait before its receivables are converted into cash. It measures the quality of debtors. Generally, the shorter the average collection period the better is the quality of debtors as a short collection period implies quick payment by debtors. Similarly, a higher collection period implies as inefficient collection performance, which in turn adversely affects the liquidity or short-term paying capacity of a firm out of its current liabilities. Moreover, the longer the average collection period, the larger is the chance of bad debts. But a very short collection period may imply firm's conservative policy to sell on credit or its inability to allow credit to its customers due to lack of resources and thereby losing sales and profits.

Managers and analysts compare average collection period with the company's credit terms to determine how effectively the company manages its receivables. For example, if the credit period is 30 days then the average collection period should be 30 days. However, if this collection period is more than 30 days, it indicates collection problem. During this time period of 30 days, the company's resources are tied up i.e., low liquidity since it amounts to free credit out of the company's own resources. For a better understanding of the company's performance in receivables, a comparison over several years is to be made. For an internal and external analysis, the average collection period of a particular firm should be compared with industry average and other firms in the industry.

Taking the data given above we can derive the average collection period as shown in Table 6.12:

Table 6.12 Average Collection Period of the company as on March 31, 20x2 and March 31, 20x1 is given below:

Table 6.12: Average Collection Period

Particulars	As on 31.03.20x2	As on 31.03.20x1
No. of days in a year-365 Days (A)	–	–
Debtors Turnover ratio (B)	54.1	47.93
Average collection Period (A/B)	6.75 days	7.62 days

Average collection period is decreased from eight days to seven days. It means the company's performance in the collections is increased. Debtors are more liquid now compared to the previous year.

Creditors/Payables Turnover Ratio

In course of business operations, a firm has to make credit purchases and incur short-term liabilities. The supplier of goods i.e., creditor is naturally interested in finding out how much time the firm is likely to take in repaying its trade

creditors. From the business point of view, it represents cheap source of funds as a means of finance for most businesses. Consequently, many firms exploit its potential to the full.

a. Creditors/Payable Turnover Ratio $= \frac{\text{Net Credit Annual Purchases}}{\text{Average Trade Creditors}}$

b. Average Payment Period

$$= \frac{\text{Average Trade Creditors (Creditors + Bills Payable)}}{\text{Average Daily Purchases}}$$

or $$= \frac{\text{Creditors Turnover Ratio}}{\text{No. of Working Days}}$$

$$\text{Average Daily Purchases} = \frac{\text{Annual Purchases}}{\text{No. of Working Days in a Year}}$$

Average Payment Period

Average payment period is a measure of length of time taken by a company to pay its customers. This period represents effectively free finance to the company. Hence, companies generally tend to extend this period without compromising other considerations such as its payment reputation and legal requirements.

Table 6.13: Creditors Turnover Ratio and Average Payment Period of the company as on March 31, 20x2 and March 31, 20x1

Particulars	As on 31.03.20x2	As on 31.03.20x1
Net Purchases (A)	353	453
Creditors (B)	983.52	380.87
Creditors Turnover ratio C=A/B	0.36	1.19
Average Payment Period 365/C	1013.88	306.72

Average payment period represents the average number of days taken by the firm to pay its creditors. Generally, the lower the ratio, the better is the liquidity position of the firm and the higher the ratio, the less liquid is the position of the firm. But a higher payment period also implies greater credit period enjoyed by the firm and consequently substantial benefit is reaped from credit suppliers. But a much higher ratio may also imply lesser discount facilities availed or higher prices paid for the goods purchased on credit.

Long-Term Financial Position

It is important for a company to be able to assess its capacity to satisfy its long-term commitments. Also, it is important and useful for a firm to quantify the sources and nature of its long-term funding and to maintain a proper balance within the components. Lending institutions, shareholders, employees,

debenture holders are interested in the firm's continued ability to meet its debt repayment obligations, to operate profitably, to finance expansion and to diversify its activities without raising additional loans. In other words, they are interested in the long-term solvency.

All the business activities of the company i.e., financing activities, operating activities, and investing activities affect the long-term solvency of the company. One of the key elements in long-term solvency is capital structure. Capital structure relates to the company's sources of financing and its economic considerations. An enterprise's risk, the possibility of losing something of value is related to capital structure and hence analysts judge the long-term solvency of an entity as a part of capital structure assessment. Assessment of long-term solvency requires determination of firm's ability to generate sufficient cash flows to maintain productive capacity and meet debt and other obligations. Potential equity investors look into the financial structure and the stability of the company before they invest.

Significance of Capital Structure Ratios

The fundamental risk with a company with debt in its capital structure is the risk of inadequacy of cash under unfavorable conditions. Debt involves a commitment to pay fixed charges (interest and principal repayments), which cannot be postponed. Also, a high debt component in the capital structure implies lessened ability to raise further debt during adverse market conditions. Capital structure ratios measure the components of capital structure and their relationship with each other or in total. A company's financial stability and solvency position depends on the financing sources and the types and sizes of various assets its own. These ratios indicate financial strength from different points of view.

The following are the important capital structure ratios:

Debt-Equity Ratio

This ratio determines the soundness of the long-term financial policies of the company and also measures the relative investment proportions of outsider's fund and shareholder's fund in the company. It is also known as "External–Internal" equity ratio. It is calculated by the following formula:

$$= \frac{\text{Long-term Debts}}{\text{Shareholder's Fund}} \text{ or } \frac{\text{Long-term Debts}}{\text{Shareholder's Fund} + \text{Long-term Fund}}$$

The ideal ratio is 1:2 (i.e. 0.5`) in first formula, and 2:3 (i.e. 0.67) in second formula. A low ratio is favorable from the creditor's point of view because it provides safety to creditors. But the same low ratio is unfavorable from the shareholder's point of view because he has to forgo the higher returns, if the outsider fund is utilized for acquiring fixed assets.

Long-term debts include debentures. Shareholder' fund includes share capital (equity share capital and preference share capital), profit and loss account, capital reserves, reserves for contingencies, sinking fund, fund for redemption of debentures less fictitious assets like preliminary expenses, discount on issue of shares, debentures, etc. However, it may be noted that preference shares which can redeemable within 12 years are taken as debt.

