Unit – 1

Business Finance

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Introduction

Business concern needs finance to meet their requirements in the economic world. Any kind of business activity depends on the finance. Hence, it is called as lifeblood of business organization. Whether the business concerns are big or small, they need finance to fulfil their business activities.

Meaning of Finance

Finance may be defined as the art and science of managing money. It includes financial service and financial instruments. Finance also is referred as the provision of money at the time when it is needed. Finance function is the procurement of funds and their effective utilization in business concerns.

Definition of Finance

According to **Khan and Jain,** –Finance is the art and science of managing money‖.

According to **Oxford dictionary**, the word _finance‘ connotes _management of money‘.

Meaning of Business Finance

Money required for carrying out business activities is called business Finance.

Definition of Business Finance

According to the **Wheeler,** ―Business finance is that business activity which concerns with the acquisition and conversation of capital funds in meeting financial needs and overall objectives of a business enterprise‖.

According to the **Guthumann and Dougall**, ―Business finance can broadly be defined as the activity concerned with planning, raising, controlling, administering of the funds used in the business‖.

Financial management (Meaning)

Financial management is concerned with optimal procurement as well as usage of Finance.

Financial management (Definition)

Howard and Upton : Financial management —as an application of general managerial principles to the area of financial decision-making.

Weston and Brigham : Financial management —is an area of financial decision-making, harmonizing individual motives and enterprise goals‖.

Approaches

The approach to the scope and functions of financial management is divided for the purpose of exposition into two broad categories:

- Traditional approach.
- Modern approach.

Traditional Approach

The traditional approach, which was popular in the early stage, limited the role of financial management to raising and administering of funds needed by the corporate enterprises to meet their financial needs.

Main limitations of Traditional Approach

1. Ignored routine problems.
2. Ignored finance manager‘s viewpoint.
3. Ignored non-corporate enterprise.
4. No emphasis on allocation of funds.

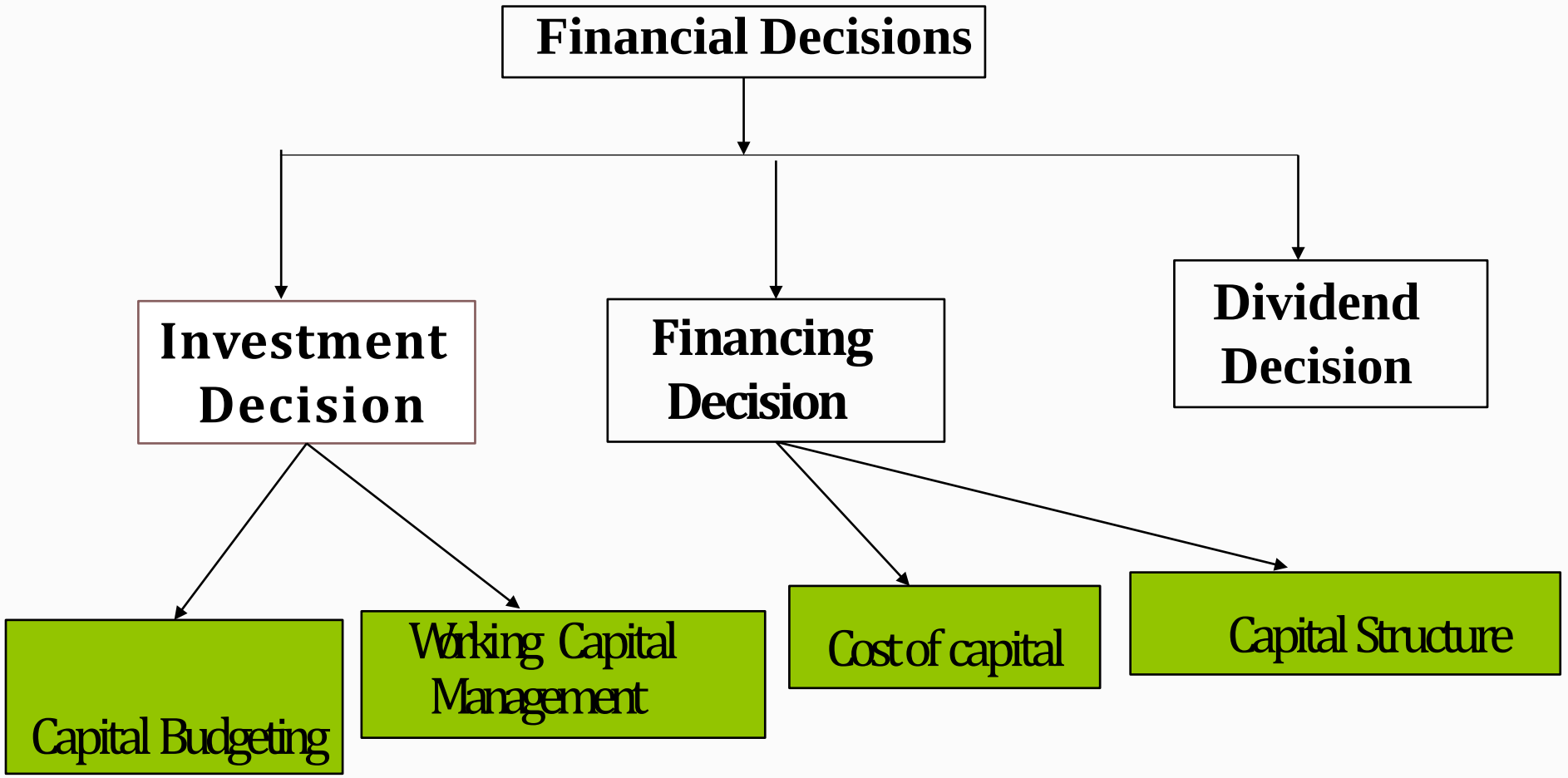
Modern Approach

According to modern approach the term financial management provides a conceptual and analytical framework for financial decision-making.

Major decisions

The financial management can be further classified into three major decisions:

- The financing decision.
- The investment decision.
- The dividend decision.


Financial Decisions
Investment Decision
Financing Decision
Dividend Decision
Capital Budgeting
Working Capital Management
Cost of capital
Capital Structure

Investment Decisions

- These decisions relate to how the firm‘s funds are invested in different assets so that they are able to earn the highest possible return for their investors.

Factors Affecting

- Cash flows of the project.
- The rate of return.
- The investment criteria involved.

Financing Decisions

- This is about the quantum of finance to be raised from various long-term sources.
- The main sources of funds are shareholders funds and borrowed funds.

Factors Affecting

- Cost
- Risk
- Floatation costs.
- Cash flow position of the business

Dividend Decision

- Dividend is that portion of profits, which is distributed to shareholders.
- The decision made here is how much of the profit is to be distributed to the shareholders and how much of it should be retained to meet the investment requirements.

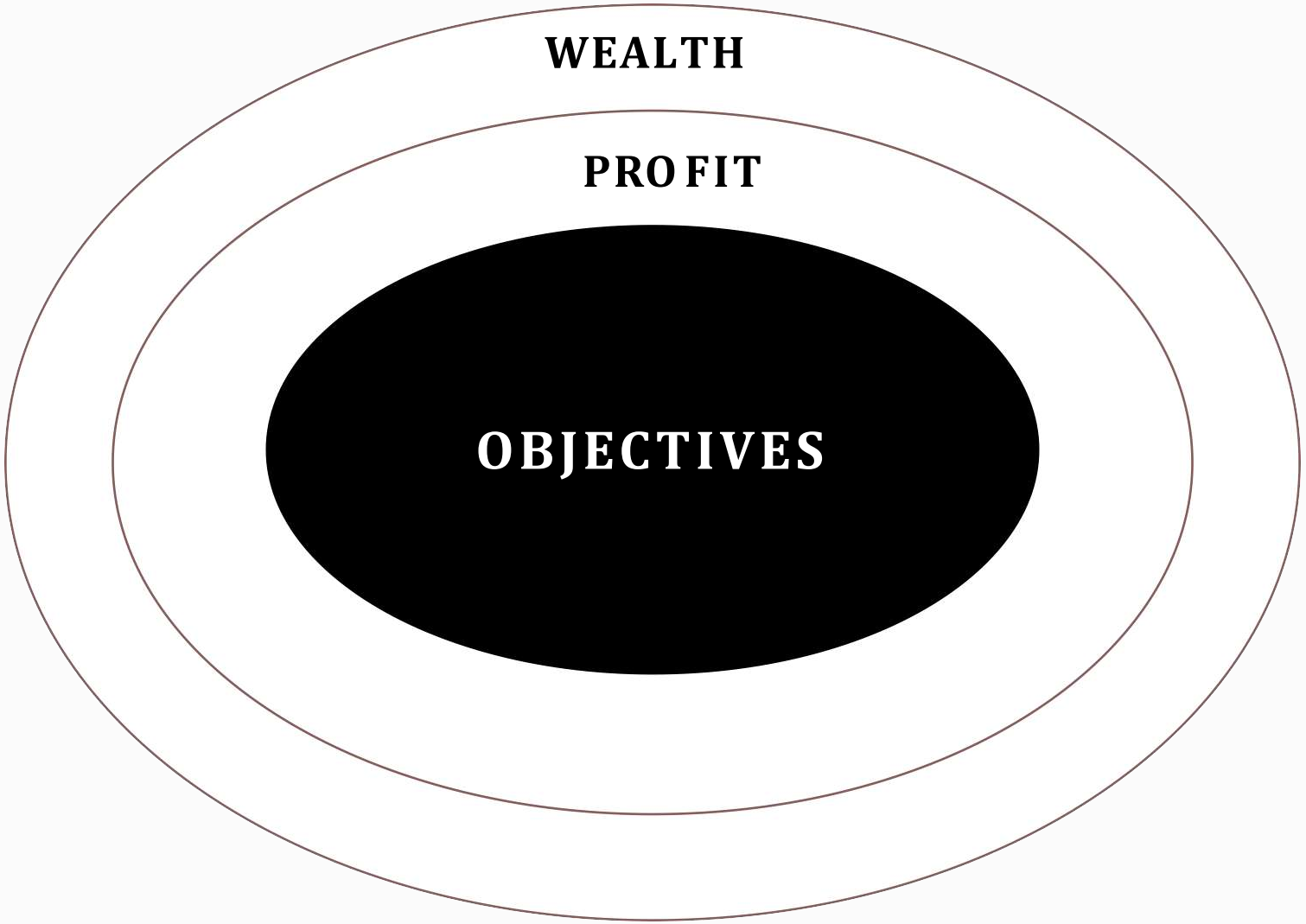
Factors Affecting

- Earnings.
- Stability of earnings.
- Stability of dividend.
- Growth oppurtunities.

Objectives

Efficient financial management requires the existence of some objectives which are as follows:

- Profit Maximisation
- Wealth Maximisation


WEALTH
PROFIT
OBJECTIVES

Profit Maximization

Main aim of any kind of economic activity is earning profit. A business concern is also functioning mainly for the purpose of earning profit. Profit is the measuring techniques to understand the business efficiency of the concern. Profit maximization is also the traditional and narrow approach, which aims at, maximizes the profit of the concern. Profit maximization consists of the following important features.

1.Profit maximization is also called as cashing per share maximization. It leads to maximize the business operation for profit maximization.

2.Ultimate aim of the business concern is earning profit, hence, it considers all the possible ways to increase the profitability of the concern.

3. Profit is the parameter of measuring the efficiency of the business concern. So it shows the entire position of the business concern.

4.Profit maximization objectives help to reduce the risk of the business.

Wealth Maximization

Wealth maximization is one of the modern approaches, which involves latest innovations and improvements in the field of the business concern. The term wealth means shareholder wealth or the wealth of the persons those who are involved in the business concern.

Wealth maximization is also known as value maximization or net present worth
maximization. This objective is an universally accepted concept in the field of business.

Finance and other disciplines

1. Financial Management and Economics
2. Financial Management and Accounting
3. Financial Management or Mathematics
4. Financial Management and Production Management
5. Financial Management and Marketing
6. Financial Management and Human Resource

1. Financial Management and Economics

Economic concepts like micro and macroeconomics are directly applied with the financial management approaches. Investment decisions, micro and macro environmental factors are closely associated with the functions of financial manager. Financial management also uses the economic equations like money value discount factor, economic order quantity etc. Financial economics is one of the emerging area, which provides immense opportunities to finance, and economical areas.

2. Financial Management and Accounting

Accounting records includes the financial information of the business concern. Hence, we can easily understand the relationship between the financial management and accounting. In the olden periods, both financial management and accounting are treated as a same discipline and then it has been merged as Management Accounting because this part is very much helpful to finance manager to take decisions. But nowaday‘s financial management and accounting discipline are separate and interrelated.

3. Financial Management or Mathematics

Modern approaches of the financial management applied large number of mathematical and statistical tools and techniques. They are also called as econometrics. Economic order quantity, discount factor, time value of money, present value of money, cost of capital, capital structure theories, dividend theories, ratio analysis and working capital analysis are used as mathematical and statistical tools and techniques in the field of financial management.

4. Financial Management and Production Management

Production management is the operational part of the business concern, which helps to multiple the money into profit. Profit of the concern depends upon the production performance. Production performance needs finance, because production department requires raw material, machinery, wages, operating expenses etc. These expenditures are decided and estimated by the financial department and the finance manager allocates the appropriate finance to production department. The financial manager must be aware of the operational process and finance required for each process of production activities.

5. Financial Management and Marketing

Produced goods are sold in the market with innovative and modern approaches. For this, the marketing department needs finance to meet their requirements. The financial manager or finance department is responsible to allocate the adequate finance to the marketing department. Hence, marketing and financial management are interrelated and depends on each other.

6. Financial Management and Human Resource

Financial management is also related with human resource department, which provides manpower to all the functional areas of the management. Financial manager should carefully evaluate the requirement of manpower to each department and allocate the finance to the human resource department as wages, salary, remuneration, commission, bonus, pension and other monetary benefits to the human resource department. Hence, financial management is directly related with human resource management.

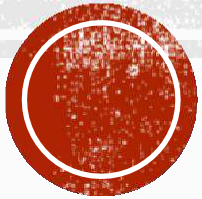
FUNCTIONS OF FINANCE MANAGER

1. Forecasting Financial Requirements
2. Acquiring Necessary Capital
3. Investment Decision
4. Cash Management
5. Interrelation with Other Departments

IMPORTANCE OF FINANCIAL MANAGEMENT

1. Financial Planning
2. Acquisition of Funds
3. Proper Use of Funds
4. Financial Decision
5. Improve Profitability
6. Increase the Value of the Firm
7. Promoting Savings

UNIT-2
ANALYSIS AND INTERPRETATION OF FINANCIAL STATEMENTS



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MEANING OF FINANCIAL STATEMENTS

- Financial statements are written records that convey the business activities and the financial performance of a company. Financial statements are often audited by government agencies, accountants, firms, etc. to ensure accuracy and for tax, financing, or investing purposes. Financial statements include:
- Balance sheet
- Income statement
- Cash flow statement.

MEANING OF FINANCIAL STATEMENT ANALYSIS

- The process of reviewing and analyzing a company‘s financial statements to make better economic decisions is called analysis of financial statements. In other words, the process of determining financial strengths and weaknesses of the entity by establishing the strategic relationship between the items of the balance sheet, profit and loss account, and other financial statements.
- The term ‗analysis‘ means the simplification of financial data by methodical classification of the data given in the financial statements, ‗interpretation‘ means, ‗explaining the meaning and significance of the data so simplified.‘ However, both‘ analysis and interpretation‘ are interlinked and complementary to each other.

DEFINITION OF FINANCIAL STATEMENT ANALYSIS

- According to Metcalf and Titard, ―Analyzing financial statements is a process of evaluating the relationship between component parts of a financial statement to obtain a better understanding of a firm‘s position and performance.‖
- In the words of Myers, ―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.‖

USERS OF FINANCIAL STATEMENT ANALYSIS

- Finance Manager
- Top Management
- Trade Payables
- Lenders
- Investors
- Trade Unions

SIGNIFICANCE OF FINANCIAL STATEMENT ANALYSIS

Finance Manager

- Analysis of financial statements helps the finance manager in:
- Assessing the operational efficiency and managerial effectiveness of the company.
- Analyzing the financial strengths and weaknesses and creditworthiness of the company.
- Analyzing the current position of financial analysis,
- Assessing the types of assets owned by a business enterprise and the liabilities which are due to the enterprise.
- Providing information about the cash position company is holding and how much debt the company has in relation to equity.
- Studying the reasonability of stock and debtors held by the company.

TOP MANAGEMENT

- Financial analysis helps the top management
- To assess whether the resources of the firm are used in the most efficient manner
- Whether the financial condition of the firm is sound
- To determine the success of the company‘s operations
- Appraising the individual‘s performance
- Evaluating the system of internal control
- To investigate the future prospects of the enterprise.

TRADE PAYABLES

- Trade payables analyze the financial statements for:
- Appraising the ability of the company to meet its short-term obligations
- Judging the probability of firm‘s continued ability to meet all its financial obligations in the future.
- Firm‘s ability to meet claims of creditors over a very short period of time.
- Evaluating the financial position and ability to pay off the concerns.

LENDERS

- Suppliers of long-term debt are concerned with the firm‘s long-term solvency and survival. They analyze the firm‘s financial statements
- To ascertain the profitability of the company over a period of time,
- For determining a company‘s ability to generate cash, to pay interest and repay the principal amount
- To assess the relationship between various sources of funds (i.e. capital structure relationships)
- To assess financial statements which contain information on past performances and interpret it as a basis for forecasting future rates of return and for assessing risk.
- For determining credit risk, deciding the terms and conditions of a loan if sanctioned, interest rate, and maturity date etc.

INVESTORS

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.

LABOUR UNIONS

- Labour unions analyze the financial statements:
- To assess whether an enterprise can increase their pay.
- To check whether an enterprise can increase productivity or raise the prices of products/ services to absorb a wage increase.

OBJECTIVES OF FINANCIAL ANALYSIS

- Reviewing the performance of a company over the past periods
- Assessing the current position & operational efficiency
- Predicting growth & profitability prospects
- Loan Decision by Financial Institutions and Banks
- To estimate the earning capacity of the business concern.
- To find out the operating performance of a company.
- To examine efficiency of various business activities.
- To find out the financial performance of a company.
- To compare the performance of a company for different periods.
- To assess the borrowing capacity of the business concern.

