

JAIIB CAPSULE

Paper-3 AFM

MODULE

A

ACCOUNTING PRINCIPLES AND PROCESSES

MODULE

B

FINANCIAL STATEMENTS AND CORE BANKING SYSTEMS

MODULE

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FINANCIAL MANAGEMENT

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TAXATION AND FUNDAMENTALS OF COSTING



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JAIIB Paper 3: Accounting & Financial Management for Bankers

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JAIIB AFM Module A: Accounting Principles and Processes

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JAIIB AFM Module A Unit 1- Definition, Scope and Accounting Standards

Accounting

Accounting often is called the language of business. The basic **function of any language is to serve as a means of communication. In this, context, the purpose of accounting is to communicate or report the results of business operations** and the financial health of the organization.

Features of Accounting

- Accounting is an art of recording, classifying and summarising business transactions: it not only records the business transaction but also records them in an orderly manner. It also classifies business transactions according to their nature, before recording them in the books of account.
- Accounting also summarises the data, recorded in books of account, and presents them in a systematic way, in the form of:**

i) Trial Balance

ii) Profit and loss account and

iii) Balance sheet

- Accounting records the transactions in terms of money:** Accounting records business transactions by expressing them in terms of money. This makes the recorded data more meaningful. Events that cannot be expressed in money terms, are not recorded in the books of account.
- Accounting records only the transactions of a financial character
- Accounting also interprets the financial data

Purpose and Objectives of Accounting

- To Keep a systematic record
- To Ascertain the result of the operations
- To ascertain the financial position of the business
- To facilitate rational decision- making
- To satisfy the requirements of law (**Companies Act, Societies Act, Public Trust Act etc and also compulsory under the Sales Tax Act and Income Tax Act**)

Types of Accounting:

- Financial Accounting
- Cost Accounting

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Accounting Standards in India and Its Definition and Scope

The Institute of Chartered Accountants of India (ICAI), recognising the need to harmonise the diverse accounting policies and practices, constituted an '**Accounting Standards Board**' (ASB) on **21st April, 1977**. The main function of the ASB is to formulate accounting standards so that the council of ICAI may mandate such standards.

- ASB shall determine the broad areas in which accounting standards need to be formulated and the priority about the selection thereof.
- In the preparation of the accounting standards, the ASB will be assisted by study groups constituted to consider specific subjects. It will also hold a dialogue with the representatives of the government, public and private sector industries and other organisations, for ascertaining their views.
- Based in the above, an exposure draft of the proposed standard will be prepared and issued to its members for comments and the public at large.
- After taking into consideration the comments received, the exposure draft will be finalised by the ASB for submission to the council of ICAI.

A mandatory accounting standard, if not followed, requires the auditors, who are members of ICAI, to qualify their audit reports, failing which they will be guilty of professional misconduct. Both the SEBI and Companies Act 2013 require auditors of qualify the audit reports that do not conform to mandatory accounting standards.

Section 134(5) of the Companies Act 2013 also casts a responsibility on the board of directors to comply with mandatory accounting standards.

Under the Section 129(5) of the Companies Act 2013, where the financial statements do not comply with the accounting standards, such companies shall disclose the following:

- The deviation from the accounting standards
- The reasons for such a deviation
- The Financial effects, of any arising out of such a deviation.

Accountancy Standards

The Institute of Chartered Accountants of India (ICAI) has so far issued twenty-nine standards:

- (AS 1) Disclosure of Accounting Policies
- (AS 2) Valuation of Inventories



- (AS 3) Cash Flow Statements
- (AS 4) Contingencies and Events Occurring after the Balance Sheet Date
- (AS 5) Net Profit or Loss for the period, Prior Period and Extraordinary Items and Changes in less Accounting Policies
- (AS 6) Depreciation Accounting
- (AS 7) Accounting for Construction Contracts
- (AS 8) Accounting for Research and Development (deleted w.e.f. 1/4/2003)
- (AS 9) Revenue Recognition
- (AS 10) Accounting for Fixed Assets
- (AS 11) Accounting for the Effects of Changes in Foreign Exchange Rates
- (AS 12) Accounting for Government Grants
- (AS 13) Accounting for Investments
- (AS 14) Accounting for Amalgamations
- (AS 15) Accounting for Retirement Benefits in the Financial Statements of Employers
- (AS 16) Borrowing Costs
- (AS 17) Segment Reporting
- (AS 18) Related Party Disclosures
- (AS 19) Leases
- (AS 20) Earnings per Share
- (AS 21) Consolidated Financial Statements
- (AS 22) Accounting for Taxes on Income
- (AS 23) Accounting for Investments in Associates in Consolidated Financial Statements
- (AS 24) Discontinuing Operations
- (AS 25) Interim Financial Reporting
- (AS 26) Intangible Assets
- (AS 27) Financial Reporting of Interest in Joint Ventures
- (AS 28) Impairment of Assets
- (AS 29) Provisions, Contingent Liabilities and Contingent Assets



Apart from these, there are 3 not mandatory Accounting Standards:

- (AS 30) Financial Instruments; Recognition and Measurement
- (AS 31) Financial Instruments; Presentation
- (AS 32) Financial Instruments; Disclosures

Generally Accepted Accounting Principles of USA (US GAAP)

Generally accepted accounting principles, or GAAP, are a set of rules that encompass the details, complexities, and legalities of business and corporate accounting. The Financial Accounting Standards Board (FASB) uses GAAP as the foundation for its comprehensive set of approved accounting methods and practices.