A high debt-equity ratio connotes high degree of leverage, which implies substantial interest charges, and substantial exposure to interest rate movements. A low proportion of debt indicates a conservative capital structure. Most software companies in India since are knowledge based with strong entrepreneurial roots; these companies rely primarily on equity financing and are conservatively structured.

Providers of finance often impose restrictions on companies to borrow further through 'debt covenants', which are expressed in terms of certain ratio measurements. In the event of breach, the provider may withdraw his finance and hence the debt-equity ratio is a critical measure which every company wants to present in a positive light.

Following are the extracts taken from the Annual Report of Tata Steel Ltd.

Table 6.14(A): Equity

(₹ in crore)

Particulars	As on 31.03.2021	As on 31.03.2020
Equity share capital	1,198.78	1,146.13
Hybrid perpetual securities	775.00	2,275.00
Other Equity	89,293.33	73,416.99
Equity (A)	91,267.11	76,838.12

Source: Tata Steel Annual Report 2020-21

Table 6.14(B): DEBT

(₹ in crore)

Particulars	As on 31.03.2021	As on 31.03.2020
Secured	5,394.81	5,575.11
Unsecured	21,918.99	25,806.85
DEBT (B)	27,313.80	31,381.96

Source: Tata Steel Annual Report 2020-21

Table 6.14(C): Debt to Equity Ratio of Tata Steel Ltd. as on March 31, 2021 and March 31, 2020

Particulars	As on 31.03.2021	As on 31.03.2020
Equity (A)	91,267.11	76,838.12
Debt (B)	27,313.80	31,381.96
Debt Equity Ratio B/A	0.30	0.41

Source: Tata Steel Annual Report 2020-21

Ideal ratio of debt-to-equity is 0.5. The company's ratio is 0.30. It is indicating that the loans are less compared to the last year. But Tata Steel has more equity than debt which indicates the sound financial health of the company.

Capital Gearing Ratio

This is the most commonly used measure which quantifies the relationship between fixed return bearing debt to equity. It quantifies the relationship between long-term sources of finance bearing fixed costs (loans, debentures, bonds and preference shares) to equity (bearing variable cost).

The formula is

$$\text{Capital Gearing Ratio} = \frac{\text{Fixed Interest Bearing Securities}}{\text{Equity Shareholder's Fund}}$$

Fixed interest-bearing securities include preference share capital, debentures and long-term loans, which carry fixed rate of dividend and interest.

The higher this ratio, the more vulnerable the company is perceived to be, since there is high fixed commitment on its profits before equity interests can be satisfied. The standard ratio is 1. If the ratio is 1, then the firm is said to be evenly geared. If the ratio is more than 1 than the firm is highly geared i.e., major portion of funding is in the form of fixed interest-bearing securities. If the ratio is less than 1, then the firm is low geared.

Ratios like debt-equity ratio, and capital gearing ratio indicate whether a company is more depending on their internal resources than outside resources or vice versa.

Fixed Asset Ratio

This ratio explains whether the fixed assets are financed out of long-term funds or not. Or which part of capital employed is used for purchasing the asset. It is calculated as

$$= \frac{\text{Fixed Assets}}{\text{Capital Employed}} \qquad \text{or} \qquad \frac{\text{Fixed Assets}}{\text{Long-term Funds}}$$

It is prudent that the fixed assets and core working capital of a company is to be covered by long-term funds. If the ratio exceeds 1 it implies that some of the fixed assets were financed by short-term borrowings and current liabilities. This is very dangerous since short-term borrowing indicate repayment within a short

period. According to finance principle, the long-term requirements of fund should be met from the long-term fund and short-term requirements of fund should be met from the short-term fund.

From the point of view of debenture holders and other parties extending loan to the company, the ratio reveals the security available to them. When the ratio is more than 1, it implies the loans are secured by a mortgage on the fixed assets, and indicates whether additional secured loans can be raised or not.

The standard ratio is 0.67 and should not be more than 1. If it is less than 1, then it indicates that the part of the working capital is financed through long-term funds. Fixed asset means net fixed asset i.e., original cost less depreciation and investment in shares of subsidiaries. Capital employed includes share capital (equity and preference), reserves and surpluses, and long-term funds. Capital employed can be calculated based on the assets also.

Capital Employed = Shareholder's funds + Long-term funds – Miscellaneous Expenditure

OR

Capital Employed = Fixed Assets + Investments + Current Assets – Current Liabilities

Table 6.15: Extract of the Balance Sheet of Tata Steel Ltd as on March 31, 2021

		Note	Page	As at March 31, 2021	As at March 31, 2020
Assets					
I	**Non-current Assets**				
	(a) Property, plant and equipment	3	268	64,032.32	66,392.35
	(b) Capital work in progress			10,057.18	8,070.41
	(c) Right-of-use assets	4	271	3,905.97	4,113.31
	(d) Intangible assets	5	273	839.33	727.72
	(e) Intangible assets under development			408.79	176.64
	(f) Investments in subsidiaries, associates and joint ventures	6	274	28,444.61	26,578.41
	(g) Financial assets				
	(i) Investments	7	279	22,621.66	20,282.50
	(ii) Loans	8	283	7,509.33	199.26
	(iii) Derivative assets			42.52	162.46
	(iv) Other financial assets	9	285	91.66	60.42
	(h) Non-current tax assets (net)			1,645.10	1,557.82
	(i) Other assets	11	288	1,681.22	2,062.07
	Total non-current assets			**1,41,279.69**	**1,30,383.37**
II	**Current Assets**				
	(a) Inventories	12	289	8,603.79	10,716.66
	(b) Financial assets				
	(i) Investments	7	279	6,404.46	3,235.16
	(ii) Trade receivables	13	289	3,863.31	1,016.73