- To determine the long term liquidity and solvency of the business concern.
- To decide about the future prospects of the business concern.
- To know the profitability and collection policy of the business concern.
- To verify the correctness and accuracy of the decision taken by the management already.
- To compare the overall performance of the company with other similar companies.
- To examine the impact of past decision of the management on financial aspect.
- To determine the debt capacity of the firm.
- To judge the managerial ability.

LIMITATIONS OF FINANCIAL STATEMENT ANALYSIS:

- It is only a study of interim reports
- Financial analysis is based upon only monetary information and non-monetary factors are ignored.
- It does not consider changes in price levels.
- As the financial statements are prepared on the basis of a going concern, it does not give exact position. Thus accounting concepts and conventions cause a serious limitation to financial analysis.
- Changes in accounting procedure by a firm may often make financial analysis misleading.
- Analysis is only a means and not an end in itself. The analyst has to make interpretation and draw his own conclusions. Different people may interpret the same analysis in different ways.

TOOLS OF FINANCIAL ANALYSIS

- Comparative Statements
- Common Size Statements
- Trend Analysis
- Ratio Analysis
- Cash Flow Statement
- Fund Flow Statement

COMPARATIVE STATEMENTS

- Also known as _horizontal analysis, are financial statements showing financial position & profitability at different periods of time. These statements give an idea of the enterprise financial position of two or more periods. Comparison of financial statements is possible only when same accounting principles are used in preparing these statements.

COMPARATIVE BALANCE SHEET

- The progress of the company can be seen by observing the different assets and liabilities of the firm on different dates to make the comparison of balances from one date to another. To understand the comparative balance sheet, it must have two columns for the data of original balance sheets. A third column is used to show increases/decrease in figures. The fourth column gives percentages of increases or decreases.
- By comparing the balance sheets of different dates, one can observe the following aspects
- Current financial position and Liquidity position
- Long-term financial position
- Profitability of the concern

COMPARATIVE INCOME STATEMENT

- Traditionally known as trading and profit and loss A/c. Net sales, cost of goods sold, selling expenses, office expenses etc are important components of an income statement. To compare the profitability, particulars of profit & loss are compared with the corresponding figures of previous years individually. To analyze the profitability of the business, the changes in money value and percentage is determined.
- By comparing the profits of different dates, one can observe the following aspects:
- The increase/decrease in gross profit.
- The study of operational profits.
- The increase or decrease in net profit
- Study of the overall profitability of the business.

COMMON SIZE STATEMENTS

- Common size statements are also known as ‗Vertical analysis'. Financial statements, when read with absolute figures, can be misleading. Therefore, a vertical analysis of financial information is done by considering the percentage form. The balance sheet items are compared:
- to the total assets in terms of percentage by taking the total assets as 100.
- to the total liabilities in terms of percentage by taking the total liabilities as 100.
- Therefore the whole Balance Sheet is converted into percentage form. And such converted Balance Sheet is known as Common-Size Balance Sheet. Similarly profit & loss items are compared:
- to the total incomes in terms of percentage by taking the total incomes as 100.
- to the total expenses in terms of percentage by taking the total expenses as 100.
- Therefore the whole Profit & loss account is converted into percentage form. And such converted profit & loss account is known as Common-Size Profit & Loss account. As the numbers are brought to a common base, the percentage can be easily compared with the results of corresponding percentages of the previous year or of some other firms.

TREND ANALYSIS

Also known as the Pyramid Method. Studying the operational results and financial position over a series of years is trend analysis. Calculations of ratios of different items for various periods is done & then compared under this analysis. Whether the enterprise is trending upward or backward, the analysis of the ratios over a period of years is done. By observing this analysis, the sign of good or poor management is detected.

RATIO ANALYSIS

Quantitative analysis of information contained in a company's financial statements is ratio analysis. It describes the significant relationship which exists between various items of a balance sheet and a statement of profit and loss of a firm.

To assess the profitability, solvency, and efficiency of a business, management can go through the technique of ratio analysis. It is an attempt at developing a meaningful relationship between individual items (or group of items) in the balance sheet or profit and loss account.

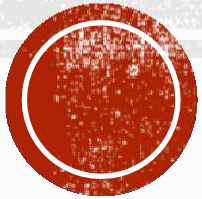
CASH FLOW ANALYSIS

- The actual movement of cash into and out of a business is cash flow analysis. The flow of cash into the business is called the cash inflow. Similarly, the flow of cash out of the firm is called cash outflow. The difference between the inflow and outflow of cash is the net cash flow.
- Cash flow statement is prepared to project the manner in which the cash has been received and has been utilized during an accounting year. It is an important analytical tool. Analysis of cash flow explains the reason for a change in cash. It helps in assessing the liquidity of the enterprise and in evaluating the operating, investment & financing decisions.

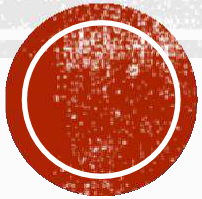
FUND FLOW STATEMENTS

- Prepared to explain the **changes** which have taken place **in the working capital** during the period under consideration.
- It is a **report on movement of funds** explaining wherefrom working capital originates and where into the same goes during an accounting period.
- Essential tool for **long-term financial analysis**.

TECHNIQUES OF FINANCIAL STATEMENT ANALYSIS IN DETAIL



COMPARATIVE, COMMON SIZE AND TREND ANALYSIS



COMPARATIVE FINANCIAL STATEMENTS

- Comparison → Compare
- How to compare?

  Matching, the similarities and dissimilarities
- What do you need for comparing?

  Two or more things, facts, persons etc
- What is the objective of comparison?

  To ascertain the difference
- Why do we compare?
  - To ascertain which is good / bad?
  - To ascertain the favorable / unfavorable changes
  - To ascertain the efficiency and effectiveness
- COMPARATIVE STATEMENTS ARE USED FOR COMPARISON

- Statements which summarise and present related accounting data for a number of years incorporating therein the changes (absolute or relative or both) in individual item
- Figures of two or more period are placed side by side to facilitate comparison
- Tool used for analysing financial statements
- Aims to study the changes in individual items when compared to the previous year
- On the basis of the changes, valid conclusions on financial condition and/or profitability, strengths and weaknesses etc., of the firm
- The changes can be shown either in absolute or relative terms or both

Comparative financial statement show:-

1. Accounting variables in their current and previous values (values for comparison)
2. Changes (increase / decrease) in the values of individual items
3. Changes (increase / decrease) in percentages of the individual items.

ADVANTAGES OF COMPARATIVE STATEMENTS

1. Facilitates for inter-firm and/or inter-period comparisons
2. Highlights upon the tends in different accounting variables relating to performance, efficiency and financial position
3. Helps to identify weaknesses in operating efficiency, financial conditions etc and to take appropriate remedial actions

DISADVANTAGES OF COMPARATIVE STATEMENTS

1. Frequent changes in accounting principles, conventions, methods policies etc., make inter-period comparison difficulty
2. Differences in age, size, lack of uniformity in accounting policies and practices between different firms make inter-firm comparison difficult

COMPARATIVE INCOME STATEMENT

Particulars	Values		Change (+ / -)	
	CY	PY	Absolute	Percentage
Net sales	120	100	+20	+20.00
Less Cost of Goods Sold	40	30	+10	+33.33
Gross Profit	80	70	+10	+14.30
Operating expenses	40	25	+15	+60.00
Operating Profit (EBIT)	40	45	-5	-11.10
Less Interest	10	10	0	0
Earning Before Tax	30	35	-5	-14.30
Less Tax	12	15	+3	+20.00
Earnings After Tax	18	20	-2	-10.00
Less Preference Share Dividend	8	8	0	0
Earnings available to Equity Share Holders	10	12	-2	-16.67

COMMON-SIZE FINANCIAL STATEMENTS

- Financial statements in which items reported are converted into percentage to some common base.
- In income statement total sales will be taken as the base for conversion and all items in the income statement are converted and expressed as percentage of sales.
- In balance sheet, total of assets or liabilities will be taken as the common base and all items in the balance sheet are expressed as a percentage of total assets or liabilities.

COMMONSIZE INCOME STATEMENT				
Particulars	2015		2016	
	Rupees	%	Rupees	%
Net sales	7,00,000	100.00	8,00,000	100.00
Less cost of goods sold	5,95,000	85.00	6,15,000	76.87
Gross profit	1,05,000	15.00	1,85,000	23.13
Operating expenses	35,700	5.10	36,500	4.56
Operating income	69,300	9.90	1,48,500	18.56
Add other Incomes	1,200	0.17	8,050	1.00
Total income (EBIT)	68,750	9.82	1,54,610	19.56
Less interest	8,750	1.25	8,750	1.09
Profit Before Tax	60,000	8.50	145860	18.23
Less Tax	30,000	4.25	45,000	5.62
Profit after tax	30,000	4.25	1,00,860	12.616

COMMON-SIZE BALANCE SHEET

ASSETS	X LTD		Y LTD	
	Rupees	%	Rupees	%
Current Assets :-				
Cash in hand	8,000	1.83	10,000	1.25
Prepaid expenses	1,000	0.23	2,000	0.25
Debtors	4,000	0.91	8,000	0.99
Stock	10,000	2.28	25,000	3.08
Temporary investment	1,000	0.23	40,000	4.95
Total Current Assets	24,000	5.48	85,000	10.52
Fixed Assets :-				
Land and building	3,30,000	76.26	6,00,000	74.62
Plant and machinery	80,000	18.26	1,23,000	15.22
Total Fixed Assets	4,14,000	94.52	7,23,000	89.48
TOTAL ASSETS	4,38,000	100.00	8,08,000	100.00

COMMON-SIZE BALANCE SHEET				
Liabilities	X LTD		Y LTD	
	Rupees	%	Rupees	%
Current Liabilities:-				
Sundry creditors	14,000	3.20	4000	0.49
Outstanding expenses	15,000	3.44	6,000	0.74
Proposed dividend	10,000	2.28	90,000	11.15
Total current liabilities	39,000	8.92	1,00,000	12.38
Long-term Liabilities :-				
Loans	15,000	3.44	30,000	3.71
Debentures	1,00,000	22.81	1,00,000	12.38
Total long term liabilities	1,15,000	26.25	1,30,000	16.09
Capital and Reserves :-				
Share capital	2,70,000	61.64	5,60,000	69.31
Reserves	14,000	3.20	18,000	2.23
Total capital and reserves	2,84,000	64.84	5,78,000	71.53
Total Liabilities	4,38,000	100.00	8,08,000	100.00

TREND ANALYSIS

- Another tool used for analysis and interpretation
- Trend means ―tendency‖
- Trend analysis means ―review and appraisal of tendency in accounting variables‖
- Helps in analyzing long term trend of various business factors – help in budgeting and forecasting
- Helps in ascertaining favorable or unfavorable trend in business
- Trend analysis can be performed through :- (a). Trend ratios and (b). Graphs

TREND RATIOS OR TREND PERCENTAGES

- Ratio expresses mathematical relationship between two figures. Expression of one figure in term of another one
- Trend ratios / percentages refer to the expression of arithmetical relationship which each item of several years bears to the same item of _base year'.
- For calculating trend ratios / percentages one year is taken as the —base‖ and then ratios or percentages are calculated taking the figure of the base year as —base‖.

$$Trend\ Prcentage = \frac{P_1}{P_0} x100$$

- Where

  P_1 = Values of C urrentYear

  P_0 = Values of Base Year

RATIO ANALYSIS

MEANING

- Mathematical relationship between two items
- Expressed in quantitative form

- Defined as:

—relationships expressed in quantitative terms, between figures which have cause and effect relationships or which are connected with each other in some manner or the other||

STEPS

- Selection of relevant information
- Comparison of calculated ratio
- Interpretation and reporting

ADVANTAGES

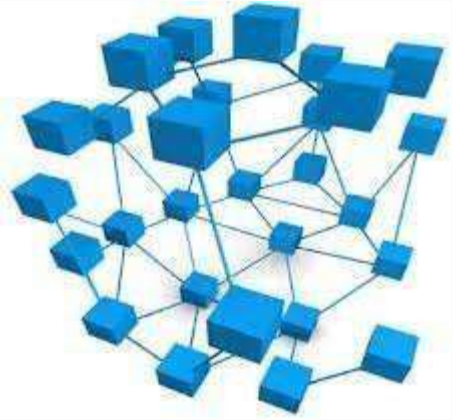
1. Forecasting
2. Managerial control
3. Facilitates communication
4. Measuring efficiency
5. Inter firm comparisons

LIMITATIONS

1. Practical knowledge
2. Inter-relationships
3. Accuracy of financial information
4. Consistency of preparation of financial statements
5. Time log

CLASSIFICATION

- Classification of ratios by statements
- Classification by users
- Classification based on relative importance.
- Classification of ratios by purpose/function.



CLASSIFICATION OF RATIO BY STATEMENTS

BLANCE SHEET RATIOS

- LIQUID RATIO
- C URRENT RATIO
- PROPRIETARY RATIO
- DEBT EQUITY RATIO
- FIXED ASSETS RATIO
- CAPITAL GEARING RATIO

PROFIT & LOSS A/C RATIOS

- GROSS PROFIT RATIO
- OPERATING RATIO
- OPERATING PROFIT RATIO
- EXPENSE RATIOS
- NET PROFIT RATIO

B/S AND P&LA/C ratios

- Return on investment
- Return on shareholder‘s fund
- Stock turnover
- Debtors turnover
- C reditors turnover
- Fixed assets turnover
- Earnings per share

CLASSIFICATION BY USERS

Ratios for management

- Operating ratio
- Return on investment
- Stock turnover
- Debtors turnover
- Debt equity
- Fixed assets turnover
- Creditors turnover
- Net profit ratio
- Short &long term liquidity
- Working capital turnover
- Net profit ratio
- Gross profit ratio

Ratios for creditors

- Current ratio
- Solvency ratio
- Debt equity ratio
- Creditors turnover
- Fixed assets ratio
- Assets cover
- Interest cover

Ratios for shareholders

- Return on shareholder's fun
- Payout ratio
- Capital gearing
- Dividends cover
- Dividend yield

CLASSIFICATION BY RELATIVE IMPORTANCE

Primary ratios	Secondary performance ratio	Secondary credit ratio	Growth ratio
• Return on capital employed • Assets turnover • Profit ratios	• Working capital turnover • Stock turnover ratio • Current assets to fixed assets • Stocks to fixed asssets • Fixed assets to total assets	• Creditors turnover • Debtors turnover • Liquid ratio • Current ratio • Average collection period	• Growth rate in sales • Growth rate in net assets

CLASSIFICATION OF RATIOS BY PURPOSE

Financial ratio/ solvency ratio

Profitability ratio	Turnover ratio	Short term solvency ratio	Long term solvency ratio
• Return on investment • Net profit ratio • Gross profit ratio • Expense ratio • Operating profit ratio	• Stock turnover • Debtors turnover • Creditors turnover • Working capital turnover • Fixed assets turnover	• Current ratio • Liquidty ratio • Cash position ratio	• Proprietory ratio • Debt equity ratio • Fixed assets ratio • Capital gearing ratio

PROFITABILITY RATIO

1. Return on investment (or) overall profitability ratio

$$R.O.I = \frac{\text{operating profit}}{\text{capital employed}} * 100$$

2.Gross profit ratio

$$\text{Gross profit ratio} = \frac{\text{gross profit}}{\text{net sales}} * 100$$

3. OPERATING RATIO

$$\frac{\text{cost of sales + operating expenses}}{\text{net sales}} * 100$$

- 4.Operating profit ratio

$$\text{Operating profit ratio} = \frac{\text{operating profit}}{\text{sales}} * 100$$

5. Expenses ratio

1. Administrative expenses ratio:

$$\frac{\text{Admistrative expenses}}{\text{net sales}} * 100$$

2. Selling and distribution expenses ratio:

$$\frac{\text{selling and distribution expenses}}{\text{net sales}} * 100$$

3. Financial expenses ratio:

$$\frac{\text{financial expenses}}{\text{net sales}} * 100$$

6. Net profit ratio

$$\text{net profit ratio} = \frac{\text{net profit after tax}}{\text{net sales}} * 100$$

7. Earnings per share (EPS)

$$\text{E.P.S} = \frac{\text{net profit after tax and preference dividend}}{\text{no. of equity shares}}$$

8.Price earnings ratio (P.E.R)

$$\text{P.E.R} = \frac{\text{market price per equity share}}{\text{earnings per equity share}}$$

9.

$$\text{Pay out ratio} = \frac{\text{dividend per equity share}}{\text{earnings per equity share}} * 100$$

$$\text{Retained earning ratio} = \frac{\text{retained earning per equity share}}{\text{earning per equity share}} * 100$$

10. **Interest cover or fixed charges over**

Interest or fixed charges cover

$$= \frac{\text{profit before interest and tax}}{\text{fixed interest charges}}$$

11. **Dividend yield ratio**

$$\text{Dividend yield} = \frac{\text{dividend per share}}{\text{market price per share}} * 100$$

TURNOVER RATIOS OR ACTIVITY RATIOS

1. Inventory turnover ratio:

stock turnover ratio= cost of goods sold

———————-

average inventory

2. Inventory turnover period:

stock turnover period= days/months in a year

———————————-

inventory turnover ratio

3. Debtor’s turnover ratio:

receivable's turnover= net credit sales

———————

average receivables

4. creditor’s turnover ratio:

accounts payable turnover= net credit purchases

———————

average accounts payable

5. Average payment period:

creditor’s payment period= days/month in a year

———————

creditor’s turnover ratio

6. WORKING CAPITAL TURNOVER RATIO

$$= \frac{\text{COST OF SALES/SALE}}{\text{net working capital}}$$

7.Fixed turnover ratio

$$= \frac{\text{cost of goods sold (or) sales}}{\text{net fixed assets}}$$

9. Capital turnover ratio:

$$\text{capital turnover ratio} = \frac{\text{sales (or) cost of sales}}{\text{capital employed}}$$

SOLVENCY OR FINANCIAL RATIOS

Short term solvency ratios

1. Current ratio = current assets / current liabilities

2. Liquid ratio = liquid or quick assets / current liabilities

3. Cash position ratio

= cash & bank balance + marketable security / current liabilities

Long term solvency ratio

1. **Fixed assets ratio**= fixed assets
   ---
   long term funds

2. **Debt equity ratio**= total long term debt
   ---
   shareholder's fund (or)