U.S. law requires businesses that release financial statements to the public and companies that are publicly traded on stock exchanges and indices to follow GAAP guidelines, which incorporate 10 key concepts:

- **Principle of regularity:** GAAP-compliant accountants strictly adhere to established rules and regulations.
- **Principle of consistency:** Consistent standards are applied throughout the financial reporting process.
- **Principle of sincerity:** GAAP-compliant accountants are committed to accuracy and impartiality.
- **Principle of permanence of methods:** Consistent procedures are used in the preparation of all financial reports.
- **Principle of non-compensation:** All aspects of an organization's performance, whether positive or negative, are fully reported with no prospect of debt compensation.
- **Principle of prudence:** Speculation does not influence the reporting of financial data.
- **Principle of continuity:** Asset valuations assume the organization's operations will continue.
- **Principle of periodicity:** Reporting of revenues is divided by standard accounting time periods, such as fiscal quarters or fiscal years.
- **Principle of materiality:** Financial reports fully disclose the organization's monetary situation.
- **Principle of utmost good faith:** All involved parties are assumed to be acting honestly.

GAAP compliance makes the financial reporting process transparent and standardizes assumptions, terminology, definitions, and methods. External parties can easily compare financial statements issued by GAAP-compliant entities and safely assume consistency, which allows for quick and accurate cross-company comparisons.



Because GAAP standards deliver transparency and continuity, they enable investors and stakeholders to make sound, evidence-based decisions. The consistency of GAAP compliance also allows companies to more easily evaluate strategic business options.

These three rules are:

- **Basic accounting principles and guidelines:** These 10 guidelines separate an organization's transactions from the personal transactions of its owners, standardize currency units used in reports, and explicitly disclose the time periods covered by specific reports. They also draw on established best practices governing cost, disclosure, going concern, matching, revenue recognition, professional judgment, and conservatism.
- **Rules and standards issued by the FASB and its predecessor, the Accounting Principles Board (APB):** The FASB issues an officially endorsed, regularly updated compendium of principles known as the ***FASB Accounting Standards Codification***. The compendium includes standards based on the best practices previously established by the APB. These organizations are rooted in historic regulations governing financial reporting, which were implemented by the federal government following the 1929 stock market crash that triggered the Great Depression.
- **Generally accepted industry practices:** There is no universal GAAP model followed by all organizations across every industry. Rather, particular businesses follow industry-specific best practices designed to reflect the nuances and complexities of different areas of business. For example, banks operate using a different set of accounting and financial reporting methods than those used by retail businesses.

International Financial Reporting Standard (IFRS)

The **International Financial Reporting Standards (IFRS)** are accounting standards that are issued by the **International Accounting Standards Board (IASB)** with the objective of providing a common accounting language to increase transparency in the presentation of financial information.

What is IASB?

- **The International Accounting Standards Board (IASB), is an independent body formed in 2001 with the sole responsibility of establishing the International Financial Reporting Standards (IFRS).**
- It succeeded the International Accounting Standards Committee (IASC), which was earlier given the responsibility of establishing the international accounting standards. IASB is based in London. It has also provided the 'Conceptual Framework for Financial Reporting' issued in September 2010 which provides a conceptual understanding and the basis of the accounting practices under IFRS.

The Principal Objective of the IFRS Foundation are:



- To Develop a single set of high quality, understandable, enforceable and globally accepted International Financial Reporting Standards (IFRSs) through its standard-setting body, the International Accounting Standard Board (IASB);
- To promote the use and rigorous applications of those standard;
- To take account of the financial reporting needs of emerging economics and small and medium-sized entities (SMEs); and
- To promote and facilitate adoption of IFRSs, being the standards and interpretations issued by the IASB, through the convergence of national accounting standards and IFRSs.