	(iii) Cash and cash equivalents	14	291	1,501.71	993.64
	(iv) Other balances with banks	15	291	170.00	233.23
	(v) Loans	8	283	1,555.95	1,607.32
	(vi) Derivative assets			66.93	209.96
	(vii) Other financial assets	9	285	351.54	230.41
	(c) Other assets	11	288	854.99	1,715.92
	Total Current Assets			**23,372.68**	**19,959.03**
III	**Assets held for sale**			**383.62**	**50.16**
Total Assets				**1,65,035.99**	**1,50,392.56**
Equity and Liabilities					
IV	**Equity**				
	(a) Equity share capital	16	292	1,198.78	1,146.13
	(b) Hybrid perpetual securities	17	295	775.00	2,275.00
	(c) Other equity	18	295	89,293.33	73,416.99
	Total equity			**91,267.11**	**76,838.12**
V	**Non-Current Liabilities**				
	(a) Financial liabilities				
	(i) Borrowings	19	299	27,313.80	31,381.96
	(ii) Derivative liabilities			71.20	122.55
	(iii) Other financial liabilities	20	302	413.66	293.59
	(b) Provisions	21	302	2,543.94	2,113.56
	(c) Retirement benefit obligations	22	303	2,087.86	2,224.44
	(d) Deferred tax liabilities (net)	10	286	6,111.70	5,862.28
	(e) Other liabilities	24	304	5,913.40	684.76
	Total Non-Current Liabilities			**44,455.56**	**42,683.14**
VI	**Current Liabilities**				
	(a) Financial liabilities				
	(i) Borrowings	19	299	-	7,857.27
	(ii) Trade payables	25	304		
	(a) Total outstanding dues of micro and small enterprises			160.66	118.62
	(b) Total outstanding dues of creditors other than micro and small enterprises			10,477.93	10,482.34
	(iii) Derivative liabilities			69.39	81.69
	(iv) Other financial liabilities	20	302	5,274.11	5,401.55
	(b) Provisions	21	302	1,074.43	663.86
	(c) Retirement benefit obligations	22	303	116.10	106.61
	(d) Deferred income	23	304	34.44	6.15
	(e) Current tax liabilities (net)			4,093.26	277.26
	(f) Other liabilities	24	304	8,013.00	5,875.95
	Total Current Liabilities			**29,313.32**	**30,871.30**
Total Equity and Liabilities				**1,65,035.99**	**1,50,392.56**
Notes forming part of the financial statements		1- 46			

Source: https://www.tatasteel.com/media/13915/tsl_ir21_final.pdf

Fixed Assets Ratio of Tata Steel for the years 2020-21 and 2019-20 can be calculated as shown in Table 6.16:

Table 6.16: Fixed Assets Ratio of Tata Steel as on March 31, 2020-21 and March 31, 2019-20

(₹ in crore)

Particulars	As on 31.03.2021	As on 31.03.2020
Non-Current Assets (A)	1,41,279.69	1,30,383.37
Current Assets	23,372.68	19,959.03
Total Assets	1,65,035.99	1,50,392.56
Less Current Liabilities	**29,313.32**	**30,871.30**
Capital Employed (B)	135722.67	119521.26
Fixed Asset Ratio A/B	1.04	1.09

Source: Tata Steel Annual Report 2020-21

Note: Capital Employed = Fixed Assets + Investments + Current Assets – Current Liabilities

Company's fixed assets ratio has decreased. It indicates that the company is depending more on long-term funds for financing current assets, which is a positive sign.

Return On Investment

Return on Investment is the most widely used measure of company performance. This is an important measure for those who finance the company in the form of equity and debt. This ratio links the profits to the investment required to generate them. It also helps to assess a company's return relative to its capital investment risk, since riskier investments are expected to yield higher returns. This ratio is the most widely used ratio for managerial effectiveness, level of profitability, planning and control.

This ratio reflects the managerial skill, resourcefulness, ingenuity, and motivation of managers. It is also an important indicator of long-term financial strength of the company. ROI does not take into account the holding period of an investment, which can be an issue when comparing investment alternatives. ROI is the most popularly used measure but care should be taken when calculating this ratio .If the expected costs are not included, ROI might be over exaggerated. The diverse perspective of various users of the financial statements has resulted in different versions on Return on Investment.

a. **Return on Capital Employed (ROCE):** Traditionally, capital employed has been considered as total long-term funding. This ratio assesses the return earned by both equity and debt. It indicates how well the firm utilizes its asset base.

$$\text{Return on Capital Employed} = \frac{\text{Earnings before Interest and Tax}}{\text{Net Assets Employed}}$$

$$= \frac{\text{EBIT}}{\text{Average (Total Debt + Shareholder's Equity)}}$$

Return = Net Profit + Interest on long-term debts + Provision for tax

Capital employed = Equity share capital + Reserves and Surplus
+ Preference share capital + Debentures
+ Long-term loans – Miscellaneous expenses.

or

Capital employed = Net total assets
= Fixed assets + current assets – current liabilities.

This ratio measures the ability of the firm to reward providers of long-term funds. This ratio also helps to attract future providers of capital. This is one of the most important ratios used for measuring the overall efficiency of a firm. The primary objective of the business is to maximize its earnings; this ratio indicates the extent to which this primary objective of business is being achieved. This ratio is of great importance to the present and the prospective shareholders as well as the management of the company. It reveals how well the resources of the firm are being used; higher the ratio better is the results.

b. **Return on Equity:** Since from the point of view of equity shareholders, preferred stock has a fixed claim to the net assets of the company, this ratio is computed by dividing the income after tax less preference dividend by total shareholder's equity less preference stock.

$$\text{Return on equity} = \frac{\text{Net Income} - \text{Preference dividends}}{\text{Average shareholder's equity}}$$

This ratio focuses on the efficiency of the company in earning profits on behalf of its equity shareholders, by relating the profits to the total amount of equity shareholder's funds employed in the company. The two elements of the ratio are net profits and equity shareholder's funds. Equity Shareholder's funds include equity share capital, free reserves such as share premium, revenue reserve, capital reserve, retained earnings and surpluses less accumulated losses, if any. Net income is arrived at after deducting interest on long-term borrowing and income tax, because those will be the only profits available for shareholders.

The return on shareholders investments should be compared with the return of other similar businesses in the same industry. The inter-firm comparison of this ratio helps in determining whether the investments in the firm are attractive or not as the investors would like to invest only is those companies where the returns are higher. Likewise the trend ratios can also be calculated for a number of years to get an idea of the prosperity, growth or deterioration in the companies' profitability and efficiency.