   = external equities
   ---
   internal equities

3 **Proprietary ratio.** = shareholder's fund
   ---
   total tangible assets

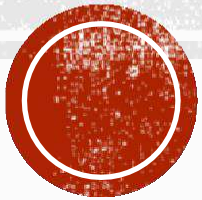
4. Capital gearing ratio:

$$= \frac{\text{long term loss + debentured + pref. capital}}{\text{equity shareholder's fund}}$$

Overall solvency ratio

$$\text{Solvency ratio} = \frac{\text{total debt}}{\text{total tangible assets}}$$

CASH FLOW AND FUND FLOW STATEMENT



CASH FLOW STATEMENTS

- Concentrates on transactions that have a **direct impact on cash.**
- Deals with **inflow and outflow of cash** between two Balance Sheet dates.
- An essential tool of **short-term financial analysis.**

IMPORTANCE

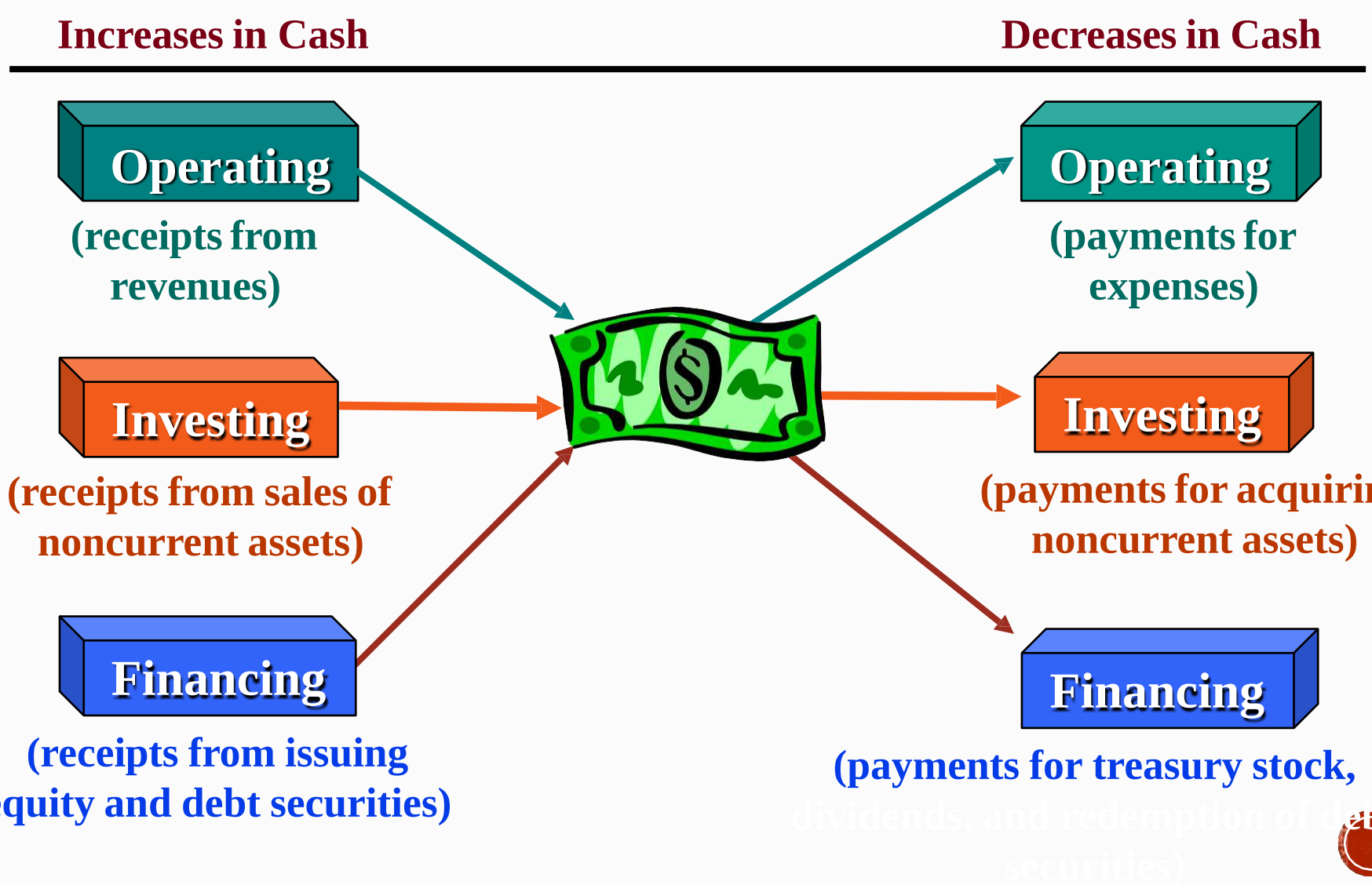
1. Facilitates to **prepare sound financial policies**.
2. Helps to **evaluate the current cash position**.
3. Projected cash flow statements helps to know the **future cash position** of a concern so as to enable a firm to plan and coordinate its financial operations properly.
4. It helps in **taking loan from banks** and other financial institutions. The repayment capacity of the firm can be understood by going through the cash flow statements.
5. Helps the management in taking **short-term financial decisions**.
6. Statement **explains the causes for poor cash position** in spite of substantial profits in a firm by throwing light on various applications of cash made by the firm.

Reporting Cash Flows

THE STATEMENT OF CASH FLOWS REPORTS CASH FLOWS BY THREE TYPES OF ACTIVITIES:

1. ***Cash flows from operating activities*** – transactions that affect net income.
2. ***Cash flows from investing activities*** – transactions that affect noncurrent assets.
3. ***Cash flows from financing activities*** – transactions that affect equity and debt of the entity.

Reporting Cash Flows



Cash Flows from Operating Activities

Typical cash inflows

What are some of the typical cash ***inflows*** from operating activities?`

- **Sales of goods and services**
- **Interest revenue**
- **Dividend revenue**

Typical cash outflows

What are some of the typical cash ***outflows*** from operating activities?

- **Merchandise purchases**
- **Payments of wages and other expenses**
- **Tax payments**

Cash Flows from Investing Activities

Typical cash inflows

What are some of the typical cash ***inflows*** from investing activities?

- **Sales of fixed assets**
- **Sale of long-term investments**

Typical cash outflows

What are some of the typical cash ***outflows*** from investing activities?

- **Purchase of fixed assets**
- **Purchase of long-term investments**

Cash Flows from Financing Activities

Typical cash inflows

What are some of the typical cash ***inflows*** from financing activities?

- **Issuing bonds and long-term notes payable**
- **Issuing preferred and common stock**

Typical cash outflows

What are some of the typical cash ***outflows*** from financing activities?

- **Paying cash dividends**
- **Repaying debt**
- **Acquiring treasury stock**

Noncash Investing and Financing Activities

- Issuing bonds to acquire land
- Issuing common stock for convertible preferred stock
- Issuing a long-term note to acquire equipment
- Issuing a stock dividend

Format for Cash Flow Statement

Cash flows from operating activities		
(List of individual items)	XX	
Net cash provided (used) by operating activities		XXX
Cash flows from investing activities		
(List of individual inflows and outflows)	XX	
Net cash provided (used) by investing activities		XXX
Cash flows from financing activities		
(List of individual inflows and outflows)	XX	
Net cash provided (used) by financing activities		XXX
Net increase (decrease) in cash		XXX
Cash at beginning of period		XXX
Cash at end of period		XXX
Noncash investing and financing activities		
(List of individual noncash transactions)		XXX

LIMITATIONS

1. **Only reveals the inflow and outflow of cash.** The cash balance disclosed by this statement may not depict the true liquid position.
2. It **cannot be equated with the income statement.** Income statement takes into account both cash and non-cash items. Hence cash fund does not mean net income of the business.
3. Working capital being a wider concept of funds, a fund flow statement presents a more complete picture than cash flow. Hence, **cash flow statement gives only a narrow picture.**

FUND FLOW STATEMENTS

- Prepared to explain the **changes** which have taken place **in the working capital** during the period under consideration.
- It is a **report on movement of funds** explaining wherefrom working capital originates and where into the same goes during an accounting period.
- Essential tool for **long-term financial analysis**.

Cont'd..,

- Flow of Fund is identified by the means of inward or outward movement of Current Assets and Current Liabilities.
- When Current Assets increase or Current Liabilities decrease—Inflows of Fund.

IMPORTANCE

1. Determines the **financial consequences** of business operations. It shows how the funds were obtained and used in the past. Financial manager can take corrective actions.
2. The management can **formulate its financial policies-** dividend, reserve etc.. on the basis of this statement.
3. Serves as a **control device**, when comparing with budgeted figures. The financial manager can take remedial steps, if there is any deviation.
4. Points out **sound and weak financial position** of the enterprise.
5. Points out the **causes for changes in working capital**.
6. Enables the bankers, creditors or financial institutions in **assessing the degree of risk** involved in granting credit to the business.

7. Management can **rearrange the firm's financing more effectively** on the basis of the statement.
8. Various uses of funds can be known and after comparing them with the uses of previous years, **improvement or downfall in the firm can be assessed.**
9. The statement compared with the budget concerned will show to **what extent the resources of the firms were used** according to plan and what extent the utilization was unplanned.
10. It tells whether sources of funds are **increasing or decreasing or constant.**

Statement or Schedule of Changes in Working Capital.

Item	Previous Year	Current Year	Effect on Increase Rs.	Working captial Decrease Rs.
(A) Current Assets				
Cash at bank				
Cash in hand				
Stock in trade				
Debtors				
Bills receivable				
Advance payment				
Short term investment				
Prepaid expense				
Accrued income				
Total (A)				
(B) Current Liabilities				
(1) Short term loans				
(2) Bank overdraft				
(3) Creditors				
(4) Bills payable				
(5) Outstanding expenses				
(6) Unclaim dividend				
Total (B)				
Net Working Capital (A-B)				
Increase / Decrease in Working Capital				
Total				

Format of Fund Flow Statement

(As on……..)

Sources of Funds	Amount	Application of Funds	Amount
Issue of share capital	…….	Redemption of pref. share	……..
Issue of debenture	…….	Redemption of debenture	……..
Raising of long term loan	…….	Payment of long term loan	……..
Sales of fixed assets	…….	Purchase of fixed assets	……..
Interest received	…….	Interest paid	……..
Dividend received	…….	Dividend paid	……..
Refund of Taxes	…….	Payment of Taxes	……..
Decrease in working capital	…….	Increase in working capital	……..
Fund from operation	…….		
TOTAL	……..	TOTAL	……..

Calculation of Fund from operation

It can be calculated by preparing Profit & loss Adjustment a\c

Particular	Amount	Particular	Amount
Depreciation Loss on sale of fixed assets Under writing commissions Discount on issue of shares & debentures Preliminary expense written off Deferred revenue expenses Goodwill written off Patent or trademark Provision for taxes (If treated non current)		Profit or gain on sale of fixed asset Dividend received Interest received of investment Profit on revaluation of asset **Fund from operation**	

LIMITATIONS

- **Lacks originality** because it is only rearrangement of data appearing in accounts books.
- **Indicates only the past position** and not future.
- **Indicates fund flow only in a summary form** and does not show various changes which take place continuously.
- When **both the aspects** of a transaction are **current**, they are **not considered.**
- When **both the aspects** of a transaction are **non-current**, even then **they are not included** in this statement.
- **Not an ideal tool** for financial analysis.

CASH FLOW STATEMENTS	FUND FLOW STATEMENTS
Shows causes for **changes in cash.**	Shows causes of **changes in net working capital.**
Starts with **opening and closing balances of cash**.	There are **no opening or closing balances.**
Deals **only with cash**.	Deals with **all components of working capital.**
Useful for **short-term financing.**	Useful for **long-term financing.**
Based on **cash basis** of accounting.	Based on **accrual basis** of accounting.
Improvement in cash flow can be taken as an indicator of **improved working capital position**.	Sound fund position may **not necessarily** mean **sound cash position**.

UNIT – 3
WORKING CAPITAL MANAGEMENT

By:

Prof. P. S. Shinde

(Dnyansagar Institute of Management and Research, Balewadi, Pune.)

WORKING CAPITAL

- Capital required by business can be categorized as-
  (i) Fixed Capital (ii) Working Capital

- Fixed capital is required for the purchase of fixed or long term assets (machinery, land & building)

- Working capital is required to meet short term or current obligation (raw material, wages)& includes all current assets(cash, marketable securities, debtors)

- Also called as revolving capital or circulating capital or short term capital

WORKING CAPITAL MANAGEMENT

- It involves the relationship between a firm's short-term assets & its short-term liabilities.

- Goal is to ensure that a firm is able to continue its operations & that it has sufficient ability to satisfy both maturing short-term debt & upcoming operational expenses.

- The management of working capital involves managing inventories, accounts receivable & payable & cash.

CONCEPTS OF WORKING CAPITAL

Balance sheet concept

- Two interpretations : Gross working capital
  Net working capital

- Net Working Capital
  Current Assets - Current Liabilities.
- Can be negative and positive

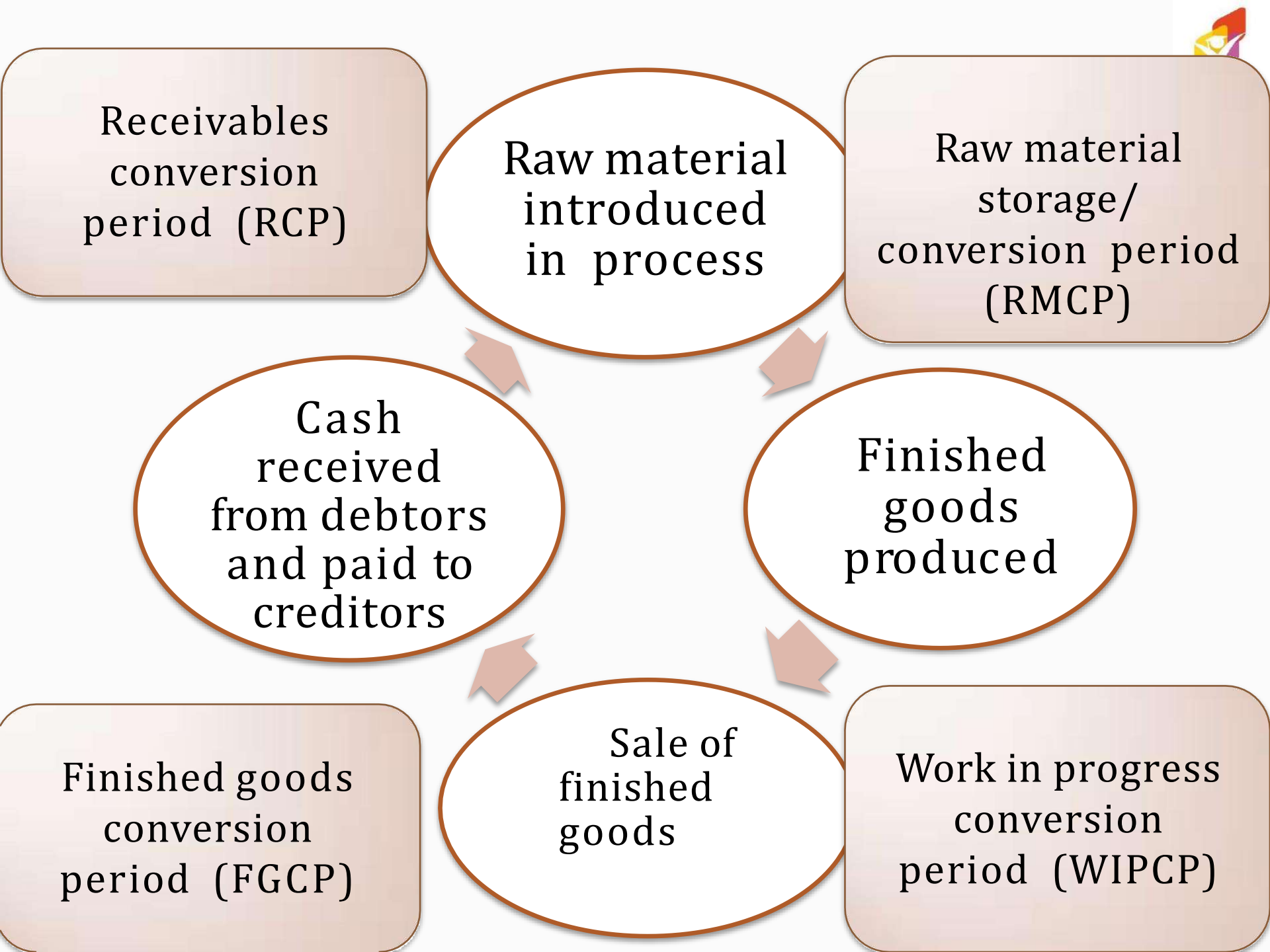
- Gross Working Capital
  Capital invested in the total current assets of the enterprise.

OPERATING CYCLE & CIRCULAR FLOW CONCEPT

- In the words of Genstenberg ,

—Revolving or circulating capital means current assets of a company that are changed in the ordinary course of business from one form to another, as for example, from cash to inventories, inventories to receivables & receivables into cash‖.

- Cycle starts with the purchase of raw material & other resources & ends with the realization of cash from the sales of finished goods.


Receivables conversion period (RCP)
Raw material introduced in process
Raw material storage/ conversion period (RMCP)
Cash received from debtors and paid to creditors
Finished goods produced
Finished goods conversion period (FGCP)
Sale of finished goods
Work in progress conversion period (WIPCP)

Speed/ time duration required to complete one cycles determine the requirements of working capital.

Longer the period, longer the requirement.

Gross operating cycle: RMCP+WIPCP+FGCP+RCP

PRINCIPLE OF WC MANAGEMENT

PRINCIPLE OF RISK VARIATIONS:

Principle of risk variation says that there exists a definite inverse relation between the degree of risk and the rate of return.

PRINCIPLE OF COST OF CAPITAL

- Principle of cost of capital says that the cost of capital moves inversely with the degree of risk. There should be a proper balance between these.

PRINCIPLE OF EQUITY POSITION

Principle of equity position says that the amount of working capital invested should be justified by the firm‘s equity position.