List of International Financial Reporting Standards (IFRS)

Standard No. -Standard Title

- IFRS 01- First-time Adoption of International Financial Reporting Standards
- IFRS 02- Share-based Payment
- IFRS 03- Business Combinations
- IFRS 04- Insurance Contracts
- IFRS 05- Non-current Assets Held for Sale and Discontinue Operations
- IFRS 06- Exploration and Evaluation of Mineral Resources
- IFRS 07- Financial Instruments: Disclosures
- IFRS 08- Operating Segments
- IFRS 09- Financial Instruments
- IFRS 10- Consolidated Financial Statements
- IFRS 11- Joint Arrangements
- IFRS 12- Disclosure of Interests in Other Entities
- IFRS 13- Fair Value Measurement
- IFRS 14- Regulatory Deferral Accounts
- IFRS 15- Revenue from Contracts with Customers
- IFRS 16- Leases
- IFRS 17- Insurance Contracts
- IAS 1- Presentation of Financial Statements
- IAS 2- Inventories
- IAS 7- Statement of Cash Flows
- IAS 8- Accounting Policies, Changes in Accounting Estimates and Errors
- IAS 10- Events after the Reporting Period
- IAS 11- Construction Contracts
- IAS 12- Income Taxes
- IAS 16- Property, Plant, and Equipment
- IAS 17- Leases
- IAS 18- Revenue
- IAS 19- Employee Benefits
- IAS 20- Accounting for Government Grants and Disclosure of Government Assistance
- IAS 21- The Effects of Changes in Foreign Exchange Rates



- IAS 23- Borrowing Costs
- IAS 24- Related Party Disclosures
- IAS 26- Accounting and Reporting by Retirement Benefit Plans
- IAS 27- Separate Financial Statements
- IAS 28- Investments in Associates and Joint Ventures
- IAS 29- Financial Reporting in Hyperinflationary Economies
- IAS 32- Financial Instruments: Presentation
- IAS 33- Earnings per Share
- IAS 34- Interim Financial Reporting
- IAS 36- Impairment of Assets
- IAS 37- Provisions, Contingent Liabilities, and Contingent Assets
- IAS 38- Intangible Assets
- IAS 39- Financial Instruments: Recognition and Measurement
- IAS 40- Investment Property
- IAS 41- Agriculture

Differences between US GAAP and IFRS

Differences between IFRS and U.S. GAAP		
Issue	IFRS	U.S. GAAP
Documents included in the financial statements	Balance sheet Income statement Changes in equity Cash flow statement Footnotes	Balance sheet Income statement Statement of comprehensive income Changes in equity Cash flow statement Footnotes
Balance sheet	Requires split-up of current and noncurrent assets and liabilities	Commends separation of current and noncurrent assets and liabilities
Deferred taxes	Shown as distinct line items on the balance sheet	Contained within with assets and liabilities
Minority interests (usually ownership positions by significant but not majority investors)	Encompassed in equity as a separate line item	Included in liabilities as a distinct line item
Extraordinary items (events that don't occur on a regular basis)	Prohibited	Allowed if they're uncommon and infrequent
Bank overdrafts	May be involved in cash if used in cash management	Charged as a financing activity

Transfer Pricing

Transfer pricing is the method used to sell a product from one subsidiary to another within a company. This approach is used when the subsidiaries of a parent company are measured as separate profit centers. Transfer pricing impacts the purchasing



behavior of the subsidiaries, and may have income tax implications for the company as a whole. **Here are the key issues:**

- **Revenue basis**
- **Preferred customers**
- **Preferred suppliers**

Traditional Methods

- **Market rate transfer price.** The simplest and most elegant transfer price is to use the market price. By doing so, the upstream subsidiary can sell either internally or externally and earn the same profit with either option. It can also earn the highest possible profit, rather than being subject to the odd profit vagaries that can occur under mandated pricing schemes.
- **Adjusted market rate transfer price.** If it is not possible to use the market pricing technique just noted, then consider using the general concept, but incorporating some adjustments to the price. For example, you can reduce the market price to account for the presumed absence of bad debts, since corporate management will likely intervene and force a payment if there is a risk of non-payment.
- **Negotiated transfer pricing.** It may be necessary to negotiate a transfer price between subsidiaries, without using any market price as a baseline. This situation arises when there is no discernible market price because the market is very small or the goods are highly customized. This results in prices that are based on the relative negotiating skills of the parties.
- **Contribution margin transfer pricing.** If there is no market price at all from which to derive a transfer price, then an alternative is to create a price based on a component's contribution margin.
- **Resale Price Methods:** The Resale Price (RP) while similar to the Cost plus method, is found by working backwards from the transactions taking place at the next stage in the supply chain and is determined by subtracting an appropriate gross mark-up from the sale price, to an unrelated third party, with the appropriate gross margin being determined by examining the



conditions, under which, the goods or services are sold and comparing the said transaction to other third party Transactions.

- **Cost-plus transfer pricing.** If there is no market price at all on which to base a transfer price, you could consider using a system that creates a transfer price based on the cost of the components being transferred. The best way to do this is to add a margin onto the cost, where you compile the standard cost of a component, add a standard profit margin, and use the result as the transfer price.
- **Cost-based transfer pricing.** Have each subsidiary transfer its products to other subsidiaries at cost, after which successive subsidiaries add their costs to the product. This means that the final subsidiary that sells the completed goods to a third party will recognize the entire profit associated with the product.