Exhibit 6.3: ROCE of Tata Steel for the year ended March 31, 2021

As per the Annual Report of Tata Steel for the year ended March 31, 2021, the company has generated a Return on Capital Employed of 14.38%. For the previous year 2019-20, the company had a ROCE of 9.54%. Its notes to accounts reveal the formula used by the company for computing the ROCE as follows:

Return on Average Capital Employed: EBIT/Average Capital Employed

Capital Employed: Total Equity + Non-current Borrowings + Current maturities of Non-current borrowings and Lease Obligations + Current Borrowings + Deferred tax liabilities)

EBIT: PBT +/(-) Exceptional Items + Net Finance Charges)

Source: Annual Report 2020-21

Activity 6.2

a. Consider the data given below and advise, if it is profitable for the company to issue 16% debentures of ₹ 2,00,000 with a 10 year maturity.

Year	1	2
EBIT	53,950	81,500
Interest	17,500	25,000
Debt	1,48,000	2,03,000
Equity	1,11,300	1,52,000

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b. The net sales of Apex Co., are ₹ 15 crore. The EBIT of the company as a percentage of sales is 12%. The capital employed of the company comprises ₹ 5 crore of equity, ₹ 1 crore of 13% preference shares and ₹ 3 crore of 15% debt capital. The company's profit is subject to tax at 40%. Calculate the return on equity for the company.

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c. If current ratio is 2.8, liquid ratio is 1.5 and working capital is ₹ 90,000, then find out the value of Inventory.

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6.4.3 Cash Flow Statement Ratios

Cash flow statement provides information about the organizations liquidity and its ability of generating funds from internal sources. Generally, the data in the cash flow statements is used for:

a. Reviewing individual cash flow items for analysis
b. Examining the trend of different cash flow components over time
c. Examining the relationship between cash flow components and related elements in income statement
d. Analyzing the interrelationship between cash flow components

When analyzing the liquidity of a firm, it is believed that cash flow information is more appropriate than balance sheet or income statement information. Ratios, which can show the cash position or change in cash of the organization, are called as cash flow ratios. High level of these ratios indicates the increase in cash earnings and liquidity of the organization. Cash flow ratios as a tool for analysis have been slow to develop and now play a prominent role. Most credit analysts use these ratios in their credit rating decisions.

Cash flow ratios are used to test for solvency and liquidity. They are used to test how much cash was generated over a period of time and compare that to the near-term obligations. This gives the management a dynamic picture of the resources that must be pooled to meet its obligations.

Operating Cash Flow Ratio

Creditors and lenders use these ratios to analyze the company's ability to meet its payment commitments. While traditional ratios like current and liquidity ratios indicate the availability of current assets on a single day, operating cash flows reveal the cash generated over a period of time. This ratio considers the cash availability from operating activities towards meeting the current liabilities and obligations.

$$= \frac{\text{Net cashflow from operating activities}}{\text{current liabilities}}$$

Current Liabilities = Current maturities of long-term debts and current notes payable.

This ratio indicates the firm's ability to meet its currently matured liabilities. The higher the ratio, the better the firm's ability will be to meet its currently matured liabilities. The higher the ratio indicates the better liquidity position of the organization. This ratio is related to liquidity ratios.

Operating cash flow ratios vary from industry to industry, since in the case of capital intensive company the cash generation from operating activities is substantially lower than other industries.

Following is the extract taken from the annual report of a company. Calculate operating cash flow to total debt ratio:

"The company's current liabilities includes creditors for goods ₹ 2,230.41 crore as on March 31, 20x2. Current maturities of long-term debts are ₹ 1,811.25 crore and Cash from operating activities is ₹ 7,397.22 crore."

(Amounts repayable within one year ₹ 1,811.25 crore) whether to be included

Operating cash flow to current debt

= Operating Cash Flow/Current maturities of long-term debts and current notes payable

= ₹ 7, 397.22 /₹ 4,041.66 = 1.83 times

The company has cash flows of 1.8 times more than the debt i.e. the company's debt paying capacity is covered 1.8 times.

Concept of Free Cash Flow

An important derivative tool for analyzing cash flows is the free cash flow calculus. Free cash flow means the amount available for corporate purposes after provisions for financing outlays and expenditures to maintain productive capacity at current levels. This concept is helpful in assessing the internal growth and financial flexibility of the organization. It indicates the ability of the firm to meet ongoing financial and operational commitments and above it, its ability to finance growth.

Generally free cash flows are calculated as follows:

Particulars	Amount (₹)
Cash from Operations	xxx
Less: Capital expenditure required to maintain productive capacity used up in the production of income	xxx
Dividends	xxx
Free Cash Flow	xxx

Positive free cash flows reflect the availability of amount for business activities after allowance for financing and investing requirements in order to maintain productive capacity at current level. One thing to be noted is that the companies do not disclose the capital expenditure needed to maintain productive capacity at current levels.

Table 6.17: Free Cash Flow of Tata Steel Ltd., for 2020-21

Particulars	Amount (₹)
Cash from Operations	29,368.56
Free Cash Flow	23,748

Free cash flows, in other words are nothing but the amount available for maintenance of the organization. If free cash flow is increasing, it means there is a reduction in the investment activities resulting in slow growth. If free cash

flow is decreasing, it indicates the investment is in productive purposes. Generally, the trend of this cash flow depends upon the management's future plans.

Operating Cash Flow/Total Debt

This ratio indicates the firm's ability to cover total debt with the operating cash flow. The higher the ratio, the better it will be to carry its total debt. It is very important ratio from a debt standpoint. The formula for this ratio is = Operating Cash Flow/Total Debt.

Total debt includes all the possible debt items in the balance sheet.

Example:

A company's total debt as on 31.03.20x1 is ₹ 28,735.64 crore and cash from operating activities is ₹ 12,432.80 crore."

Operating Cash Flow to Total debt = Operating Cash Flow/Total Debt

= 12,432.80/28,735.64 = 0.43

The company's operating cash flow covers the 43% of the debt. The debt paying capacity from operating cash flows is more to the company.