PRINCIPLE OF MATURITY OF PAYMENT

Principle of maturity of payment says that a firm should make every effort to relate maturity of payment to its flow of internally generated funds.

IMPORTANCE OF WORKING CAPITAL

- ***Strengthen The Solvency:***

- to operate the business smoothly without any financial problem for making the payment of short-term liabilities.

-maintaining solvency of the business by providing uninterrupted flow of production

- ***Enhance Goodwill:***

-to make prompt payments

- ***Easy Obtaining Loan:*** A firm having

-adequate working capital

-high solvency

-good credit rating

- ***Regular Supply Of Raw Material***
  -quick payment

- ***Smooth Business Operation***
  -it maintains the firm in well condition
  -any day to day financial requirement can be met without any shortage of fund

- ***Ability To Face Crisis***
  Adequate working capital enables a firm to face business crisis in emergencies such as depression

NEED FOR WORKING CAPITAL

The need for Working Capital arises due to the time gap between production & realization of cash from sales

-purchase of raw materials & production
-sales & realization of cash
-Purchase of components & spares
-Wages & salaries
- day to day expenses & overhead costs
-meet the selling costs
-provide credit facilities
-maintain the inventories of R-M, W-I-P, Stores, Spares & Finished stock

FACTORS DETERMINING THE WORKING CAPITAL REQUIREMENT

- Nature of Business
- Scale of Operations
- Business Cycles
- Seasonal Factors
- Level of Competition
- Inflation

Production Cycle

Credit Allowed

Credit Availed

Operating Efficiency

Availability of Raw Material

Growth Prospects

SOURCES OF WORKING CAPITAL

Financing of Long term Working Capital:

- Shares
- Debentures
- Public Deposits
- Ploughing Back of Profits
- Loans from Financial Institutions

FINANCING OF SHORT-TERM WORKING CAPITAL

Indigenous Bankers

Trade Credit

Installment Credit

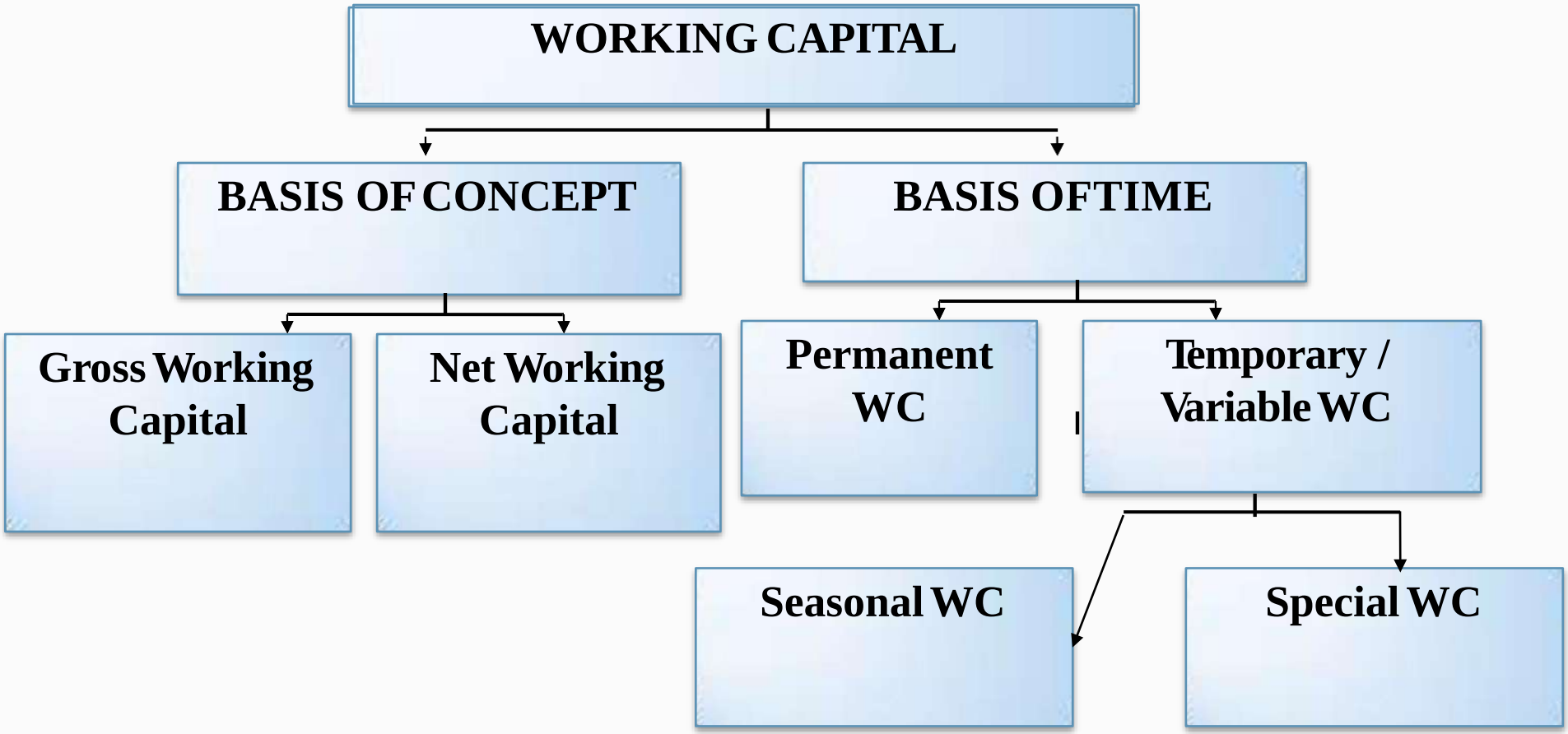
Advances

Commercial Paper

WC finance By Commercial Banks

- Loans
- Cash Credit
- Overdrafts

TYPES OF WORKING CAPITAL



DIFFERENCE BETWEEN NETWORKING CAPITAL AND GROSS WORKING CAPITAL

Net Working Capital	Gross Working Capital
1. Qualitative in nature.	1. Quantitative in nature.
2. Indicates the firm's ability to meet its operating expenses and current liability.	2.Indicates total amount available for financing the current assets.
3. Expressed as current asset minus current liability.	3. It indicating the total sum of current assets.
4. Suitable for sole trader & partnership firms.	4. Suitable for companies.
5. Useful to find out true the financial position of a company.	5. It cannot reveal the true financial position of a company.

PERMANENT OR REGULAR WC

- It is the minimum level of current assets which is continuously required by a firm for carrying out its business activities & that cannot be converted into cash in normal course of business.

- Permanent working capital is either constant or it increase with the size of the business or its scale of operations.

Characteristics:

- Needed for longer period of time.
- Constantly changes in the business from one asset to another.
- Grows the size or volume of business operation.

TEMPORARY OR VARIABLE WC

- Any amount over & above the permanent level of working capital is temporary working capital.
- Keeps on fluctuating from time to time as per the changes in production & sales activities.

Characteristics:

- It is anextra working capitalneeded to changing production & sales activities.
- It is created to meet liquidity requirements.
- It fluctuates according to the level of operations.
- It is needed for shorter period.

SEASONAL WORKING CAPITAL

- The capital required to meet the seasonal demands of the enterprise
- For example, a manufacture of woolen textiles, refrigerators or coolers may need extra funds to carry on production and to accumulate stock before the sales operations.
- Being of short-term nature, has to be financed from short- term sources like bank loan etc.

SPECIFIC WORKING CAPITAL

- Specific working capital is that part of working capital which is required to meet unforeseen contingencies like slump, strike, flood, war, launching of extensive marketing campaign, purchase of goods for stock in view of future increase in price etc.

METHODS OF ESTIMATING WC

Percentage of sales method

- The Working capital is directly related to the percentage value of sales.

  - Example, If sales of firm is Rs.10,00,000 ; the WC is 20% of sales, then WC = Rs. 2,00,000.

REGRESSION ANALYSIS METHOD

- Forecast the WC based upon statistical technique of estimating the unknown value of dependent variable from the known value of an independent variable.

$$y = a + b\,x$$

Where,

y = Working Capital <D.V>

a = Intercept of the least square

b = Slope of the regression line

x = Sales <I.V.>

CASH FORECASTING METHOD

- It involves forecasting of cash receipts and disbursements during a future period of time.

- It includes all the possible sources of cash & the channels in which payments are to be made.

OPERATING CYCLE METHOD

- This method of estimating W C requirements based on operating cycle .
- O C starts with the purchase of RM and other resources and end with the realization of cash.
- Working Capital Required

  = Cost of goods sold X Operating cycle

  365 or 360 days

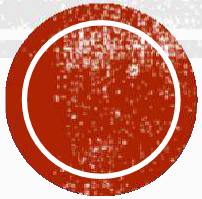
  + Desired cash balance

PROJECTED BALANCE SHEET METHOD

- Under this method, assets and liabilities are forecasted.
- The excess of estimated total current assets over estimated current liabilities, as shown in projected balance sheet, is computed to indicate the estimated amount of WC required.

UNIT - 4

CAPITAL STRUCTURE



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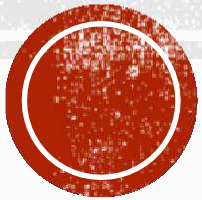
PART – 1
CAPITAL STRUCTURE



INTRODUCTION

You may hear corporate officers, professional investors, and investment analysts discuss a company's capital structure. The concept is extremely important because it can influence the return a company earns for its shareholders and whether or not a firm survives in a recession or depression.

MEANING

The term ‗structure' means the arrangement of the various parts. So capital structure means the arrangement of capital from different sources so that the long-term funds needed for the business are raised.

Thus, capital structure refers to the proportions or combinations of equity share capital, preference share capital, debentures, long-term loans, retained earnings and other long-term sources of funds in the total amount of capital which a firm should raise to run its business.

DEFINITION

- —Capital structure of a company refers to the make-up of its capitalisation and it includes all long-term capital resources viz., loans, reserves, shares and bonds.‖—Gerstenberg.

- —Capital structure is the combination of debt and equity securities that comprise a firm‘s financing of its assets.‖—John J. Hampton.

- —Capital structure refers to the mix of long-term sources of funds, such as, debentures, long-term debts, preference share capital and equity share capital including reserves and surplus.‖—I. M. Pandey.

WHAT DOES A COMPANY'S CAPITAL STRUCTURE INCLUDES

- Capital Structure = Long term Debt + Prefered Stock + Net Worth

OR

- Capital Structure = Total Assets – Current Liabilities

WHAT IS CAPITALISATION AND FINANCIAL STRUCTURE?

DO THESE TERMS MEAN SAME AS CAPITAL STRUCTURE?

- Capitalisation is a quantatitative aspect of the financial planning of an enterprise, where as Capital Structure is a qualitative aspect.
- Capitalisation refers to the total amount of securities issued by a company, while Capital structure refers to the kinds of securities and proportionate amounts that make up capitalization.
- Financial Structure refers to all the financial resources marshalled by the firm, short as well as long-term , and all forms of debt as well as equity.

—Thus, generally it is composed of a specified percentage of short-term debt, long-term debt & shareholders Funds.‖

EXAMPLE:

1. Compute Capitalisation, Capital structure & Financial structure from the following.

LIABILITIES	Rs
Equity share capital	10,00,000
Preference share capital	5,00,000
Long-term loans & Debentures	2,00,000
Retained Earnings	6,00,000
Capital surplus	50,000
Current Liabilities	1,50,000

CAPITALISATION:

Equity share capital	**10,00,000**
Preference share capital	5,00,000
Long-term loans & Debentures	2,00,000
CAPITALISATION →	17,00,000

CAPITAL STRUCTURE:

Equity share capital	**10,00,000**
Preference share capital	5,00,000
Long-term loans & Debentures	2,00,000
Retained Earnings	6,00,000
Capital Surplus	50,000
CAPITAL STRUCTURE →	23,50,000

FINANCIAL STRUCTURE:

Equity share capital	**10,00,000**
Preference share capital	5,00,000
Long-term loans & Debentures	2,00,000
Retained Earnings	6,00,000
Capital Surplus	50,000
Current liabilities	1,50,000
FINANCIAL STRUCTURE→	25,00,000

OPTIMUM CAPITAL STRUCTURE:

OPTIMUM CAPITAL STRUCTURE IS THE CAPITAL STRUCTURE AT WHICH THE **MARKET VALUE PER SHARE IS MAXIMUM** AND THE **COST OF CAPITAL IS MINIMUM.**

Why is it important?

- Enables one to —Optimise‖ the value of a firm by finding the —best mix‖ for the amounts of debts and equity on the balance sheet.
- Provides a signal that the firm is following proper rules of corporate finance to —improve‖ its balance sheet. This signal is central to valuations provided by market investers and analysts.

FEATURES OF A GOOD CAPITAL STRUCTURE

- **Profitability**- It should ensure most profits are earned. It should offer the least cost of financing with maximum returns.
- **Solvency**- The structure should not lead the company to a point it risks being insolvent. Too much debt threatens a company's solvency so any debt taken should be manageable.
- **Flexibility**- The capital structure should be one that can be easily changed to meet new market demands.
- **Control**– The structure should not give away control of the company. So, caution should be taken not to give too much away that owners lose their controlling stake.

PATTERNS/FORMS OF CAPITAL STRUCTURE

- Capital structure with equity shares only
- Capital structure with equity and preference shares
- Capital structure with equity shares and debentures
- Capital structure with equity, preference shares and debentures

IMPORTANCE OF CAPITAL STRUCTURE:

- Increases the value of the firm
- Proper utilisation of available Funds
- Maximisation of Returns
- Minimisation of Cost of Capital
- Solvency or liquidity position
- Flexibility
- Undisturbed Controlling
- Minimisation of Financial Risk

FACTORS AFFECTING CAPITAL STRUCTURE

- Nature of Business
- Size of a Company
- Period of Finance
- Control
- Environment of Capital Market
- Nature & type of the investors
- Regulatory framework
- Floatation Costs
- Legal Provisions
- Trading on Equity

CONTINUE....

- Risk
- Growth Rate
- Tax Considerations
- Cost of Capital
- Profitability
- Financing Purpose
- Capital Structure of other Companies

- **Nature of business -** It has great influence in the capital structure of the business, companies having stable and certain earnings prefer debentures or preference shares and companies having no assured income depends on internal resources.
- **Size of a company -** Small size business firm's capital structure generally consists of loans from banks and retained profits. While on the other hand, big companies having goodwill, stability and an established profit can easily go for issuance of shares and debentures as well as loans and borrowings from financial institutions.
- **Period of finance -** The period for which finance is needed also influences the capital structure. When funds are needed for long-term (say 10 years), it should be raised by issuing debentures or preference shares. Funds should be raised by the issue of equity shares when it is needed permanently.
- **Control -** The consideration of retaining control of the business is an important factor in capital structure decisions. If the existing equity shareholders do not like to dilute the control, they may prefer debt capital to equity capital, as former has no voting rights.
- **Environment of Capital Market** - Capital markets are of development, boom, and depression. In times of boom, it would be easier for the firm to raise equity, but in times of recession, the equity investors will not show much of interest in investing. Then the firm is to rely in raising debt.

- **Nature & Type of the investors -** Some investors have an abundance of money, Whereas some others do not have much money. Hence, the form of demand by various investors differs quite substantially. Generally, bold investors make investments in equity shares, whereas cautions investors having less capital like to invest in preference shares and debentures. Some investors have shaky nature also. For them, the issue of redeemable preference shares and convertible debentures are most suited.
- **Regulatory framework -** Capital structure also influenced by government rules. For example, banking companies can raise money by issuing share capital alone, no other security. Similarly, it is compulsory to maintain the debt-equity ratio given to other companies while raising funds. Various ideal debt-equity ratios like 2: 1; 4: 1; 6: 1 has been set for different industries. The public issue of shares and debentures is to made under SEBI guidelines.
- **Floatation Costs -** The cost of Floatations called expenses which are spending while issuing securities. These include the commission of underwriters, brokerage, stationery expenses, etc. Generally, issuing debt capital's cost is less than share capital. It attracts the company towards debt capital.
- **Legal Provisions** - Legal provisions in raising capital will also play a significant role in planning capital structure. Raising of equity capital is more complicated than raising debt.

- **Trading on equity -** A company raises debt at low cost with a view to enhance the earnings of the equity shareholders. The cost of debt is lower due to tax advantage. A fixed rate of return is payable on debt funds. Any excess earnings over cost of debt will be added up to the equity shareholders.

Capital structure decisions should always aim at having debt component in total component in order to increase the earnings available for equity shareholders.

- **Risk -** In capital structure decisions, two elements of risk viz.,

  (i) Business risk and

  (ii) Financial risk are considered.

A firm with high business risk prefer to have low levels of debt, since the volatility of its earnings is more. A firm with low level of business risk can have higher debt component in capital structure, since the risk of variations in expected earnings is lower.

- **Growth Rate** - The growing companies will require more and more funds for its expansion schemes, which will be met through raising debt. The fast growing companies will have to rely on debt than on equity or internal earnings.

- **Tax Consideration -** Capital structure is also affected by the existing taxation system of the country. An increase in the rates of Corporate tax issue of debenture in place of shares is regarded as more appropriate. It's the reason being that in respect of interests paid on debentures, deductions thereof permissible for from the profits and hence tax burden on the company gets reduced.
- **Cost of Capital -** Cost of different components of capital will influence the capital structuring decisions. A firm should posses earning power to generate revenues to meet its cost of capital and finance its future growth. Generally the cost of equity is higher than the cost of debt, since the debt holders are assured of fixed rate of return and repayment of principal amount after the maturity period. Firms that adjust their capital structure in order to keep the riskiness of their debt and equity reasonable, should have a lower cost of capital.
- **Profitability -** A company with higher profitability will have low reliance on outside debt and it will meet its additional requirement through internal generation.

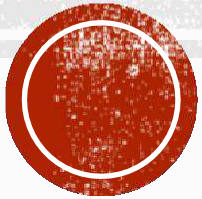
- **Financing Purpose -** The capital structure decisions are taken in view of the purpose of financing. The long-term projects are financed through long-term sources and in the form of equity. The short-term projects are financed by issue of debt instruments and by raising of term loans from banks and financial institutions.

The projects for productive purpose can be financed from both equity and debt. But the non-productive projects are financed by using the internal generated earnings.