JAIIB AFM Module A Unit 2- Basic Accountancy Procedures

Introduction

As with language, accounting has many dialects. There are differences in terminology. In dealing with the framework of accounting theory, one is confronted with a serious problem arising from the differences in terminology. A number of words and terms have been used by different writers to express and explain the same idea or notion.

Accounting Concepts	
At the Recording Stage	At the Reporting Stage
(a) Cost concept	(a) Going concern concept
(b) Money measurement concept	(b) Matching concept
(c) Business entity concept	(c) Accounting period concept
(d) Realisation concept	(d) Convention of Conservatism
(e) Dual aspect concept	(e) Convention of Full disclosure
(f) Historical records concept	(f) Convention of Materiality
	(g) Convention of Consistency

The various terms used for describing the basic ideas of accounting are: concepts, postulates, propositions, basic assumptions, underlying principles, fundamentals, conventions, doctrines, rules, etc.

Concepts of Accountancy

Accounting is often called the language of business through which a business house normally communicates with the outside world. In order to make this language



intelligible and commonly understood by all, it is necessary that it is based on certain uniform scientifically laid down standards. These standards are termed as accounting principles.

Concepts

There following are the main accounting concepts

Cost Concepts: Every business transactions is recorded in the books of accounts at cost price, e.g, the machinery is recorded in the books by that amount which is paid to the supplier plus the expenses of bringing and installing the machinery which are necessary to put it in working order.

Applications

- Fixed assets are kept at the cost of purchase and not their market value.
- Every transaction is recorded with the present value and not any future value.
- Unrealised gains are ignored.
- An item, that has no cost, is not taken in books

Money measurement concept: Every transaction that is recorded in books of accounts must be measured in terms of money. All the transactions are converted into a common form, which is money. Example, quarterly production, sales, wages, etc, all are converted in terms of money.

Applications

- Health of a proprietor or manager is not taken into the books although it may have a great impact on the overall business.
- We do not include any inflation or deflation or deflation in the value of any asset.

Business entity Concept: This concept separates the entity of the proprietor from the business transactions. The capital contributed by the owner is a liability for the business because business, which is an artificial person, is different from owner.

Applications

- Any money withdrawn by the proprietor is treated separately as drawings.
- Profit is a liability while loss is an asset.

Realisation concept: This concept tells us when is the revenue treated as realized or earned. It is treated as realized or earned on that date when the property in the goods pass to the buyer and he becomes legally liable to pay.

Applications

- No future income is considered.
- Goods sold on approval will not be included in sales but taken at cost only.



- The rules of revenue recognition determines that the earning process should be either complete or near completion.

Historical records Concept: In accounts, The historical cost principle states that businesses must record and account for most assets and liabilities at their purchase or acquisition price. In other words, businesses have to record an asset on their balance sheet for the amount paid for the asset.

Going concern concept: This concept indicates that the business is a going concern and the transactions are recorded accordingly. If an expense is incurred and its utility is consumed during the year, then it is treated as an expense, otherwise it is recorded as an asset.

Applications

- The fixed assets are valued at cost and not at market value.
- Current assets are valued at cost or the market value whichever is less.
- Depreciation is provided based on the total number of years of life of asset. Balances of one year are carried forward to the next year.
- Reserves and provisions are created for any future liability.

Matching concept: This concept explains that we have to match the income of a certain period with expenses of that period only. The term matching refers to the close relationship that exists between certain expired cost and revenues realized as a result of incurring those costs. The justification of the matching concept arises from accounting period concept.

Applications

- All adjustments regarding prepaid expenses, outstanding expenses are made in the final accounts.
- Deferred revenue expenditure concept arises due to this.

Accounting period concept: An accounting period is the span of time covered by a set of financial statements. This period defines the time range over which business transactions are accumulated into financial statements, and is needed by investors so that they can compare the results of successive time periods.

Main Conventions of Accounting

Accounting of full disclosure: Entries are made in such a way, that they provide honestly all information relating to the activities of the business. The records should not conceal anything from outsider. Secret reserves should not be maintained as per this convention.

Convention of materiality: All material information, must be recorded. What is material depends upon the value of the item involved and circumstances of individual case of business. Exp: Paise is not recorded.



Convention of conservatism: While recording transactions, all possible losses must be taken into consideration, while all anticipated profits should be ignored. This is also called the principle of prudence.

Convention of consistency: If a method is selected for recording purposes, it must be regularly followed in the future also. Whenever it is necessary to change, the impact of such change must be given separately.

Going Concern Entity

The going concern concept of accounting implies that the business entity will continue its operations in the future and will not liquidate or be forced to discontinue operations due to any reason. A company is a going concern if no evidence is available to believe that it will or will have to cease its operations in foreseeable future.

An example of the application of going concern concept of accounting is the computation of depreciation on the basis of expected economic life of fixed assets rather than their current market value. Companies assume that their business will continue for an indefinite period of time and the assets will be used in the business until fully depreciated. Another example of the going concern assumption is the prepayment and accrual of expenses. Companies prepay and accrue expenses because they believe that they will continue operations in future.