Evaluating Cash Flow Adequacy

Cash flow adequacy shows whether a business is generating sufficient cash from operations to pay for fixed assets as well as liabilities repayments and dividends to the owners. Generally, cash flow adequacy of a company is evaluated by using the following ratio:

Cash Flow Adequacy

Cash Flow Adequacy

$$= \frac{\text{EBITA} - \text{Cash taxes} - \text{Cash interest} - \text{Capital expenditures}}{\text{Average of the annual debt maturities scheduled over the next five years}}$$

A high cash flow adequacy indicates the high credit quality of the firm. Other capital flow adequacy ratios include the following:

Cash Flow Yield

This ratio measures overall ability to generate operating cash flows in relation to net income. The formula for calculating cash flow yield is

$$\frac{\text{Net Cash Flows from Operating Activities}}{\text{Net Income}}$$

Example:

A company's net income for the year 20x1 is ₹ 6413.19 crore. Its cash from operating activities is ₹ 12438.80 crore.

Cash Flow Yield = Operating Cash Flow/ Net Income

= ₹ 12438.80/6412.19 = ₹ 1.93

Check Your Progress – 1

1. The net cash flow from operating activities is ₹ 2,00,000 and current liabilities is ₹ 40,000. What is the operating cash flow ratio?
   a. 5
   b. 4
   c. 3
   d. 2
   e. 1
2. Which one of the following ratios focuses on the efficiency of the company in earning profits on behalf of its equity share-holders?
   a. Net Profit Ratio
   b. Operating Profit Ratio
   c. Return on Equity
   d. Return on Capital Employed
   e. Capital Gearing Ratio
3. Although it is very useful to the management, Ratio Analysis has certain inherent limitations. Identify, which of the following statements is not a limitation of Ratio Analysis.
   a. Ratios are based upon the figures of financial statements and in case these figures are window dressed, ratios would not be able to depict an accurate picture of the firm.
   b. It uses past information to analyze the firm's performance, which is not properly indicative of the future and this may lead to failure in predicting the future.
   c. Ratio generally varies from industry-to-industry and from situation-to-situation.
   d. The effectiveness of studying a ratio is based on their study over a number of years. This, however, in actual practice does not always happen, and analysts are forced to state their opinion on the basis of single or a handful of years.
   e. It helps in analyzing the profitability, operational efficiency and liquidity of the business.
4. Which of the following ratios indicates the capital structure?
   a. Debt-Equity ratio
   b. Inventory turnover ratio
   c. Total asset turnover ratio
   d. Return on equity
   e. Return on assets

5. Total purchases are ₹ 8,50,000 out of which cash purchases are ₹ 2,50,000. The opening and closing trade payables are ₹ 2,50,000 and ₹ 1,50,000 respectively. Calculate trade payables turnover ratio
   a. 10 times
   b. 6 times
   c. 4 times
   d. 3 times
   e. 2 times

Activity 6.3

a. What is the necessity of a cash flow statement when a profit and loss account and balance sheet is already prepared? How does it differ from a cash book or a cash account? Is Cash Flow Statement part of Financial Statements, to be reported?

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b. If net cash flow from operating activities is ₹ 3,00,000 and Net Income is ₹ 80,000. Calculate cash flow yield.

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6.4.4 Valuation Ratios

The valuation ratios, relates the firm's stock price and its earnings. Valuation ratios are used to determine the relative attractiveness of a given stock based on its current price or market capitalization. These ratios are very useful to the investors to know and analyze the value of their investment. The major ratios falling under this head are earnings per share, price to earnings ratio, book value per share, market value to book value ratio, and dividend payout ratio. These ratios indicate the company's past performance and future prospects from the point of view of the share-holder. If the liquidity, asset management, debt management, and profitability ratios all look good, then the market value ratios will be high, and the stock price will probably be as high as can be expected.

Ratios reveal more information and are interpretable and meaningful when compared with prior year ratios, industry ratios, competitor's ratios, or predetermined standards.

Price/Earnings (P/E) Ratio

The P/E ratio is an exceptional tool, because it is easy to calculate and it incorporates many valuation factors. This ratio comprises two components, one reflecting the expectation of market concerning future earnings (market price of shares) and another reflecting the earnings available to equity share-holders based on the results of most recent past accounting period. Sometimes this ratio is also called as earnings multiple, and indicates how much an investor paid for every rupee earnings of the company. The ratio defines the relationship between the market value per share and the earning per share:

$$\text{Price Earnings Ratio} = \frac{\text{Market Price per Share}}{\text{Earning per Share}}$$

For example, supposing the current market price is ₹ 70 per share, and current period EPS is ₹ 10 per share.

$$\text{Price/Earnings Ratio} = ₹\ 70/₹\ 10 = 7 \text{ times}$$

This implies that if ₹ 70 is paid for these shares, then seven years of earnings of ₹ 10 per share are being bought. Since the current market value of a share, reflects the expectations of investors concerning the future profits of the company, the ratio effectively measures the market's anticipation of future earnings.

Analysts generally compare P/E ratio with industry average or with the P/E ratio of some other company within the industry. P/E ratios typically range between 5 and 30. High P/E ratios are associated with firms for which strong growth and good prospects are predicted in the future. If the P/E ratio of a firm is less than the industry average, we can say that the firm's share price is undervalued. The use of other firms in the industry as the control group, is often not a solution, because firms within the same industry can have different types of business, risk and growth profiles.

Analysts and investors use this ratio to decide whether the company is highly rated or lowly rated, by comparing with P/E ratio of the market. Such comparisons should however be limited to within an industry and at a particular point of time.

Table 6.18: Calculation of Price Earnings Ratio of Infosys Limited on 12th February, 2021

Particulars	As on 12.2.2021	
Market Price as on 12th Feb, 2021*(₹) (A)	1309.22	
Earnings Per Share (₹) (B)	42.37	
Price Earnings Ratio (A) ÷ (B)	30.89	

Source: https://www.moneycontrol.com/india/stockpricequote/computers-software/infosys/IT

Generally, P/E ratio of a firm depends on various factors. Some of the important factors include earnings growth, composition of debt and equity, brand etc.