- **Capital Structure of Other Companies -** Capital structure is influenced by the industry to which a company is related. All companies related to a given industry produce almost similar products, their costs of production are similar, they depend on identical technology, they have similar profitability, and hence the pattern of their capital structure is almost similar.

Because of this fact, there are different debt- equity ratios prevalent in different industries. Hence, at the time of raising funds a company must take into consideration debt-equity ratio prevalent in the related industry.

PART – 2
SOURCES OF FINANCE



FINANCE

- Finance is the basic requirement of any business.
- It is considered as the **lifeblood** of businesses.
- It is the amount of money, funds or capital required for the smooth functioning of any business.
- It is required at every stage, from promotion to liquidation.
- **Adequate** finance is required for **orderly functioning** of a business.
- Promoters need to calculate financial needs through a financial plan.

- Proper financial management is very important.
- Thus, finance affects the profitability, growth and survival of a business.
- No finance, no business.

BUSINESS FINANCING

- **Business finance is a process of raising, providing and managing of all the money that is to be used in connection with business activities.**

- Business Finance is the finance required for conducting business activities.

- Modern businesses require huge amount of fixed and working capital for conducting business.

MEANING

Money required for carrying out business activities is called business Finance.

DEFINITION

"Business Finance can be broadly defined as the activity concerned with planning, raising, controlling and administering of funds used in the business.||

Guthmann and Douglas

PRINCIPLES OF BUSINESS FINANCE

- Full Utilization of Funds
- Maximization of Return on Investment
- Survival and Prosperity of business unit
- Fair balance between Liquidity & Profitability
- Good Public Image

FINANCIAL NEED OF A BUSINESS
OR
NEED OF BUSINESS FINANCE

1. **Fixed Capital Requirement**

   (Fund to purchase Fixed Assets)

2. **Working Capital Requirement**

   (Amount required for day to day operations that means ―working capital‖)

CLASSIFICATION OF SOURCES OF FUNDS

1. **Periodic Basis**

   (Long term – Medium Term - Short Term)

   +5 yr 1-5 yr -1 yr

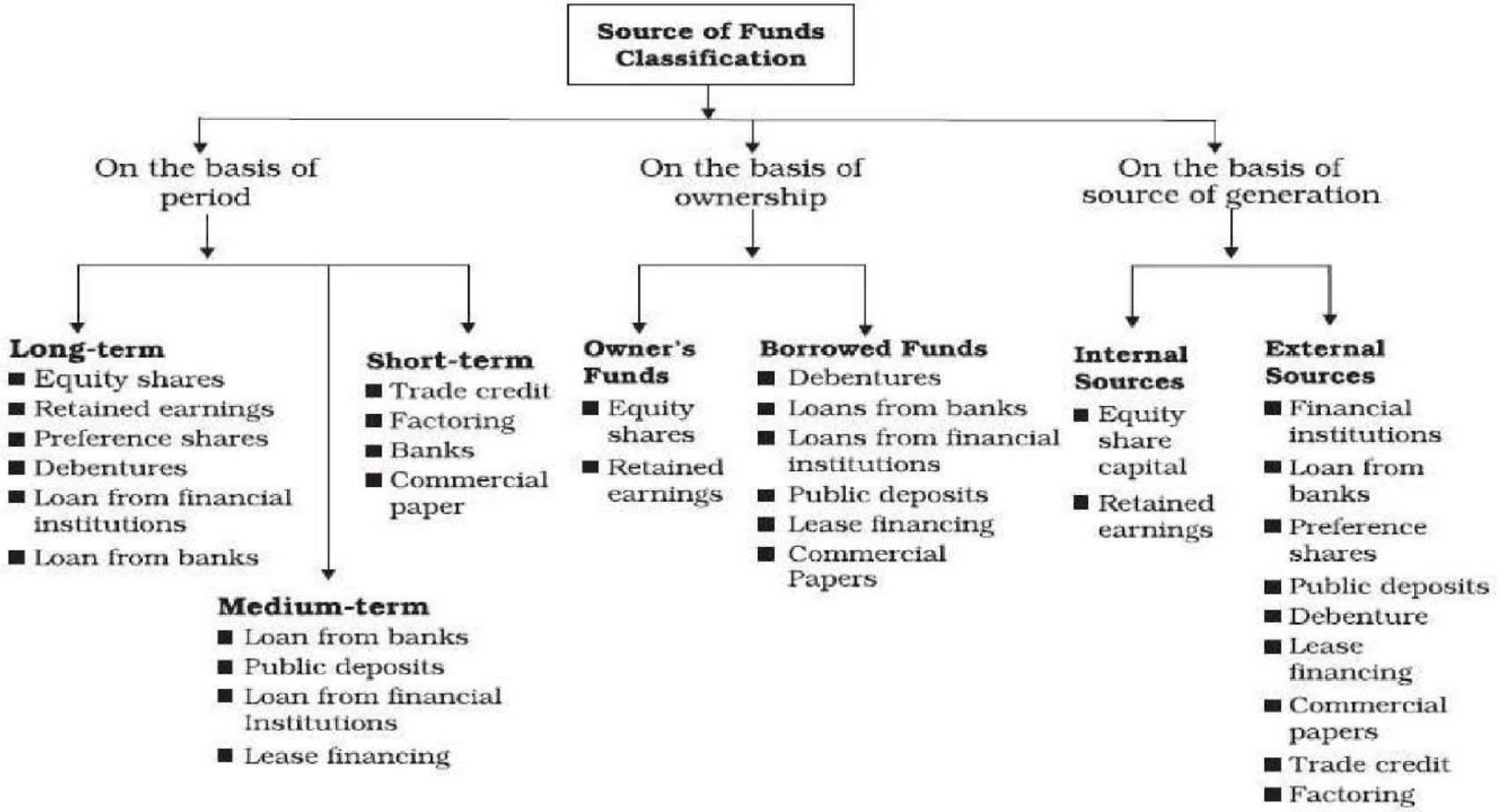
2. **Ownership Basis**

   (Owner's Fund – Borrowed Fund)

3. **Sources of Generation Basis**

   (Internal Source – External Source)

Classification of Sources of Funds



SOURCES OF CAPITAL

SOURCES OF CAPITAL

1. Retained Earnings
2. Trade Credit
3. Factoring
4. Lease Financing
5. Issue of Shares (Equity and Preference Shares)
6. Public Deposit
7. Commercial Paper
8. Debenture
9. Commercial Banks
10. Financial Institutions

RETAINED EARNINGS

Profits generated by a company that are not distributed to stockholders (shareholders) as dividends but are either reinvested in the business or kept as a reserve for specific objectives (such as to pay off a debt or purchase a capital asset).

MERITS

- Retained earnings is a permanent source of funds available to an organization.
- It does not involve any explicit cost in the form of interest, dividend or floatation cost.
- As the funds are generated internally, there is a greater degree of operational freedom and flexibility.

LIMITATIONS

- Excessive plaguing back may cause dissatisfaction amongst the shareholders as they would get lower dividends.
- It is an uncertain source of funds as the profits of business are fluctuating;
- The opportunity cost associated with these funds is not recognized by many firms.

TRADE CREDIT

- Trade credit is the credit extended to you by suppliers who let you buy now and pay later. Any time you take delivery of materials, equipment or other valuables without paying cash on the spot, you're using trade credit.

MERITS

- Trade credit is a convenient and continuous source of funds;
- Trade credit may be readily available in case the credit worthiness of the customers is known to the seller;
- Trade credit needs to promote the sales of an organization;
- If an organization wants to increase its inventory level in order to meet expected rise in the sales volume in the near feature.

LIMITATIONS

- Availability of easy and flexible trade credit facilities may induce a firm to indulge in overtrading which may add to the risk of the firm.
- Only limited amount of funds can be generated through trade credit.
- It is generally a costly source of funds as compared to most other sources of raising money.

FACTORING

- Factoring is a type of finance in which a business would sell its accounts receivable (invoices) to a third party to meet its short-term liquidity needs. Under the transaction between both parties, the factor would pay the amount due on the invoices minus its commission or fees.

MERITS

- Obtaining funds through factoring is cheaper than financing through other means such as bank credit.
- With cash flow accelerated by factoring the clients is able to meet his/ her liabilities promptly as and when these arise.
- Factoring as a source of funds is flexible and ensures a definite pattern of cash inflows from credit debt that a firm might otherwise be unable to obtain.

LIMITATIONS

- This source is expensive when the invoices are numerous and smaller in amount.
- The advance finance provided by the factor firm is generally available at a higher interest cost than the usual rate of interest.
- The factor is a third party to the customer who may not feel comfortable while dealing with it.

LEASE FINANCING

- Lease financing is one of the important sources of medium- and long-term financing.
- The owner of an asset gives another person, the right to use that asset against periodical payments. The owner of the asset is known as lessor and the user is called lessee.

MERITS

- It enables the lessee to acquire the asset with a lower investment.
- Simple documentation makes it easier to finance assets.
- Lease rentals paid by the lessee are deductible for computing taxable profits.
- It provides finance without diluting the ownership or control of business.

LIMITATIONS

- A lease arrangement may impose certain restrictions on the use of assets.
- The normal business operations may be affected in case the lease is not renewed.
- It may result in higher payout obligation in case the equipment is not found useful and the lessee opts for premature termination of the lease agreement .

PUBLIC DEPOSITS

- Public deposits refer to the unsecured deposits invited by companies from the public mainly to finance working capital needs. A company wishing to invite public deposits makes an advertisement in the newspapers.
- Any member of the public can fill up the prescribed form and deposit the money with the company. The company in return issues a **deposit receipt**. This receipt is an **acknowledgement of debt** by the company. The terms and conditions of the deposit are printed on the back of the receipt. The **rate of interest** on public deposits depends on the **period of deposit** and reputation of the company.

MERITS

- The procedure of obtaining deposits is simple and does not contain restrictive conditions as are generally there in a loan agreements.
- Public deposits do not usually create any charge on the assets of the company. The assets can be used as security for raising loans from other sources.

LIMITATIONS

- New companies generally find it difficult to raise funds through public deposits.
- It is an unreliable source of the finance as the public may not respond when the company needs money.
- Collection of public deposits may prove difficult, particularly when the size of deposits required is large.

COMMERCIAL PAPER

- Commercial Paper or CP is defined as a short-term, unsecured money market instrument, issued as a **promissory note** by big corporations having excellent credit ratings. As the instrument is not backed by collateral, only large firms with considerable financial strength are authorised to issue the instrument.

MERITS

- A commercial paper is sold on an unsecured basis and does not contain any restrictive conditions.
- As it is a freelytransferable instrument it has high liquidity.
- It provides more funds compared to other source.
- A commercial paper provides a continuous source of funds.
- Companies can park their excess funds in commercial paper thereby earning some good retunes on the same.

LIMITATIONS

- Only financially sound and highly rated firms can raise money through commercial papers.
- The size of money that can be raised through commercial paper is limited to the excess liquidity available with the suppliers of funds at a particular time.
- Commercial paper is an impersonal method of financing.

ISSUE OF SHARES

1. Issue of EQUITY SHARES
2. Issue of PREFERENCE SHARES

EQUITY SHARES

- Equity shares are the main source of finance of a firm. It is issued to the general public. Equity shareholders do not enjoy any preferential rights with regard to repayment of capital and dividend. They are entitled to residual income of the company, but they enjoy the right to control the affairs of the business and all the shareholders collectively are the owners of the company.

MERITS

- Equity shares are suitable for investors who are willing to assume risk for higher returns.
- Payment of dividend to the equity shareholders is not compulsory.
- Equity capital serves as permanent capital as it is to be repaid only at the time of liquidation of a company.
- Equity capital provides credit worthiness to the company and confidence to prospective loan providers.

LIMITATIONS

- Investors who wants steady income may not prefer equity shares as equity shares get fluctuating returns.
- The cost of equity shares is generally more as compared to the cost of ravishing funds through other sources.
- Issue of additional equity shares dilutes the voting power and earnings of existing equity shareholders.
- More formalities and procedural delays are involved while raising funds through issue of equity share.

PREFERENCE SHARES

- Preference shares allow an investor to own a stake at the issuing company with a condition that whenever the company decides to pay dividends, the holders of the preference shares will be the first to be paid.
- This shares, often with no voting rights, which receive their dividend before all other shares and are repaid first at face value if the company goes into liquidation.

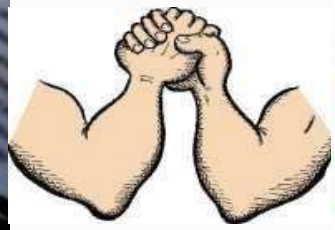
MERITS

- Preference shares provide reasonably steady income in the form of fixed rate of return and safety of investment.
- Preference shares are useful for those investors who want fixed rate of return with comparatively low risk.
- It does not affect the control of equity shareholders over the management as preference shareholders don‘t have voting rights.

LIMITATIONS

- Preference shares are not suitable for those investors who are willing to take risk and are interested in higher returns .
- Preference capital dilutes the claims of equity shareholders over assets of the company.
- The rate of dividend on preference shares is generally higher than the rate of interest on debentures.

EQUITY SHARES V/S PREFERENCE SHARES



Bases of differences	Preferences shares	Equity shares
Rate of dividend	Preference shareholders are paid dividend at a fixed rate	The rate of dividend on equity shares may vary from year to year and depending upon the available of profit.
Arrears of divided	Holders of cumulative preference shares can get the arrears of past dividend.	Equity shareholders cannot get the arrears of past dividends
Voting right	Preference shareholders do not have right to participate in the management of the company.	Equity shareholder enjoy voting rights
Payment of dividend	These shares have a preferential right to receive dividend before any dividend is paid to equity share.	Payment of dividend to equity shares is made only after paying to preference shares.
convertibility	These shares are convertible.	These shares are not convertible.

DEBENTURES

- A debenture is a type of debt instrument that is not secured by physical asset or collateral. Debentures are backed only by the general credit worthiness and reputation of the issuer. Both corporations and governments frequently issue this type of bond to secure capital. Like other types of bonds, debentures are documented in an indenture.

If a company needs funds for extension and development purpose without increasing its share capital, it can borrow from the general public by issuing certificates for a fixed period of time and at a fixed rate of interest. Such a loan certificate is called a debenture. Debentures are offered to the public for subscription in the same way as for issue of equity shares. Debenture is issued under the common seal of the company acknowledging the receipt of money.

FIJIAN GOVERNMENT DEBENTURE.

No. 46

No 46

TRANSFERABLE

BY DELIVERY.

Under the authority of "The Public Loans Act, 1871."

TEN DOLLARS.

TEN DOLLARS.

This Debenture Entitles the Bearer to Ten Dollars on the Fifteenth day of December 18 74 which with Interest thereon at the rate of Ten Dollars per centum per annum is hereby secured on the Consolidated Revenue of the Kingdom of Fiji, such Interest being payable Quarterly at the Treasury, Levuka.

Dated the First day of January 1875

Treasurer.

Entered at the Audit Office in the Register of Debentures,

Folio 6 this 1st day of August 1875

MERITS

- It is preferred by investors who want fixed income at lesser risk.
- Debentures are fixed charge funds and do not particulars in profits of the company.
- The issue of debentures is suitable in the situation when the sales and earnings are relatively stable.

LIMITATIONS

- As fixed charge instruments debentures put a permanent burden on the earnings of a company.
- In case of redeemable debentures, the company has to make provisions for repayment on the specified date, even during periods of financial difficulty.
- Each company has certain borrowing capacity.

COMMERCIAL BANKS

- A commercial bank is a financial institution that provides various financial service, such as accepting deposits and issuing loans. Commercial bank customers can take advantage of a range of investment products that commercial banks offer like savings accounts and certificates of deposit. The loans a commercial bank issues can vary from business loans and auto loans to mortgages.

MERITS

- Banks provide timely assistance to business by providing funds as and when needed by it.
- Secrecy of business can be maintained as the information supplied to the bank by the borrowers is kept confidential.
- Formalities such as issue of prospectus and underwriting are not required for raising loans from a bank.
- Loan from a bank is a flexible source of finance as the loan according to business needs and can be repaid in advance when funds are not needed.

LIMITATIONS

- Funds are generally available for short periods and its extension or renewal is uncertain and difficult.
- Bankers make detailed investigation of the company affairs, financial structure etc and may also ask for security of assets and personal sureties .
- In some cases difficult terms and conditions are imposed by banks for the grant of loan.

FINANCIAL INSTITUTIONS

A **financial institution** (FI) is a company engaged in the business of dealing with monetary transactions, such as deposits, loans, investments and currency exchange. ... Virtually everyone living in a developed economy has an ongoing or at least periodic need for the services of **financial institutions**.

MERITS

- Financial institutions provide long term finance which are not provided by commercial banks.
- Besides providing funds many of these institutions provide financial, managerial and technical advice and consultancy to business firms.
- As repayment of loan can be made in easy installments, it does not prove to be much of a burden on the business.

LIMITATIONS

- Financial institutions follow rigid criteria for grant of loans. Too many formalities make the procedure time consuming and expensive.
- Certain restrictions such as restriction on dividend payment are imposed on the powers of the borrowing company by the financial institutions.


Shares
Vs
Debentures

BASIS FOR COMPARISON	SHARES	DEBENTURES
Meaning	The shares are the owned funds of the company.	The debentures are the borrowed funds of the company.
What is it?	Shares represent the capital of the company.	Debentures represent the debt of the company.
Holder	The holder of shares is known as shareholder.	The holder of debentures is known as debenture holder.
Status of Holders	Owners	Creditors
Form of Return	Shareholders get the dividend.	Debenture holders get the interest.

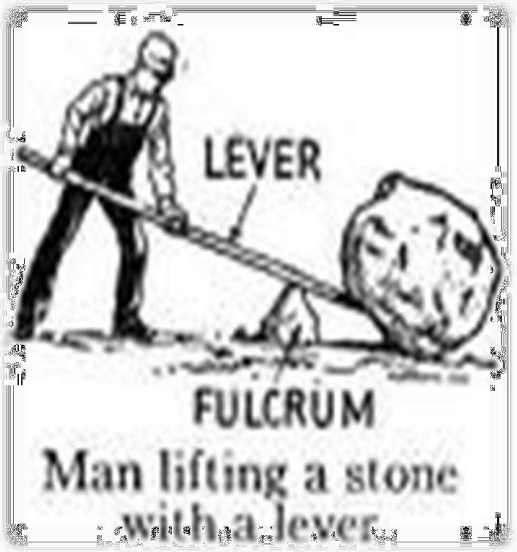
BASIS FOR COMPARISON	SHARES	DEBENTURES
Payment of return	Dividend can be paid to shareholders only out of profits.	Interest can be paid to debenture holders even if there is no profit.
Allowable deduction	Dividend is an appropriation of profit and so it is not allowed as deduction.	Interest is a business expense and so it is allowed as deduction from profit.
Security for payment	No	Yes
Voting Rights	The holders of shares have voting rights.	The holders of debentures do not have any voting rights.