Double Entry System

There are two systems of keeping records, i.e.

- Single entry system and
- Double entry system

Single entry system

- The single entry system appears to be time saving and economical but it is unscientific as under this system some transactions are not recorded at all, whereas some other transactions are recorded only partially. Under the double entry system of bookkeeping, both aspects of each and every transaction are recorded. This is known as the dual aspect analysis. Under the single entry system, only one aspect of the transaction, i.e. personal is recorded and the other aspect is ignored.
- For example, in case goods are sold on credit to a customer, only the customer's account is opened and debited but the goods account is not opened. Under this system, only the accounts which are absolutely necessary are maintained. Other accounts, i.e. nominal and real accounts are not opened except cash. The accounts maintained under this system are incomplete and unsystematic and, therefore, the system is not reliable. The system is followed by small business firms.

Double Entry System

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- The double entry system is based on scientific principles and is, therefore, used by most of the business houses. The system recognises the fact, that every transaction has two aspects and records both the aspects of each and every transaction.
- Under this system, in every transaction, an account is debited and some other account is credited. The crux of accountancy lies in finding out which of the two accounts are affected by a particular transaction and out of these two accounts, which account is to be debited and which account is to be credited.

Name of the Account							
Dr.				Cr.			
Date	Particulars	J.F.	Amount (₹)	Date	Particulars	J.F.	Amount (₹)

An account is vertically divided into two halves just like the English alphabet 'E'. The left hand side is

Principles of Double Entry System The following are the main principles of double entry system:

- For every transaction, two parties must be interested.
- Every business transaction has two aspects, one of receiving the benefit and the other of giving it. In simple words, 'double entry' system means 'every debit has a corresponding credit'.
- Both the aspects, are recorded in the books of account.
- The two-fold effect of a business transaction is recorded by debiting one account and crediting the other account at the same time.

Merits of Double Entry System

- It keeps a complete record of business transactions. Both, the personal accounts and impersonal accounts are kept. The entire information regarding the value of assets and profits earned during the year can be easily obtained.
- It provides a check on the arithmetical accuracy of both the accounts, since every debit has corresponding credit to it and vice versa.
- The detailed profit and loss account can be prepared to show the profits earned or the loss suffered during any given period.
- The system makes possible the comparison of purchases as well as sales, expenditure, income, etc., of a current year, with those of the previous years, thus enabling a businessman to control his business activities.
- The balance sheet can be prepared at any specified point of time or any date showing the actual amount of assets, liabilities and capital.
- The system being a scientific one, prevents commission of fraud and, if a fraud is committed, it can be easily detected.
- The accurate details, with regard to any account, can be easily obtained.



System of Keeping Recording

Single entry system: A single entry system records each accounting transaction with a single entry to the accounting records, rather than the vastly more widespread double entry system. The single entry system is centered on the results of a business that are reported in the income statement.

Double entry system: The double-entry system of accounting or bookkeeping means that for every business transaction, amounts must be recorded in a minimum of two accounts. The double-entry system also requires that for all transactions, the amounts entered as debits must be equal to the amounts entered as credits.

Principles of Double Entry system

The following are main principles of double entry system:

- For every transaction, two parties must be interested
- Every business transaction has two aspects, one of receiving the benefit and the other of giving it. In simple words, “Double entry” system means “every debit has a corresponding credit”.
- Both the aspects, are recorded in the books of account.
- The two-fold effect of a business transaction is recorded by debiting one account and crediting the other account at the same time.

Principle of Conservatism

The conservatism principle is the general concept of recognizing expenses and liabilities as soon as possible **when there is uncertainty** about the outcome, but to only recognize revenues and assets when they are assured of being received. Thus, when given a choice between several outcomes where the probabilities of occurrence are equally likely, you should recognize that transaction resulting in the **lower amount of profit, or at least the deferral of a profit**. Similarly, if a choice of outcomes with similar probabilities of occurrence will impact the value of an asset, recognize the transaction resulting in a lower recorded asset valuation.

Under the conservatism principle, if there is uncertainty about incurring **a loss, you should tend toward recording the loss**. Conversely, if there is uncertainty about recording a gain, you should not record the gain.

The conservatism principle can also be applied to recognizing estimates. **For example**, if the collections staff believes that a cluster of receivables will have a 2% bad debt percentage because of historical trend lines, but the sales staff is leaning towards a higher 5% figure because of a sudden drop in industry sales, use the 5% figure when creating an allowance for doubtful accounts, unless there is strong evidence to the contrary.

Accrual Concept

The accrual concept makes a distinction the receipt of cash and right to receive, it and the payment of cash and the legal obligation to pay it. In actual business operations, the



obligation to pay and the actual movement of cash may not coincide. The accrual recognises this distinction. In connection with the sale of goods, revenue may be received.

- Before the right to receive arise, or
- After the right to receive has been created.