Price/Book Value Ratio

This is the ratio between market value of share and book value of the share. This ratio compares investor's assessment of a company's wealth at a particular point of time with the company's reported financial position. This ratio is calculated by using the following formula:

$$\text{Price to Book Value} = \frac{\text{Market Price per Share}}{\text{Book Value per Share}}$$

This ratio is useful to know how many times that the share is overvalued or undervalued in the market. If this ratio yields slightly in excess of 1, then the reported costs of net assets based on historical cost (reflected in the book value per share) can be said to approximate the market's perception of the company's earnings power (reflected in Market Price per share). If the market price substantially exceeds book value, then the market thinks historical cost disclosures are irrelevant for projecting future rate of returns. A ratio of less than one means that the market considers firm assets as impaired though it is unrecognized by the financial reporting system.

Market price per share is available on any day from the major stock exchange portals. The book value per share can be calculated by assets approach method or liabilities approach method. Here we calculated book value per share based on assets.

For calculating the Price/Book value ratio, first we have to find out the book value per share which is shown in Table 6.19 and later the ratio is calculated as shown in Table 6.20

Table 6.19: Book Value per Share of Infosys as on March 31, 2021

(₹ in crore)

Particulars	As on 31.03.2021
Assets (A)	
Total Non-Current Assets	45,6567
Current Assets, Loans and Advances	48,282
Total Assets	93,939
Liabilities (B)	
Non-Current Liabilities	4,786
Current Liabilities	17,622
	22,408
Equity Shareholders Funds (C=A-B)	71,531
No of Equity Shares (D)	426,06,60,846
Book Value per Share (C/D)	167.88

Source: Infosys Annual Report 2020-21

Table 6.20: Price/Book Value Ratio of Infosys Limited as on March 31, 2021

Particulars	As on 31.03.2021
Market Price as on February 12, 2021 (A)	1309.22
Book Value Per Share (`) (B)	167.88
Price / Book Value Ratio (A) ÷ (B)	7.798

**Source: Infosys Annual Report 2020-21*

Market price is nearly eight times more than the book value per share. It is a positive sign. Share-holders equity is four times overvalued in the open market.

Dividend Payout Ratio

This ratio measures what a company pays out to its investors in the form of dividend. This is the ratio between dividends and earnings. It indicates the portion of current earnings per common share being paid out in dividends. Thus,

$$\text{Dividend Payout Ratio} = \frac{\text{Dividends}}{\text{Profit After Tax}} \times 100$$

or

$$\text{Dividend Payout Ratio} = \frac{\text{Dividend per Equity Share}}{\text{Diluted Earnings Per Share before Non-recurring Items}}$$

This ratio is very important from the share-holders point of view. If a company pays whole or substantially the whole of its earnings for paying dividends and retains nothing for future growth and expansion, then the chances of capital appreciation are dim. Hence, a share-holder looking for quick returns sees for companies whose dividend payout ratio is high, and investors looking for capital appreciation look for companies whose payout ratio is low.

This ratio can be calculated by taking diluted earnings per share from a conservative view point. Also, for a stable dividend policy, the non-recurring items are not to be considered.

There is no thumb rule for a correct dividend payout ratio. Growth companies generally retain more profits to fund its growth plans and pay less dividends. On the other hand, companies belonging to industries which have reached matured stage and have little room for growth may pay high dividends. This ratio reflects on the policy of the company. A high payout ratio signifies liberal policy and a low payout ratio signifies conservative policy. Companies usually hesitate to decrease dividends since they have an adverse effect on the market price.

Exhibit 6.4 gives the dividend payout ratio at Infosys Limited for March 31, 2021 and March 31, 2020:

Exhibit 6.4: Dividend Payout Ratio at Infosys Limited for 2020-21 and 2019-20

	Fiscal 2021		Fiscal 2020	
	Dividend per Share (in ₹)	Dividend Payout (in ₹ crore)	Dividend per Share (in ₹)	Dividend Payout (in ₹ crore)
Interim Dividend	12.00	5,112	8.00	4,107
Final Dividend	15.00	6,391	9.50	4,046
Total Dividend	27.00		17.50	
Payout Ratio (interim and final dividend)	52.2%		53.5%	

Source: Infosys Annual Report 2020-21

Special dividend is not a normal item. Thus, while calculating dividend payout ratio, special dividend and tax on this special dividend should not be taken into account.

Infosys is paying around 52.2% in their earnings as dividend.

Book Value Per Share

Book Value per Share is published in most annual reports. Book value indicates the amount of share-holder's equity that relates to each share of outstanding equity stock.

It is the intrinsic value of share and is obtained by dividing the share-holders funds with number of equity shares. Thus,

$$\text{Book value per Share} = \frac{\text{Total Shareholder's Funds} - \text{Prefrence Shareholder's Funds}}{\text{Number of Equity Shares Outstanding}}$$

(or)

$$= \frac{\text{Equity Shareholder's Funds}}{\text{Number of Equity Shares Outstanding}}$$

Equity Shareholders Funds can be calculated using two approaches. One is assets side approach and the other one is liabilities side approach.

Assets Side Approach

Equity Shareholder's Funds = Assets – Liabilities – Preference Shareholder's Claims

Total assets include all fixed assets, investments, current assets, loans and advances. Assets may either be valued at book value, or net realizable value, or net replacement value. Investments are to be valued at market value only, no

matter what the method of valuation may be. In case of inventories, the finished stock may be valued at market value; however raw material and work-in-process must invariably be valued only at cost. Bad and doubtful debts are to be provided for and deducted from the sundry debtors. Fictitious assets on the assets side should not be taken into account. Liabilities include all secured, unsecured and current liabilities. Preference shareholders claims include their capital and arrears in dividends and proposed dividends, if any.

Liability Side Approach

Equity Shareholder's Funds = Equity Share Capital + Reserves – Fictitious Assets

Paid-up equity share capital should be considered after adjusting the calls-in-arrears and calls-in-advance. Reserves include all free reserves, capital reserves, share premium, retained earnings and surplus less accumulated losses if any. All the items shown under the head Miscellaneous Expenditure on the asset side should be deducted from share-holder's funds as fictitious assets.

Equity Shareholder's Funds include capital and reserves such as share premium, revenue reserve, capital reserve, retained earnings and surpluses less accumulated losses if any. As per the Infosys Limited's annual report, the company reported a Book value per share of ₹ 180 as at March 31,2021 as against ₹ 154 as on March 31, 2020.

Exhibit 6.5: Significance of Book Value per Share

Unlike the market value of the share that reflects the potential of the firm as seen by the investor, Book Value of the share represents past unrecovered cost of the asset.