BASIS FOR COMPARISON	SHARES	DEBENTURES
Conversion	Shares can never be converted into debentures.	Debentures can be converted into shares.
Repayment in the event of winding up	Shares are repaid after the payment of all the liabilities.	Debentures get priority over shares, and so they are repaid before shares.
Quantum	Dividend on shares is an appropriation of profit.	Interest on debentures is a charge against profit.
Trust Deed	No trust deed is executed in case of shares.	When the debentures are issued to the public, trust deed must be executed.

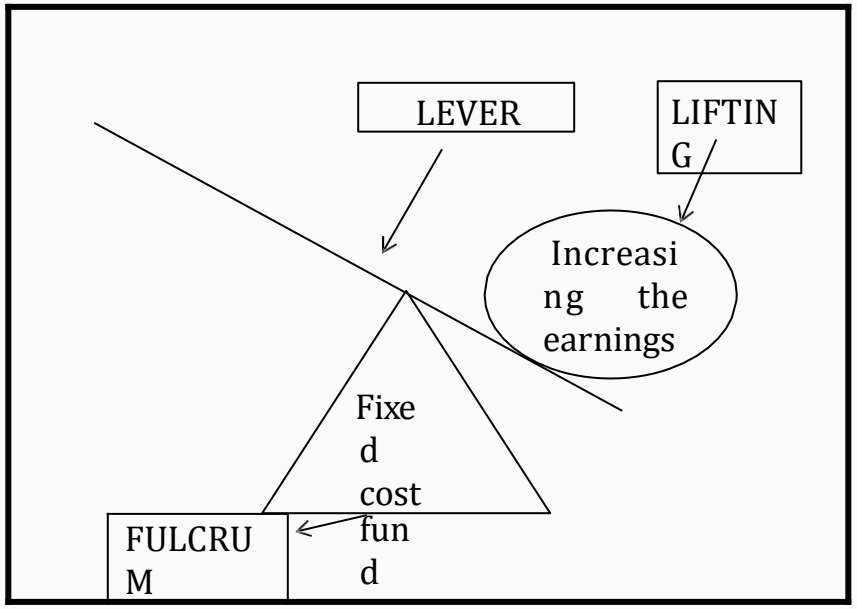
PART-3 LEVERAGE

DIAGRAM

Leverage in physics



Leverage in finance

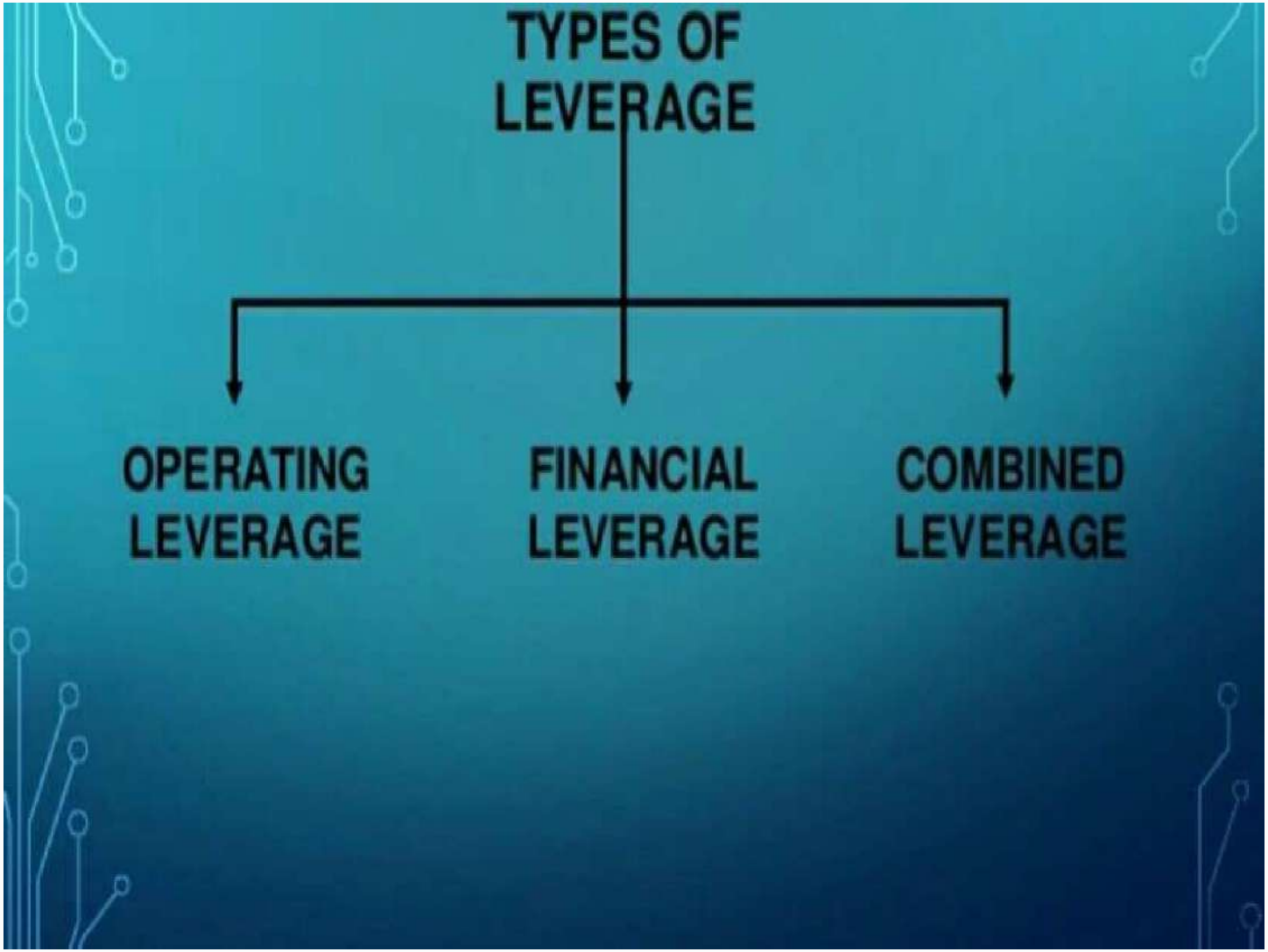


MEANING OF LEVERAGE

- In general ,leverage refers to accomplish certain things which are otherwise not possible i.e. lifting of heavy objects with the help of lever. This concept of leverage is valid in business also .
- In finance ,the term 'leverage' is used to describe the firm's ability to use fixed cost assets or funds to increase the return to its owners; i.e. equity shareholders. In other words, the fixed cost funds i.e. debentures & preference share capital act as the fulcrum , which assist the lever i.e. the firm to lift i.e. to increase the earnings of its owner i.e. the equity shareholders.

LEVERAGE

- If earnings less, the variable costs exceed the fixed costs i.e. preference dividend & interest on debenture, or earnings before interest and taxes exceed the fixed return requirement, the leverage is called favourable . when they do not ,the result is unfavourable leverage .
- Leverage is also the influence which an independent variable has over a dependent/related variable i.e. rainfall over production. In financial context, sales & fixed cost over profit.


TYPES OF LEVERAGE
OPERATING LEVERAGE
FINANCIAL LEVERAGE
COMBINED LEVERAGE


Operating
Leverage

OPERATING LEVERAGE

- Operating leverage is a measurement of the degree to which a firm incurs a combination of fixed and variable cost.
- Operating leverage = contribution/EBIT

  Where,

  contribution = sales – variable cost

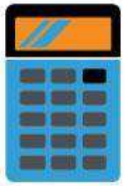
  EBIT = contribution – fixed cost

Note : in case the contribution exceeds the fixed cost,the operating leverage is favorable. when C<F,the operating leverages is unfavorable.

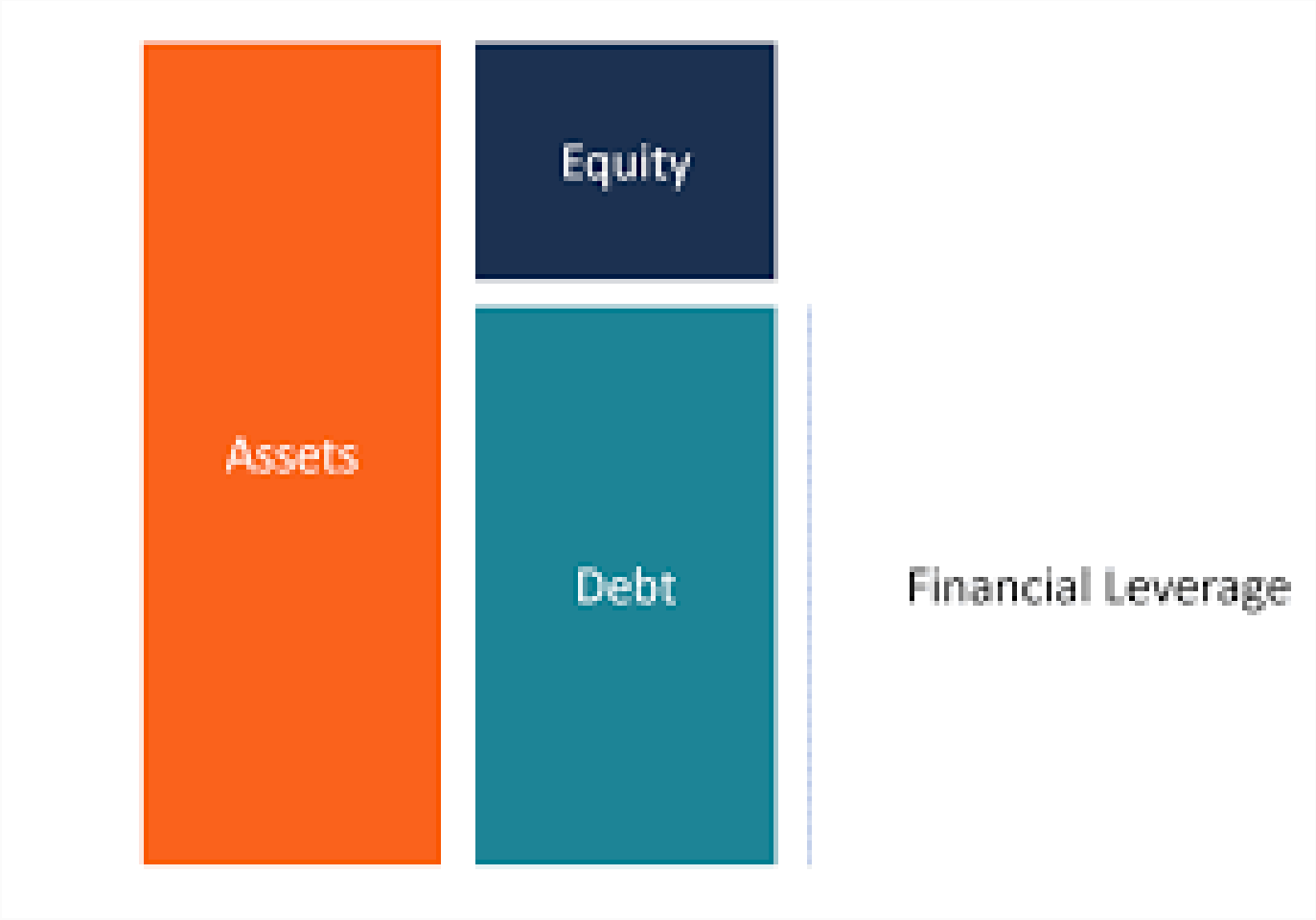
DEGREE OF OPERATING LEVERAGE

- It measures how much is the effect of change in sales on operating profit.
- The degree of operating leverage at any level is expressed in percentage change in operating profit to percentage change in sales.

DEGREE OF OPERATING LEVERAGE



$$\text{Degree of Operating Leverage Formula} = \frac{\%\ \text{Change in EBIT}}{\%\ \text{Change in Sales}}$$


Equity
Assets
Debt
Financial Leverage

FINANCIAL LEVERAGE

- It is the tendency of the residual net income to vary disproportionately with the operating profit.It indicate the changes that takes place in the taxable income as a result of the change in the operating profit.
- Financial leverage = EBIT/ EBT

Where,

EBIT = Earning before interest and tax

EBT = EBIT - I ,i.e. Earning before tax

I = Interest and Preference dividend

DEGREE OF FINANCIAL LEVERAGE

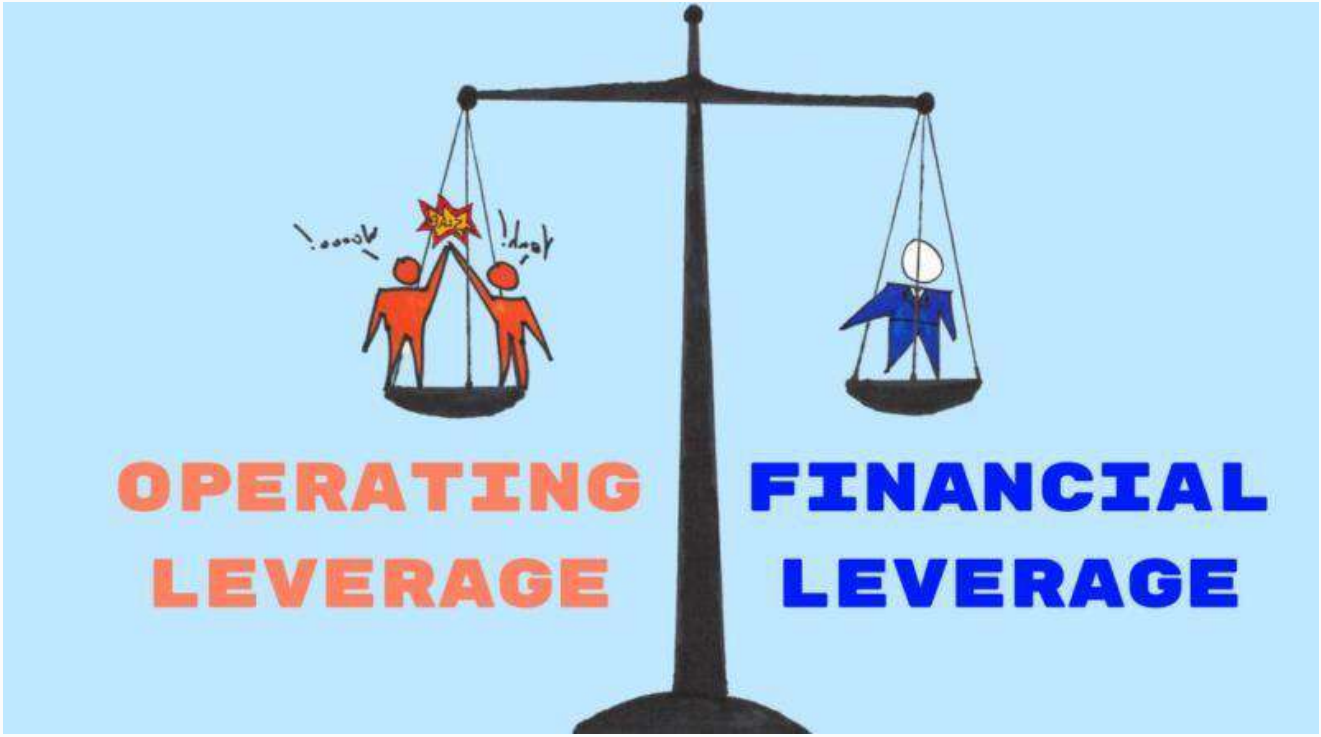
- The degree of financial leverage is defined as the percentage change in EPS due to the given percentage change in EBIT

  - DFL = $\frac{\%\text{ change in EPS}}{\%\text{ change in EBIT}}$

Degree of Financial Leverage Formula

$$\text{DFL Formula} = \frac{\%\ \text{Change in Net Income}}{\%\ \text{Change in EBIT}}$$

$$\text{DFL Formula} = \frac{\text{EBIT}}{\text{EBT}}$$


OPERATING
LEVERAGE
FINANCIAL
LEVERAGE

D / B OPERATING LEVERAGE & FINANCIAL LEVERAGE

Operating leverage

- It establishes the relationship b/w operating profit & sales
- It influences EBIT
- It is concerned with investment decision
- It explains business risk of the firm
- It is the first stage leverage

Financial leverage

- It establishes the relationship b/w operating profit & rate of equity
- It affects EAT
- It is concerned with finance decision
- It deals with financial risk of the firm
- It is the second stage leverage

COMBINED OR TOTAL LEVERAGE

- It is the combination of operating and financial leverage.
- Both of these leverage are closely concerned with firms capacity to meet its fixed cost & their combined effect will measure the firms financial strength.
- Combined leverage = operating leverage * financial leverage