JAIIB AFM Module A Unit 3- Maintenance of Cash/ Subsidiary Books and Ledger

Record Keeping Basics

Journal

The form of a journal contains a column Ledger folio. Journal records each transaction. However, if anyone wants to find out transactions affecting a personal account or an expense account, he will have to turn over pages of journal, add all debits and credits and then find out the balance of a particular account.

Cash Book

The Book that keeps records of all cash transactions, i.e. cash receipts and cash payments is called a cash book. Its ruling is like a ledger account and is divided into two sides, viz, debit and credit. All receipts are recorded on the debit side whereas all payment are recorded on the credit side. Since it serves the function of cash account, there is no need for opening cash account in the ledger.

Accounting cycle includes the following:

Recording: In the first instance, all transactions should be recorded in the journal or the subsidiary books as and when they take place.

Classifying: All entries in the journal or subsidiary books are posted to the appropriate ledger account to find out at a glance the total effect of all such transactions in a particular account.

Summarising: The last stage is to prepare the trial balance and final accounts with view to ascertain the profit or loss made during a particular period and the financial position of the business on a particular date.

Ledger

The Ledger is the principal book of accounts where similar transactions relating to a particular person or property or revenue or expense are recorded. In other words, it is a set of accounts. It contains all accounts of the business enterprise whether real, nominal or personal. **The main function** of a ledger is to classify or sort out all the items appearing in the journal or the other subsidiary books under their appropriate



accounts, so that at the end of the accounting period each account will contain the entire information of all the transactions relating to it in a summarized or condensed form.

Relationship Between 'Journal' and 'Ledger'

BASIS FOR COMPARISON	JOURNAL	LEDGER
Meaning	The book in which all the transactions are recorded, as and when they arise is known as Journal.	The book which enables to transfer all the transactions into separate accounts is known as Ledger.
What is it?	It is a subsidiary book.	It is a principal book.
Also known as	Book of original entry.	Book of second entry.
Record	Chronological record	Analytical record
Process	The process of recording transactions into Journal is known as Journalizing.	The process of transferring entries from the journal to ledger is known as Posting.
How transactions are recorded?	Sequentially	Account-wise
Debit and Credit	Columns	Sides
Narration	Must	Not necessary.
Balancing	Need not to be balanced.	Must be balanced.

Journalise the following transactions and post them in their respective ledger accounts.

2016		Rs.
May 2	Paid interest to Loan	4,000
May 3	Ramesh who owed Rs.3,000 has become insolvent. He pays 50 paise in rupee in full settlement.	
May 4	A cheque received from Ranjan deposited into bank was returned dishonored.	6,300
May 5	Wood used for making office furniture.	5,000
May 21	Due from Rama are bad debts.	600
May 25	Purchased building and issued cheque.	4,300

**Journal Entry**

Date	Particulars	L.F.	Dr. Rs.	Cr. Rs.
2016 May 2	Interest to Loan A/c Dr. To Cash A/c (Being interest payment made on loan)		4,000	4,000
May 3	Cash A/c Dr. Bad Debts A/c Dr. To Ramesh A/c (Being 50 paise in rupee received from Ramesh out of the debt of Rs.3,000 in full settlement)		1,500 1,500	3,000
May 4	Ranjan A/c Dr. To Bank A/c (Being the cheque deposited into bank dishonoured)		6,300	6,300
May 5	Furniture A/c Dr. To Purchases A/c (Being the wood used in making office furniture)		5,000	5,000
May 21	Bad Debts A/c Dr. To Rama A/c (Being the bad debts written off)		600	600
May 25	Building A/c Dr. To Bank A/c (Being the goods purchased and payment made through cheque)		4,300	4,300

Account Categories

Classification of Accounts: Accounts are broadly classified into two classes:

- Personal Accounts and
- Impersonal Accounts

The Letter is further sub-divided into:

- Real Accounts
- Nominal Accounts

Personal Accounts



These accounts show the transactions with customers, suppliers, moneylenders, banks and the owner.

Personal accounts can take the following forms:

- **Natural Personal accounts:** The term natural person means persons who are the creation of God. For example, proprietor's account, supplier's account, receiver's account (Abhinav a/c, Alpha A/c).
- **Artificial personal accounts:** These accounts include the accounts of corporate bodies or institutions that are recognised as persons in business dealings. Example: firm's a/c, club a/c.
- **Representative personal account:** These are accounts that represent a certain person or group of person. Example: Salary outstanding, Rent prepaid etc.

The following list indicates, some more of the usual accounts coming under each category: (Personal accounts)

- Bank (an artificial Person)
- Tata Iron & Steel Co. (a Company)
- Alpha (an Individual)
- Capital (Abhinav –owner)
- Bank loan (an artificial person)
- Rent outstanding (representative personal account)

Impersonal Accounts

Real Accounts

Real accounts may be of the following types:

Tangible real accounts: These are accounts of such things that are tangible, i.e, which can be seen, touched, physically. Example: Land, building, cash etc.