Book Value per share is of limited use to the investment analyst since it is based on the book figures which are historical in nature. However, when the market value is below the book value, investors view the company as lacking potential. When the market value is more than the book value then the investors view the company as having more potential and worth more than the market value of share.

Source: ICFAI Research Center

Check Your Progress – 2

6. Indicate the ratio that is used to measure the market's anticipations of future earnings of the company.
   a. Price/Earnings ratio
   b. Earnings per share ratio
   c. Book value per share
   d. Price/Book value ratio
   e. Dividend per share

7. B Co. Ltd, paid out one half of the last year's earnings as dividends. B Company's earnings increased by 20%, and the amount of its dividends increased by 15% in the current year. What is B Company's dividend payout ratio in the current year?

   a. 50%

   b. 57.5%

   c. 47.9%

   d. 75%

   e. 49%

8. Calculate the book price per share with the given values if equity paid-up capital is ₹ 2,00,00,000, Preference share capital is ₹ 75,00,000, Capital reserves are: ₹ 2,50, 000 and number of equity shares are 5,00,000.

   a. ₹ 40.5

   b. ₹ 24.5

   c. ₹ 55.5

   d. ₹ 25.5

   e. ₹ 55

9. Which of the following is not a type of classification of accounting ratios?

   a. Valuation ratios

   b. Income statement ratios

   c. Balance sheet ratios

   d. Cash flow statement ratios

   e. Growth ratios

10. Ratios are the best tools for measuring liquidity, solvency, profitability and management efficiency of the firm. In the light of the above statement, which of the following statements does not represent a benefit of ratio analysis?

    a. It ascertains the financial position of the business at a specific period of time.

    b. It enables inter-firm and intra-firm comparisons.

    c. It analyzes the past results to help the management to prepare budgets, formulate policy, and prepare a future plan of action.

    d. It is also called the surveyor of efficiency as it throws light upon the efficiency.

    e. It takes time dimension into account for analyzing the data.

Activity 6.4

a. Identify the major ratios falling under the category of valuation ratios.

_____

_____

_____

b. Calculate the market price of the share if profit after tax is ₹ 1,50,000, number of shares is 50,000, and Price to Earnings ratio is 8.

_____

_____

_____

c. If Sigma Ltd., has PAT of ₹ 9,00,000 and paid ₹ 3,36,000 by way of equity dividends, then calculate the dividend payout ratio of Sigma Ltd.

_____

_____

_____

6.5 Limitations of Financial Ratio Analysis

Although it is very useful to the management, Ratio Analysis has certain inherent limitations:

a. Ratios are based upon the figures of financial statements and can be as true as the financial statement figures. In case these figures are window dressed, ratios would not be able to depict an accurate picture of the firm.

b. Another argument made against ratio analysis is that it uses a management and past information to analyze the firms' performance. It is not properly indicative of the future and this may lead to failure in predicting the future.

c. Ratio generally vary from industry-to-industry and from situation-to-situation. Various factors lead to a ratio being considered safe or unsafe, the industry, the past profits of the firm, the debt-equity mix. Thus no standard ratio can be said to be ascertainable to which all the firms should adhere to.

d. The effectiveness of studying ratio is an increased manifold, if they are done so over a period of years. This, however, in actual practice does not always happen, and analysts are forced to state their opinion on the basis of single or a handful of years.

e. Different companies may follow different accounting policies in respect of depreciation, stock valuation, etc., comparison between the ratios of two firms following different policies may not give a fair picture.

f. Financial ratios are inter-related, not independent. Interpretation of ratio on its own may highlight efficiency. But interpretation of all the ratios taken together may speak differently. Such inter-dependence among the ratio can be taken care of through multivariate analysis.

g. It is difficult to decide the optimum level of a ratio, in spite of the presence of industry averages.

h. Many companies have operations spread across a number of industries. As there may not be any other company having a presence in the same industry, that too the development of a benchmark in the same proportion becomes a problem. Even when the company is not a diversified one, figures for the various firms are needed in addition to the industry average, in order to draw a meaningful conclusion.

i. Financial statements do not take into account the changes in price levels. Analysis of such statements may not give a true picture of the state of affairs.

j. There may be a high degree of correlation among the various ratios calculated, due to the presence of some common factor. This may make interpretation of all the ratios confusing. Hence, it becomes essential to choose few ratios, which can convey the required information.

6.6 Summary

- Financial ratio analysis is a statistical tool that measures the relationship between two financial figures.
- It involves determining, interpreting and presenting numerical relationships between the various items in the financial statements.
- Ratios are the best tools for measuring liquidity, solvency, profitability and management efficiency of the firm.
- Investors, lenders, management, customers, government, financial analysts, researchers are a few parties interested in ratio analysis, which speaks about the financial soundness of the firm.
- Profitability ratios focus on the sufficiency and sustainability of an entity's earnings. Income statement ratios are very important for all the users of financial statements.
- The gross profit ratio measures the relationship of gross profit to net sales and is usually expressed as a percentage. It represents the excess of what the concern is able to charge as sale price over the cost of goods sold.

- The operating profit ratio establishes the relationship between operating profit and net sales or revenue earned. The net profit ratio establishes the ratio between net profit (after taxes) and sales. It indicates the efficiency of the management in manufacturing, selling, administrative and other activities of the firm.
- The EPS is a good measure of the profitability of a business. The EPS when compared with the EPS of similar companies gives a view of the comparative earnings or earning power of a firm.
- The liquidity ratios comprise of current ratio and liquid ratio. The current ratio indicates the firm's ability to pay its current liabilities out of its current assets, while the acid test ratio or liquid ratio is a supplementary ratio to give double assurance as to the soundness of the current financial position of a business. This ratio is calculated by dividing the quick asset by current liabilities.
- Turnover ratios measure the operational efficiency of the business. The popular turnover ratios are inventory turnover ratio, receivables turnover ratio and payables turnover ratio.
- Capital structure ratios measure the components of capital structure and their relationship with each other or in total. A company's financial stability and solvency position depends on the financing sources and the types and sizes of various assets its own. These ratios indicate financial strength from different points of view.
- Cash flow ratios are used to test for solvency and liquidity. They are used to test how much cash was generated over a period of time and compare that to the near-term obligations. This gives the management a dynamic picture of the resources that must be pooled to meet its obligations.
- Financial ratios are not free from limitations. Window-dressing is adhered to change the character of financial ratios by management. Differences in accounting policies, interpretation of financial terms and accounting periods make the ratios between two firms, non-comparable.