DEGREE OF COMBINED LEVERAGE

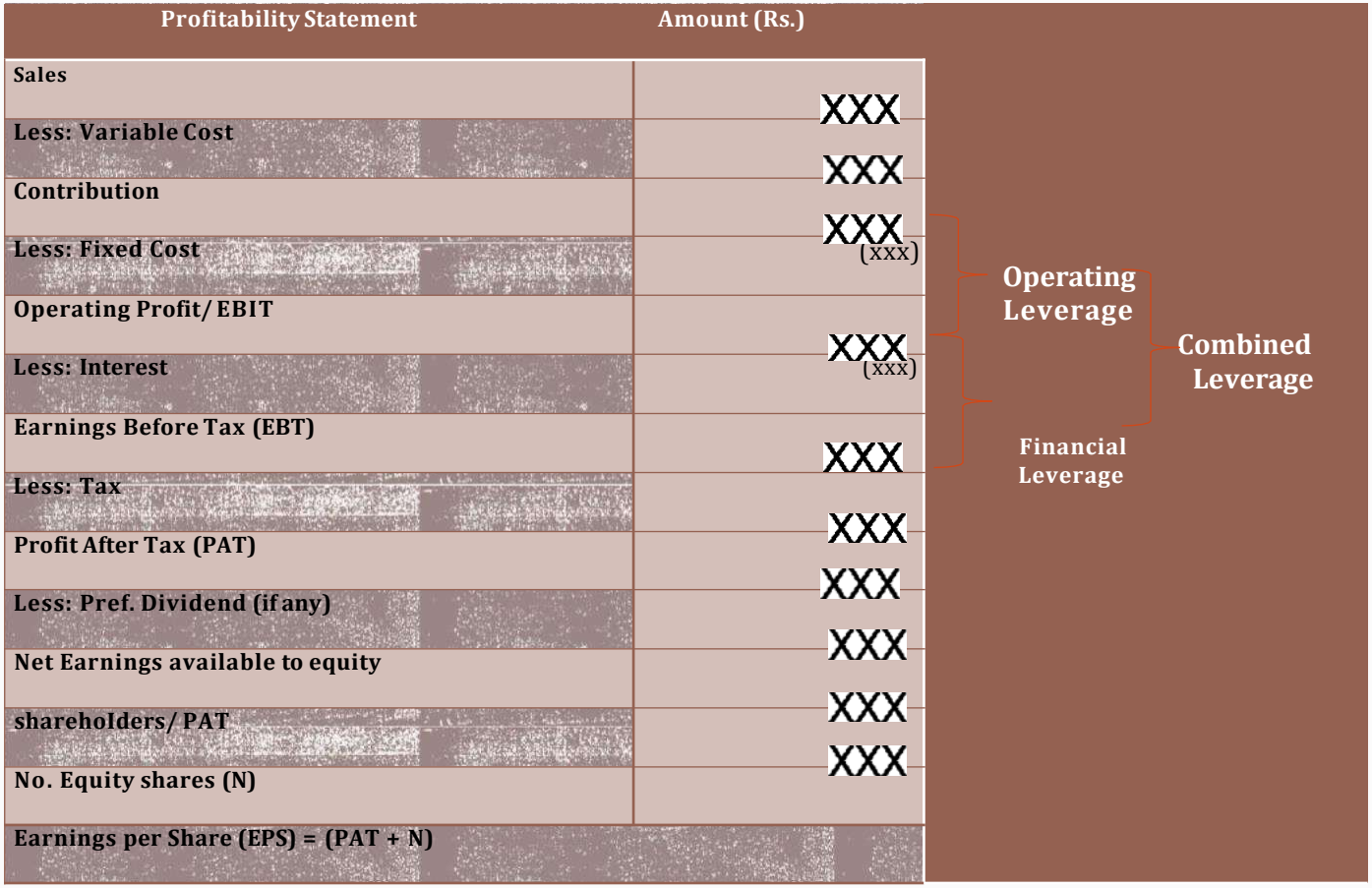
- It is calculated by multiplying the DOL and the DFL and it is calculated by the formula.
- Degree of combined leverage

= DOL * DFL

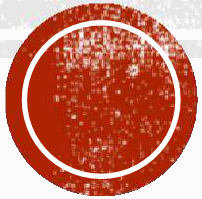
i.e., = % change in EPS /

% change in sale

CHART SHOWING OPERATING LEVERAGE, FINANCIAL LEVERAGE AND COMBINED LEVERAGE



PART – 4
COST OF CAPITAL



MEANING

As it is evident from the name, cost of capital refers to the weighted average cost of various capital components, i.e. sources of finance, employed by the firm such as equity, preference or debt.

In finer terms, it is the rate of return, that must be received by the firm on its investment projects, to attract investors for investing capital in the firm and to maintain its market value.

The factors which determine the cost of capital are:

(i) Source of finance
(ii) Corresponding payment for using finance.

On raising funds from the market, from various sources, the firm has to pay some additional amount, apart from the principal itself. The additional amount is nothing but the cost of using the capital, i.e. cost of capital which is either paid in lump sum or at periodic intervals.

COMPONENTS OF COST OF CAPITAL

A firm‘s cost of capital include 3 components :

1) Return at zero risk level :- It relates to the expected rate of return when a project involves no financial or business risk.
2) Business risk premium :- Generally business risk premium is determined by the capital budgeting decisions for investment proposals. If the firm selects a project which has more than the normal risk, the suppliers of the funds for the project will naturally expect a higher rate of return than the normal rate. Thus the cost of capital increases.

3) Financial risk premium :- Financial risk relates to the pattern of capital structure of the firm. A firm which has higher debt content in its capital structure should have more risk than a firm which has comparatively low debt content.

The above **3 components** of cost of capital may be written in the form of the following equation.

$$K = r0 + b + f$$

Where,

K= cost of capital

r0 = return at 0 risk level

b= business risk premium

f= financial risk premium

CLASSIFICATION OF COST OF CAPITAL

CLASSIFICATION COST OF CAPITAL

1) Historical cost and Future cost
2) Specific cost and Composite cost
3) Average cost and Marginal cost
4) Explicit cost and Implicit cost

Historical cost and Future cost :-

Historical cost are the costs which are incurred for the procurement of funds based upon the existing capital structure of the firm. It is a book cost.

Future cost is the cost which is relate to estimated for the future. Simply it is the cost to be incurred for raising new funds.

Specific cost and composite cost:-

Specific cost refers to the cost which is associated with the particular sources of capital.

E.g.- Cost of Equity

Composite cost is the combined cost of different sources of capital taken together.

E.g.- Cost of debt, cost of equity & Cost of pref.shares.

Average cost and Marginal Cost :-

Average cost is the combined cost of various sources of capital such as equity shares, debentures, preference shares.

Marginal cost of capital is the average cost of capital which has to be incurred due to new funds raised by the company for their financial requirements.

Explicit cost and Implicit cost:-

Explicit cost is the cut-off rate or internal rate of return.

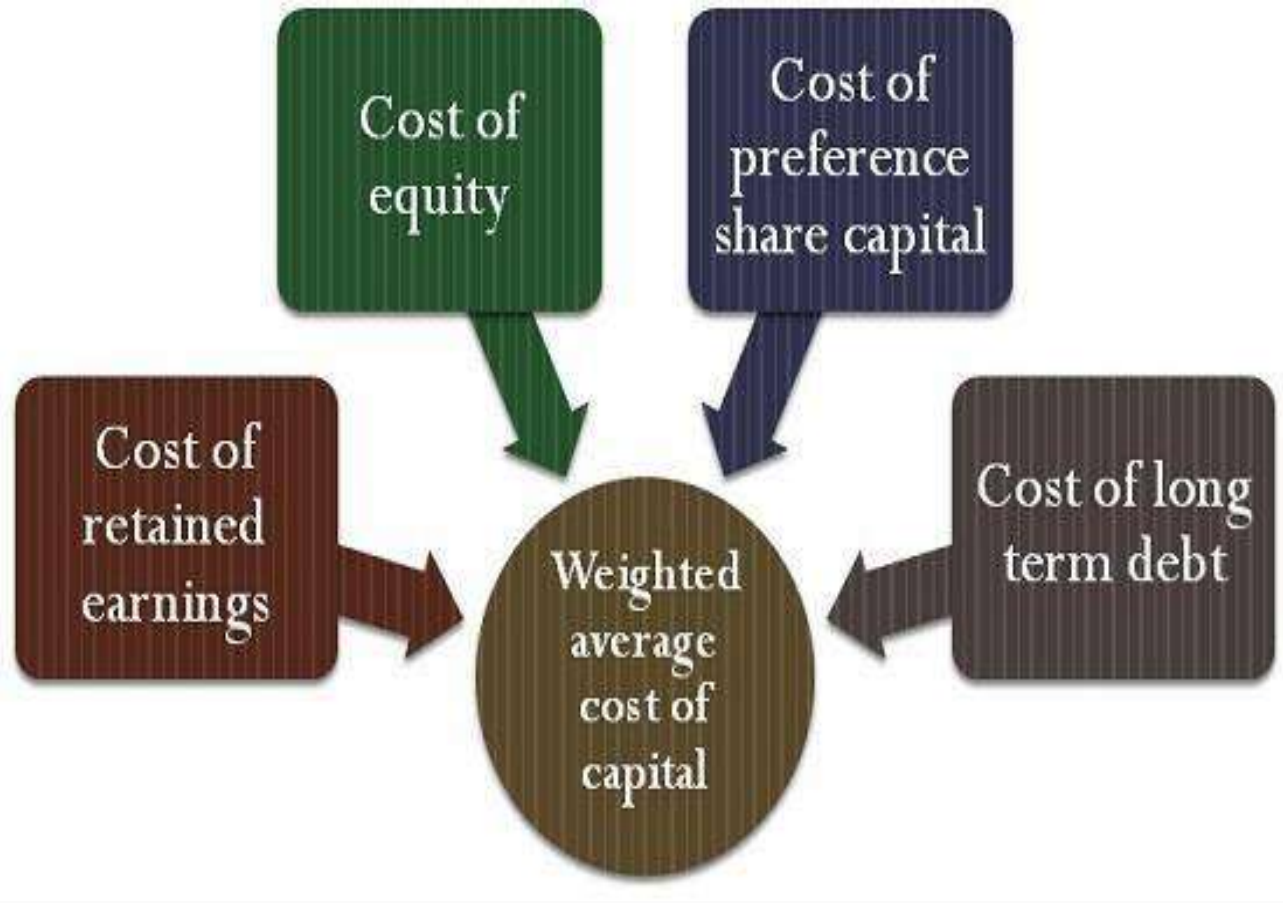
Implicit cost is the rate of return related to the best investment opportunity of the firm and its shareholders that will be foregone in order to take up a particular project.

COMPUTATION OF COST OF CAPITAL

Computation of the Cost of Capital involves;

I. Computation of **specific costs.**

II. Computation of **composite cost.**


Cost of equity
Cost of preference share capital
Cost of retained earnings
Cost of long term debt
Weighted average cost of capital

Computation of **Specific Cost** includes;

A. Cost of Debt

B. Cost of Preference Shares

C. Cost of Equity Shares

D. Cost of Retained Earnings

COMPUTATION OF SPECIFIC COST

A. <u>Cost of Debt</u> :-It is the rate of return which is expected by lenders.

$$\text{Cost of Debt}(K\,d) = \frac{I}{NP}$$

Where,

$K\,d$ = Cost of Debt

I = Interest

NP = Net proceeds

A1) when debt is issued at par:

- NP = Face value-Issued expenses

- **A2) When debt issued at premium:**
  - NP = Face value + Premium – Issue expenses
- **A3) When debt issued at discount:**
  - NP = Face value – Discount – Issue expenses

COST OF REDEEMABLE DEBT(BEFORE TAX)

Redeemable debt refers to the debt which is to be redeemed or repayable after the expiry of a fixed period of time.

$$K_d(\text{before tax}) = \frac{I+(P-NP)/n}{(P+NP)/2}$$

Where,

I = Annual Interest Payment

P = Par Value Of Debentures

NP = Net Proceeds Of Debentures

n= No. Of Years To Maturity

COST OF REDEEMABLE DEBT(AFTER TAX)

$$K_{d(\text{after tax})} = K_{d\ (\text{before tax})} \times (1-T)$$

Cost of Existing Debt

$$\text{Cost of Existing debt(Before tax)} = \frac{\text{Annual cost before tax}}{\text{Average value of debt}}$$

AVERAGE VALUE OF DEBT

$$AV = \frac{NP+RV}{2}$$

Where,

AV = Average Value

NP = Net Proceeds

RV = Redemption Value

B. COST OF PREFERENCE SHARE CAPITAL

Normally a fixed rate of dividend is payable on preference shares. But in the practical sense preference dividend is regularly paid by the companies when they earn sufficient amount of profit.

B.1) Cost of irredeemable preference share capital

$$KP = DP/NP$$

Where,

KP=Cost of pref.share capital

DP=Fixed preference dividend

NP=Net proceeds of pref . shares

Problem

A company raises preference share capital of Rs.1,00,000 by issuing 10% preference shares of Rs.100 each. Compute the cost of preference capital when they are issued at

a) 10% premium.
b) 10% discount.

SOLUTION:

a)When preference shares are issued at a premium of 10%.

$$KP = DP / NP$$

Where,

DP=Rs.10,000(@10% on Rs.1,00,000)

NP=Rs.1,10,000(Rs.1,00,000+Rs.10,000)

i.e., $= \frac{10,000}{1,10,000} = 9.09\%$

B)When preference shares are issued at a discount of 10%

$$KP = DP \backslash NP$$

$$= \frac{10{,}000}{90{,}000(1{,}00{,}000 - 10{,}000)} = 11.11\%$$

B2)COST OF REDEEMABLE PREFERENCE SHARES

Redeemable preference shares are those which are to be redeemed after the expiry of specified period of time.

$$KP = \frac{C+(D-NP)/n}{(D+NP)/2}$$

C = annual dividend

D = par value of preference shares

n = no . of years to maturity

NP=net proceeds

PROBLEM:

A company issues 10% redeemable preference shares for Rs.1,00,000 redeemable at the end of the 10^{th} year from the year of their issue. The underwriting cost is 5%. Calculate the effective cost of preference share capital.

SOLUTION:

$$KP = \frac{C+(D-NP)/n}{(D+NP)/2}$$

Where,

C=10,000

D=1,00,000

n=10 year

NP=95,000

$$= \frac{10,000+(1,00,00-95,000)/10}{1,00,000+95,000/2}$$

$$= \frac{10,000+5,000}{97,500}$$

$$= 10.77\%$$

C. COST OF EQUITY CAPITAL

Cost of equity capital may be defined as the minimum rate of return that a firm must earn on it investment, and also the market price of the equity shares on unchanged.

C1)Dividend price method

$$Ke = D/NP$$

Where,

Ke=Cost of equity capital

D=Expected dividend per share

NP=Net proceeds per share

C2)DIVIDEND PRICE PLUS GROWTH

In this method cost of equity capital is calculated on the basis of the dividend yield and the growth rate in dividend.

$$Ke = D/NP + g$$

Where,

Ke=Cost of equity capital

D=Expected dividend per share

NP=Net proceeds per share

g=Growth rate in dividends

C3) EARNING PRICE APPROACH

$$Ke = EPS / NP$$

Where,

K e=Cost of equity capital

EPS=Earning per share

NP=Net proceeds

D. COST OF RETAINED EARNINGS

It refers to that portion of the profit retained by the company for future development, business use and expansion is known as retained earnings.

$$Kr = Ke(1-t)(1-b)$$

Where,

Kr=Cost of retained earnings

Ke=Cost of equity capital

t=Tax rate

b=Brokerage

COMPUTATION OF COMPOSITE COST

Weighted Average Cost of Capital(WACC)

It refers to the weighted average cost of different sources of finance. It is very important in financial decision making. **Steps involved in computation of WACC;**

- Calculate the cost of each of the sources of finance is ascertained.
- Assigning weights to specific costs.
- Multiplying the cost of each sources by the appropriate weights.
- Dividing the total weighted cost by the total weights.

WEIGHTED AVERAGE COST OF CAPITAL CAN BE COMPUTED THE FOLLOWING FORMULA.

$$Kw = \Sigma XW / \Sigma W$$

Where,

Kw = Weighted average cost of capital

X = Cost of specific source of finance

W = Weights, proportion of specific source of finance

PROBLEM

The cost of capital (after tax) of a company is the specific sources is as follows:

Cost of Debt	4.00%
Cost of Preference shares	11.50%
Cost of Equity Capital	15.50%
Cost of Retained Earnings	14.50%

(assuming external)

CONT.....

Capital Structure are

Sources	**Amount**
Debt	3,00,000
Preference Shares	4,00,000
Equity Share Capital	6,00,000
Retained Earnings	2,00,000
	15,00,000

Calculate the weighted average cost of capital using _Book Value Weight‘.

SOLUTION:

COMPUTATION OF WEIGHTED AVERAGE COST OF CAPITAL UNDER BOOK VALUE WEIGHTS

Sources (a)	Amount (b)	Proportion(c)	After tax cost(d)	Weighted cost (e) = (c) X (d)
Debt	300000	0.200(20%)	0.0400	0.0080
Preference Share capital	400000	0.267(26.7%)	0.1150	0.0307
Equity Share Capital	600000	0.400(40%)	0.1550	0.0620
Retained Earnings	200000	0.133(13.3%)	0.1450	0.0193
	1500000	1.000(100%)		0.1200

WEIGHTED AVERAGE COST OF CAPITAL :12%

ALTERNATIVE APPROACH

Computation Of Weighted Average Cost Of Capital

Sources (a)	Amount (b)	Cost (c)	Total cost (d) = (b) X (c)
Debt	300000	4.00%	12000
Preference Share capital	400000	11.50%	46000
Equity Share Capital	600000	15.50%	93000
Retained Earnings	200000	14.50%	29000
	1500000		180000

WEIGHTED AVERAGE COST OF CAPITAL = 180000/1500000 = 12%

From the information mentioned in the previous eg.,Compute WACC talking into a/c that the market value **of various sources of funds are as follows:**

Sources	**Market Value**
Debt	2,50,000
Preference Shares	4,50,000
Equity and Retained Earnings	10,00,000

A sum of Rs. 10,00,000 may be allocated between equity share capital and retained earnings as follows.

Sources (a)	Book value(b)	Percentage(c)	Market Value(d)
Equity shares	**6,00,000**	**600000 / 800000 X 100 = 75%**	**1000000 X 75% = 750000**
Retained Earnings	**200000**	**200000 / 800000 X 100 = 25%**	**1000000 X 25% = 250000**

Thus after computing the market value, WACC is ascertained as follows.