Intangible real accounts: These account represent such things that cannot be touched. Example: Trademarks, Patent right etc.

The following list indicates, some more of the usual accounts coming under each category: (Real accounts)

- Plant and machinery
- Investment
- Land and building
- Stock in hand



- Bill receivable
- Trademarks
- Cash

Nominal Accounts

Nominal accounts are opened in the books to explain the nature of the transactions. Example: Salary is paid to the employees, rent is paid to the property owner etc.

There following list indicates, some more of the usual accounts coming under each category: (Nominal accounts)

- Interest
- Salaries
- Rent
- Carriage
- Commission received
- Insurance
- Discount received
- Wages
- Credit and Debit Concepp

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Accounting and columnar accounting mechanics

Cash book may be defined as the record of transactions concerning cash receipts and cash payments. In other words, in cash book, all transactions (i.e receipts and payment of cash) are recorded as soon as they take place. Cash book is in the form of an account and actually it serves the purpose of a 'Cash Account'.

Cash book thus serves the purpose of a book of original entry as well as that of a ledger account. A cash book has the following features:

- Only cash transactions are recorded in the cash book.
- It performs the functions of both, the journal and the ledger, at the same time.
- All cash receipts are recorded in the debit side and all cash payments are recorded in the credit side.
- It records only one aspect of transaction i.e, cash.
- All cash transactions are recorded chronologically in the cash book.

Types of Cash book



Simple (Single column) cash book: This cash book will only record cash transactions. The cash coming in (receipts) will be on the left and the cash payments will be on the right. And since we will record all cash transactions here there is no need for a cash ledger account.

Date	Particulars	L.F	Receipt No.	Amount	Date	Particulars	L.F.	Vr. No.	Amount
------	-------------	-----	-------------	--------	------	-------------	------	---------	--------

Date: The date on which cash is received or paid is entered in this column.

Particulars: The name of the account in respect of which the amount is received or paid is shown.

LF (Ledger folio): The column shows page number of the ledger where the entry has been posted.

Two Column Cash Books

Here instead of one column, we have an additional column for discounts. So along with the cash transactions, we will also record the discounts in the same cash book. So both discounts received and the discount that is given is recorded here. If any organization is in a general practice of giving or receiving discounts this is the preferable option.

Discount is a nominal account – so the discount is given (loss) is on the debit side and discount received (profit) is on the credit side. At the end of the period, we balance both columns and transfer the closing balances.

Prepare a two column cash book from the following entries

Cash in Hand – 15000

Received from ABC – 4800; Discount – 200

Goods bought for cash 1500

Cash paid to LMN – 2400; Discount – 100

Cash Book

Sr No	Particulars	Cash	Discount	Sr No	Particulars	Cash	Discount	Sr No
1	To Bal b/d	15000		1	By Goods Purchase A/c	1500		



2	To ABC A/c	4800	200	2	LMN A/c	2400 0	1000	
					By Bal c/d	5700		
		1980 0	200			2550 0	1000	
	To Bal b/d	5700						

Three Column Cash Books

This cash book has the cash, the discount and additionally the bank columns in it. Since the development of banking most firms, these days prefer to deal in cheques or other such bills of exchange. And so having a bank column in your cash book makes things concise and simpler to understand.

So when you receive a cheque and you deposit it in the bank the same day you make the entry in the bank column (the debit side in this case). But say you send the cheque later (not the same day) then this will be a contra entry. A contra entry is transactions that happen between a cash account and a bank account. Ultimately your Cash & Bank balance remains the same, the money just moves around.

Petty Cash Book

In a firm, there are usually cash transactions happening in all the departments. These we will record in one of the above formats of cash books. But there are many cash transactions happening for very small amounts. Sometimes there are dozens of such transactions that occur in just one day. These are known as petty transactions. Examples are expenses for postage, stationery, traveling, food bills, etc.

So since the number of such transactions tends to be very high we maintain a separate cash book for them – the petty cash book. Such a cash book is maintained by the petty cashier (who in most cases also handles the petty cash).

Two types of petty cash book:

- Simple petty cash Book
- Columnar Petty cash Book

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Journalising

Journalising refers to recording business transactions systematically and in a summarised form in the journal. It means a process of entering the twofold effects of transactions in the form of debit and credit in the journal.

Date	Particulars	L.F	Debit Amount	Credit Amount
(i)	(ii)	(iii)	(iv)	(v)

Date: In the first column the date of the transaction is entered, the year is most probably written on the top of the column than to repeat it every day.

Particulars: Here the accounting entry is written in a summarised form of debit and credit. The names of the accounts involved in the transaction are written in the journal entry.

On the first line, the account is debited, the word "Dr." is written at the right end of the same line of account debited.

On the second line, the account credited is written with a prefix "To" after leaving a little space towards the start.

Immediately below the entry, a small explanation of the transaction called 'narration' is written. The narration begins with the word "Being".