6.7 Glossary

Average payment period is a measure of length of time taken by a company to pay its customers. This period represents effectively free finance to the company.

Book Value of an asset is its historical cost less accumulated depreciation. The book value per share is the net worth of the company divided by the number of outstanding shares.

Book Value per Share indicates the amount of share-holder's equity that relates to each share of outstanding equity stock. It is the intrinsic value of share and is obtained by dividing the share-holders funds with number of equity shares.

Cash flow adequacy shows whether a business is generating sufficient cash from operations to pay for fixed assets as well as liabilities repayments and dividends to the owners.

Capital Gearing ratio is the most commonly used measure which quantifies the relationship between fixed return bearing debt to equity.

Capital Structure is the composition of a firm's long-term financing consisting of equity, preference capital, and long-term debt.

Cost of Capital is the minimum rate of return, the firm must earn on its investments in order to satisfy the expectations of investors who provide the funds to the firm. It is often measured as the weighted arithmetic average of the cost of various sources of finance, tapped by the firm.

Current Assets are the assets which normally get converted into cash during the operating cycle of the firm.

Current Liabilities are liabilities that are normally payable within a year.

Current Ratio indicates the firm's ability to pay its current liabilities out of its current assets. It shows the firm's commitment to meet its short-term liabilities (current liabilities).

Debt Servicing Coverage Ratio (DSCR) is a measure of the ability of a unit to pay off its debts; more specifically, it is the capacity of the firm to repay term loans and interest thereon. It is calculated by dividing the net cash inflow by the term loan and interest thereon.

Dividend Coverage Ratio measures the adequacy of profits to cover the dividends. This ratio safeguards the preference shareholders dividend incomes.

Dividend Payout Ratio measures what a company pays out to its investors in the form of dividend. This is the ratio between dividends and earnings.

Diluted Earnings per Share is calculated by dividing the net profit after taxes and preference dividend by the weighted average number of shares. This is used when there are potential equity shares in the capital structure of the organization.

Financial Ratio is a ratio based on figures obtained from the firm's financial statements and supposedly reflects some aspect of the firm's financial condition and performance.

Free Cash Flow is the cash available for distribution after taxes but before the effects of financing. Calculated as net income plus depreciation less expenditure required for working capital and capital items adjusted to remove effects of financing.

Fixed Assets ratio explains whether the fixed assets are financed out of long-term funds or not. Or which part of capital employed is used for purchasing the asset.

Fixed Interest Coverage Ratio measures the cover or safeguard that exists for the lenders of debt. This ratio reveals the debt servicing capacity of the firm.

Gross Profit ratio measures the relationship of gross profit to net sales and is usually expressed as a percentage. Thus, it is calculated by dividing the gross profit by sales.

Net worth of a firm consists of paid-up equity capital plus reserves and surplus.

Operating Profit Margin refers to net operating income/sales. A firm earnings before interest and taxes. This ratio serves as an overall measure of operating effectiveness.

Price/Book Value Ratio is the ratio between market value of share and book value of the share. This ratio compares investor's assessment of a company's wealth at a particular point of time with the company's reported financial position.

Return on Equity (ROE) is the ratio of equity earnings to net worth**.**

Shareholders' Funds are funds owned by the shareholders i.e., share capital, retained earnings and reserves.

Turnover Ratios, also referred to as activity ratios or asset management ratios, measure how efficiently the assets are employed by the firm.

6.8 Self-Assessment Test

1. Ratio analysis is one of the important tools of financial statement analysis. Discuss.
2. What are the limitations of ratio analysis?
3. Describe the ratios that are to be calculated to analyze the short term liquidity position of a business.
4. What are income statement ratios? What do they convey?

6.9 Suggested Readings/Reference Material

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6.10 Answers to Check Your Progress Questions

1. (a) Operating cash flow ratio = $\frac{\text{Net cashflow from operating activities}}{\text{current liabilities}}$

$= ₹\ 2,00,000 / ₹\ 40,000 = 5$

2. (c) Return on Equity

Return on Equity ratio focuses on the efficiency of the company in earning profits on behalf of its equity share-holders, by relating the profits to the total amount of equity share-holder's funds employed in the company.

3. (e) It helps in analyzing the profitability, operational efficiency and liquidity of the business.

All the other options are limitations of ratio analysis

4. (a) Debt-Equity Ratio

This ratio determines the soundness of the long-term financial policies of the company and also measures the relative investment proportions of outsider's fund and share-holder's fund in the company. It is also known as "External–Internal" equity ratio.

5. (d) 3 times

Net credit purchases = ₹ 8,50,000 – ₹ 2,50,000 – ₹ 6,00,000

Average trade payables = 2,50,000 +1,50,000 / 2 = 2,00,000

Trade payables turnover ratio = 6,00,000/2,00,000 = 3 times

6. (a) Price/Earnings ratio

$$\text{Price Earnings Ratio} = \frac{\text{Market Price per Share}}{\text{Earning per Share}}$$

As the current market value of a share, reflects the expectations of investors concerning the future profits of the company, the ratio effectively measures the market's anticipation of future earnings.

7. (d) 75%

$$\text{Dividend Payout} = \frac{\text{Dividends}}{\text{Profit After Tax}} \times 100$$

Dividend Payout = 15/20 x 100= 75%

8. (a) ₹ 40.5

Book value of Share =

(or)

$$\frac{\text{Equity Shareholder's Funds}}{\text{Number of Equity Shares Outstanding}}$$

Book value of Share = 2, 00, 00,000 + 2, 50,000 / 5, 00,000 = ₹ 40.5

9. (e) Growth ratios

All the other options are types of accounting ratios.

10. (a) It ascertains the financial position of the business at a specific period of time.

All the other options are the benefits that accrue from undertaking ratio analysis.

Foundations of Accounting & Finance

Course Components

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3.	Elements of Financial Statements
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