COMPUTATION OF WACC(MARKET-VALUE WEIGHT)

Sources (a)	Market Value Rs. (b)	Cost (c)	Total Cost Rs. (d) = b×c
Debt	2,50,000	4.00%	10,000
Preference Share	4,50,000	11.50%	51,750
Equity Share Capital	7,50,000	15.50%	1,16,250
Retained Earnings	2,50,000	14.50%	36,250
	17,00,000		2,14,250

WACC=2,14,250/17,00,000 = 12.60%

UNIT – 5
CAPITAL BUDGETING

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By:

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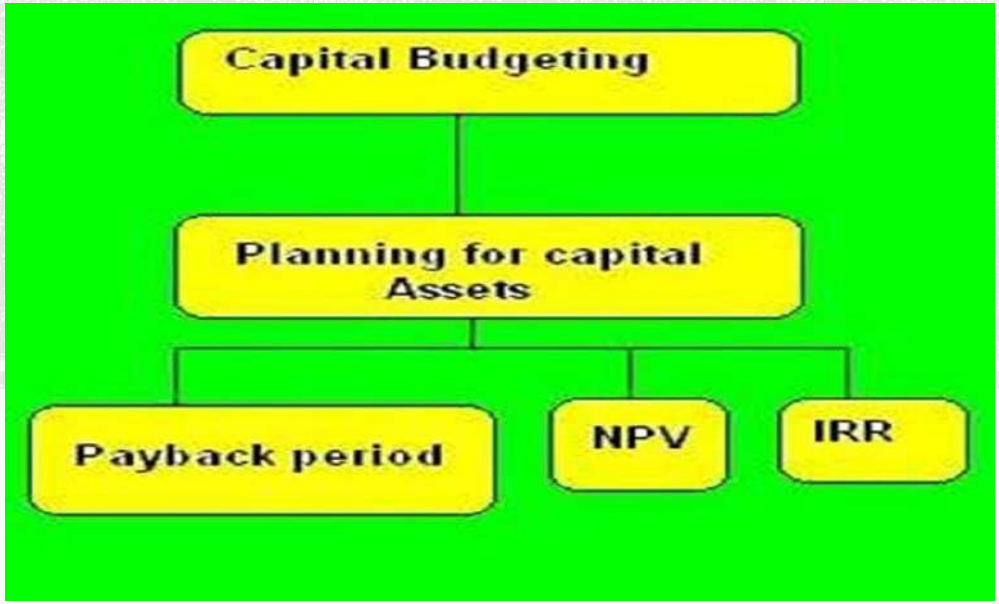
An Investment Decision Method



1. Meaning of Budget
2. Budget Sector and Types of Budget
3. **Capital Budgeting**
4. Importance of Capital Budgeting
5. Capital Budgeting: Eight Steps
6. Time Value of Money
7. Evaluation Criteria: Capital Investment Appraisals
8. Conclusion

MEANING OF BUDGET

- **Budgeting** is a management tool for planning and controlling future activity.

Financial Buzz Words: A plan for saving, borrowing and spending.

- **Budget** is a financial plan and a list of all planned expenses and revenues.

Budget Types

BUDGET SECTOR

- Buisness start-up budget
- Corporate/ Buisness budget
- Government budget
- Event management budget
- Personal / Family budget

Basis of Flexibility : Fixed and Variable Budget
Basis of Time Period : Short-Term and Long –Term Budget
Basis of Functionality: Sales budget, Production budget , Marketing budget, Project budget, Revenue budget, Cash flow/cash budget etc.

CAPITAL BUDGETING

Capital: Operating assets used for production.

Budget: A plan that details projected cash flows during some period.

Capital Budgeting: Process of analyzing projects and deciding which ones to include in capital budget.

DEFINITION OF CAPITAL BUDGETING

- **According to Charles T. Horngreen** ,—Capital budgeting is long-term planning for making and financing proposed capital outlay‖.
- **Milton H. Spencer** defines _capital budgeting‘ as —Capital budgeting involves the planning of expenditure for assets, the returns from which will be realized in future time periods‖.

IMPORTANCE OF CAPITAL BUDGETING

- Growth
- Large Amount
- Irreversibility
- Complexity
- Risk
- Long term implications

Benefits of Capital Budgeting Decision:

Capital Budgeting decisions evaluate a proposed project to forecast return from the project and determine whether return from the Project is adequate.

Capital Budgeting decisions evaluate expenditure decisions which involve current outflow of funds but are likely to produce benefits over a period of time more than one year.

CAPITAL BUDGETING IS THE PLANNING PROCESS USED TO DETERMINE FIRM'S LONG TERM INVESTMENTS SUCH AS NEW MACHINERY, REPLACEMENT MACHINERY, NEW PLANTS, NEW PRODUCTS AND RESEARCH & DEVELOPMENT PROJECTS.

TIME VALUE OF MONEY

- Which would you rather have – Rs.1,000 today or Rs.1,000 in 5 years?
- Money received sooner rather than later allows one to use the funds for investment or consumption purposes.
- All other factors being equal, it is better to have $1,000 today.
- Simply put this is the concept of the time value of money.

IMPORTANCE OF TIME FACTOR

Why is TIME such an important element in your decision?

TIME allows one the opportunity to postpone consumption and earn INTEREST.

CONT...

- TVM help us in knowing the value of money invested. As time changes value of money invested on any project/ firm also changes. And its present value is calculated by using –mathematical formula||, which tell us the value of money with respectoftime.i.e.

$$PV = \frac{FV}{(1+i)^n}$$

PV = present value

FV = future value (money to be received in the future)

i = discount rate

n = number of periods until fv is received

REASONS FOR TIME VALUE OF MONEY

- *RiskandUncertainty*
- *Inflation*
- *Consumption*
- *Investmentopportunities*
- *e.g.- if an individual is given an alternative either to receive Rs.10,000 now or after one year, he will prefer Rs.10,000 now. This is because, today, he may be in a position to purchase more goods with this money than what he is going to get for the same amount after one year.*

IMPORTANCE OF TVM

1. ***In Investment Decisions*** - *Small businesses often have limited resources to invest in business operations, activities and expansion. One of the factors we have to look at is how to invest, is the time value of money.*
2. ***In Capital Budgeting Decisions*** - *When a business chooses to invest money in a project - such as an expansion, a strategic acquisition or just the purchase of a new piece of equipment -- it may be years before that project begins producing a positive cash flow. The business needs to know whether those future cash flows are worth the upfront investment.*

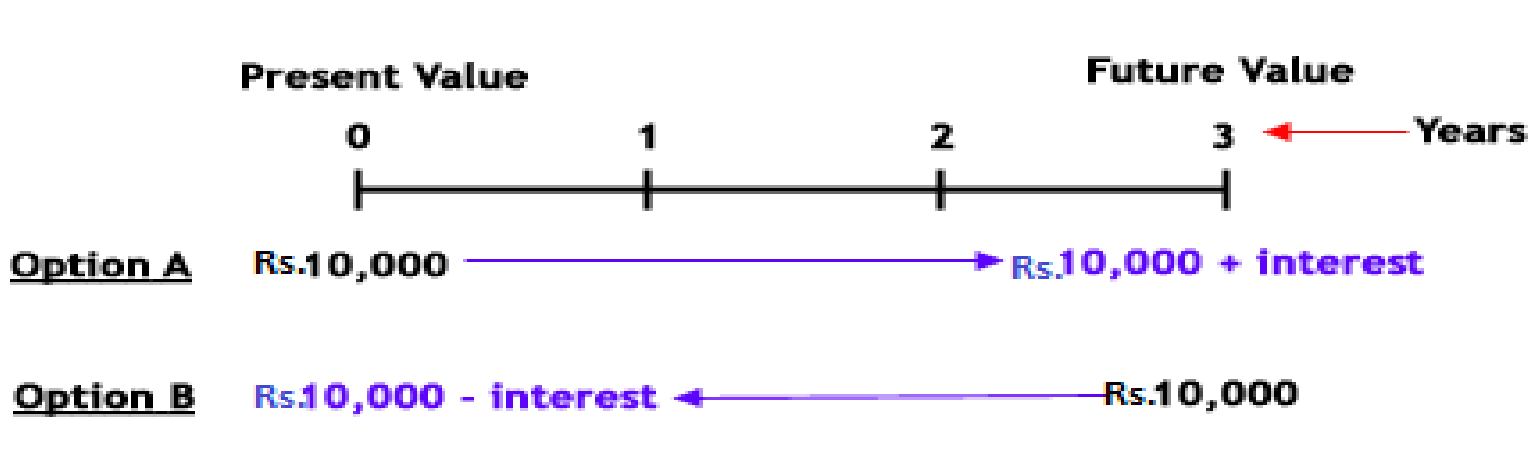
VALUATION CONCEPTS

The time value of money establishes that there is a preference of having money at present than a future point of time. It means;

- *If an individual is given an option A to receive Rs. 10,000 now or option B after three year, he will prefer Rs. 10,000 now because although the amount is the same, you can do much more with the money if you have it now because over time you can earn more interest on your money. By receiving Rs. 10,000 today you can increase the future value of your money by investing and gaining interest over a period of time. For Option B, you don't have time on your side, and the payment received in three years would be your future value.*

CONT...

If you are choosing Option A, your future value will be Rs.10,000 plus any interest acquired over the three years. The future value for Option B, on the other hand, would only be Rs. 10,000. So how can you calculate exactly how much more Option A is worth, compared to Option B. To illustrate, we have provided a timeline:



CONT...

- *As we prefer to choose to option A for receiving the amount and invest the total amount at a simple annual rate of 4.5%, the future valueof yourinvestmentat theendof thefirst yearis Rs.10,450,ason end of second year it will be Rs.10,920.25 and same continued as thirdyearandasonendof thirdyearthe amountwillbeRs.11411.66*

- *Figure shows how value of money is increasing by the time.*

CONT...

Ques. *At the end of 3rd year what amount we will get or what will be the future value of Rs. 10,000 at rate of 4.5% uniformly.*

Solution;

As we know PV = $\frac{FV}{(1+i)^n}$ $\Longrightarrow$ $FV = PV(1+i)^n$

where, PV = Rs. 10,000 , i = 4.5% and n = 3 years

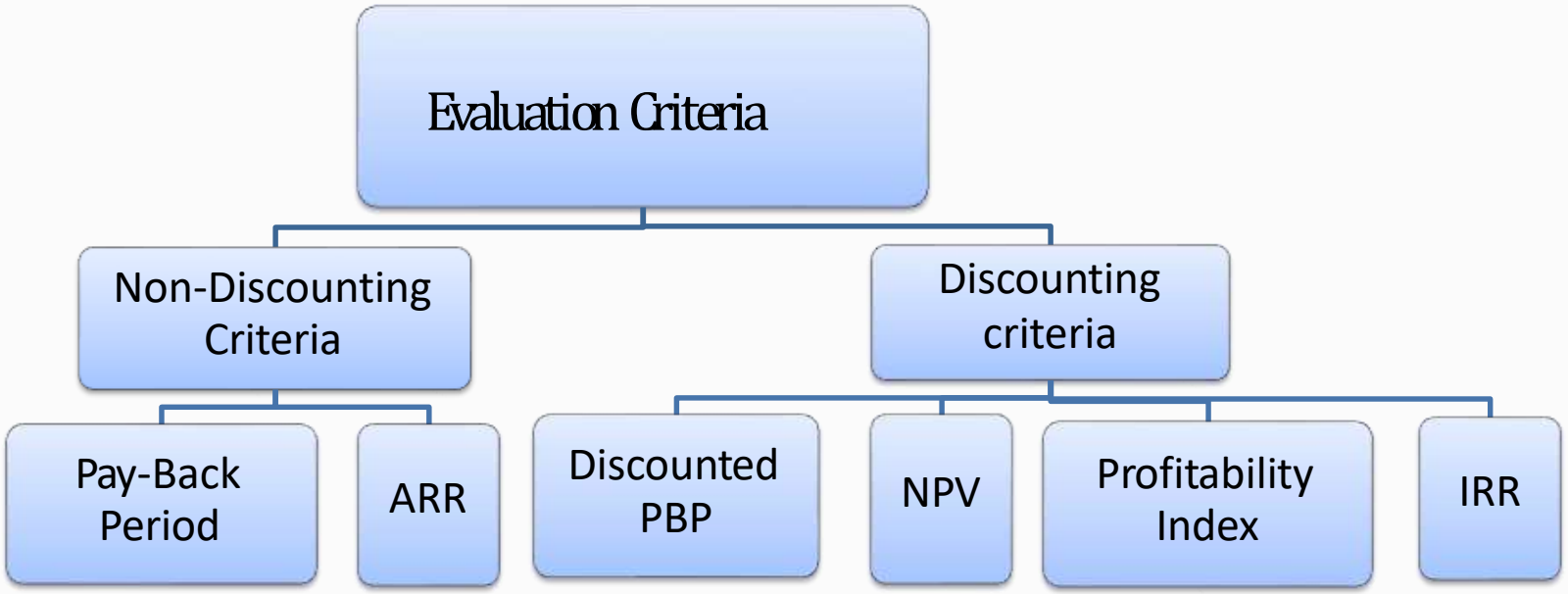
Therefore,

$FV = 10{,}000\,(1 + 0.045)^3$

$= 10{,}000\,(1.045)^3 = 10{,}000\,(1.14116612)$

= Rs. 11411.66 (at the end of the 3rd year)

Evaluation Criteria: Capital Investment Proposal



NON DISCOUNTING: PAY-BACK PERIOD

1. **Pay-Back Period Method-** It is defined as the number of years required to recover original cost invested in a project. It has two conditions

- **When cash inflow is constant every year**

  PBP= Cash outflow/cash inflow (p.a.)

- **When cash inflow are not constant every year**

$$\text{PBP} = \text{Completed years} + \frac{\text{Required inflow}}{\text{In flow of next year}} * 12$$

NON DISCOUNTING CRITERIA: AVERAGE RATE OF RETURN

2. Average Rate of Return Method - ARR means the average annual earning on the project. Under this method, profit after tax and depreciation is considered. The average rate of return can be calculated in the following two ways.

ARR on Average investment $= \frac{\text{Average Profit After Tax}}{\text{Average Investment}} * 100$

ARR on Initial investment $= \frac{\text{Average Profit After Tax}}{\text{Initial Investment}} * 100$

DISCOUNTING CRITERIA: PAY-BACK PERIOD

3. Discounted Pay-Back Period Method -

In discounted pay- back period method, the cash inflows are discounted by applying the present value factors for different time periods. For this, discounted cash inflows are calculated by multiplying the P.V. factors into cash inflows.

$$\text{Dis. PBP} = \text{Completed years} + \frac{\text{In flow of next year}}{} * 12$$

DISCOUNTING CRITERIA: NET PRESENT VALUE

4. Net Present Value Method :- It is the best method for evaluation of investment proposal. This method takes into account time value of money.

NPV= PV of inflows- PV of outflows
Evaluation of Net Present Value Method:- Projectwith the higher NPV should be selected.

Accept	NPV>0
if Reject	NPV<0
May or may not accept	NPV=0

DISCOUNTING CRITERIA: PROFITABILITY INDEX

5. Profitability Index Method - As the NPV method it also is shows that project is accepted or not. If Profitability index is higher than 1, the proposal can be accepted.

Accepted PI>1

Rejected PI<1

$$\text{Profitability index} = \frac{\text{Total Cash Inflows}}{\text{Total Cash Outflows}}$$

DISCOUNTING CRITERIA: INTERNAL RATE OF RETURN

6. Internal Rate of Return Method:- IRR is the rate of return that a project earns. The rate of discount calculated by trial and error , where the present value of future cash flows is equal to the present value of outflows, is known as the Internal Rate of Return.

$$IRR = \text{Higher Rate} - \frac{\text{NPV of Higher Rate}}{\text{Difference in cash flows}} * \text{Difference in Rate}$$

$$IRR = \text{Lower Rate} + \frac{\text{NPV of Lower Rate}}{\text{Difference in cash flows}} * \text{Difference in Rate}$$

EXAMPLE

The expected cash flows of a project are:-

Year	Cash Flows (Rs.)
1	20,000
2	30,000
3	40,000
4	50,000
5	30,000

The cash outflow is Rs. 1,00,000 The cost of capital is 10%

Calculate the following:

a) NPV

b) Profitability Index

c) IRR

d) Pay-back period

e) Discounted Pay-back Period

COMPUTATION OF NPV AND PI

Year	Cash Flows (Rs.)	PV Factors@10%	PV of Cash Flows (Rs.)
1	20,000	.909	18,180
2	30,000	.826	24,780
3	40,000	.751	30,040
4	50,000	.683	34,150
5	30,000	.620	18,600
	Total Cash Inflow		1,25,750
	Less: Cash Outflows		1,00,000
	NPV		25,750
	P.I.		1.2575

Computation of IRR

Year	Cash Flows (Rs.)	PV Factors @19%	PV of Cash Flows (Rs.)	PV Factors @18%	PV of Cash Flows (Rs.)
1	20,000	.84	16,800	.847	16,940
2	30,000	.706	21,180	.718	21,540
3	40,000	.593	23,720	.609	24,360
4	50,000	.499	24,950	.516	25,800
5	30,000	.42	12,600	.437	13,110
Total Cash Inflow			99,250		1,01,750
Less Cash Outflows			1,00,000		1,00,000
NPV			(-)750		(+)1750

COMPUTATION OF IRR CONTD...

$$IRR = \text{Higher Rate} - \frac{\text{NPV of Higher Rate}}{\text{Difference in cash flows}} * \text{Difference in Rate}$$

$$IRR = 19 - \frac{750}{2500} * 1 = 18.7\ \%$$

COMPUTATION OF PAY-BACK PERIOD

Year	Cash Flows (Rs.)	Cumulative Cash Flow
1	20,000	20,000
2	30,000	50,000
3	40,000	90,000
4	50,000	1,40,000
5	30,000	1,70,000

$$PBP = \text{Completed years} + \frac{\text{Required inflow}}{\text{2 Inflow of Next year}} * 1$$

$$= 3\text{years} + \frac{(1{,}00{,}000 - 90{,}000)}{50{,}000} * 12$$

$$= 3 \text{ years } 24 \text{months}$$

COMPUTATION OF DISCOUNTED PAY-BACK PERIOD

Year	Cash Flows (Rs.)	PV Factors@10%	PV of Cash Flows (Rs.)	Cumulative Cash Flows
1	20,000	.909	18,180	18,180
2	30,000	.826	24,780	42,960
3	40,000	.751	30,040	73,000
4	50,000	.683	34,150	1,07,150
5	30,000	.620	18,600	1,25,750

$$PBP = \text{Completed years} + \frac{\text{Required inflow}}{\text{2 Inflow of Next year}} * 1$$

$$= 3\text{years} + \frac{(1,00,000-73,000)}{34150} * 12$$

$$= 3 \text{ years } 9.5 \text{ months}$$

CONCLUSION

e

We have studied various evaluation criteria for capital budgeting generally an impression created that the firm should use NPV method for decision making.

Most of the large companies consider all the measures because each one provides somewhat different piece of relevant information to the decision maker.

Thank you