Ledger Folio No. (L.F.): In this column, the page number of the Ledger in which the journal entry is posted, is recorded. This also helps in easy cross verification and reference in the future.

Debit Amount: The amounts to be debited to the accounts concerned or involved are written.

Credit Amount: The amounts to be credited to the accounts concerned or involved are written.

Rules for Journalising Transactions: (Golden rules of Accountancy)

Personal Account: It relates to persons (natural or legal) with whom a business keeps dealings.

Rule: Debit the receiver and Credit the giver.

E.g. Goods worth Rs. 5000/- sold to Alpa. Here, because Alpa is the receiver of goods so it is to be debited.

Real Account: It relates to property or goods which may come or go from the business.

Rule: Debit what comes in and Credit what goes out.

E.g. Goods worth Rs. 7000/- sold on cash. Here, cash a/c is to be debited because cash flows out.



Nominal Account: It relates to business expenses, losses, incomes, and gains.

Rule: Debit all the expenses or losses and Credit all the incomes, gains or profits.

E.g. Paid Rs. 2000/- as commission to the agent. Here, commission a/c is debited because it is a business expense.

Solved Example for You

Question: Journalise the following transactions in the Journal of Mr. Abhinav for the year 2018

- January 1 – Paid rent Rs. 4000/-
- January 2 – Sold goods to Harsh for Rs. 10,000/-

Answer:

In the Journal of Mr. Abhinav

Date	Particulars	Debit Amount	Credit Amount
2018 01/01	Rent A/c Dr. To Cash A/c (Being rent paid)	4000	4000
02/01	Harsh A/c Dr. To Goods A/c (Being goods sold to Harsh on credit)	10,000	10,000
Total		14,000	14,000

JAIIB AFM Module A Unit 4- Bank Reconciliation Statement

Recording Transactions in cash Book

Record the following transactions in a bank column cash book for December 2019:



		₹
01	Started business with cash	80,000
04	Deposited in bank	50,000
10	Received cash from Abhinav	1,000
15	Bought goods for cash	8,000
22	Bought goods by cheque	10,000
25	Paid to Alpa by cash	20,000
30	Drew from Bank for office use	2,000
31	Rent paid by cheque	1,000

Cash book									
Dr.					Cr.				
Date	Receipts	L.F.	Cash ₹	Bank ₹	Date	Payments	L.F.	Cash ₹	Bank ₹
2019					2019				
01 Dec	Capital		80,000		04 Dec	Bank	C		50,000
04 Dec	Cash	C		50,000	15 Dec	Purchases		8,000	
10 Dec	Abhinav		1,000		22 Dec	Purchases			10,000
30 Dec	Bank	C	2,000		25 Dec	Alpa		20,000	
					30 Dec	Cash	C		2,000
					31 Dec	Rent			1,000



					31 Dec	Balance c/d		5,000	37,000
			83,000	50,000				83,000	50,000

Cash Book and Passbook

BASIS FOR COMPARISON	CASH BOOK	PASSBOOK
Meaning	A book that keeps a record of cash transactions is known as cash book.	A book issued by the bank to the account holder that records the deposits and withdrawals is known as passbook.
Prepared by	Firms	Bank
Side affected	Receipts will be shown in the debit side while payments are entered in credit side.	Deposits will be shown in credit side while withdrawals are shown in debit side.
Preparation	Discretionary	Compulsory
Recording of cheque deposited for collection	Date of deposit	Date on which the amount is actually collected from the debtor's bank
Recording of cheque issued to the creditor	Date of issue.	When the amount is paid by the bank to the creditor.
What do the balances reflect?	Debit balance shows cash at bank while the credit balance shows overdraft.	Debit balance shows overdraft while the credit balance shows cash at bank.

Understanding Reconciliation

The Bank statement is received periodically, say every month. We check it for clerical and if any errors are found, we obtain a revised statement containing no errors. ***The balance is this statement gives us a firm starting point to proceed for:***

- Finding out entries which do not requires change in cashbook (these entries are present in the cashbook but not in the bank statement). These entries give us the 'Adjusted bank balance'.
- Finding out clerical mistake in our cashbook and rectifying them.



- Finding out entries which require change in our cashbook (these entries are present in the statement but not in the cashbook).

Preparing Reconciliation Statement

Based on these 3 steps, we can prepare a statement called "Bank Reconciliation". It is pertinent to note that step 1 gives the adjusted bank balance which is a national figure and not the actual balance in the account with in bank while step 2 and 3 result in actually changing the balance in the cashbook by correction of errors and posting of missing entries. This cash book balance should be equal to the adjusted bank balance as arrived in step 1. This is balance which goes to the trial balance and balance sheet.

Bank Reconciliation Statement as in_____

Closing balance in bank statement	Rs.....
Adjustments to the balance in the bank statement	Rs
(a)Add: cheque deposited but not yet credited	Rs
(b)Subtract: Cheque issued but not presented to the bank for payment	
Adjusted balance in the bank statement	Rs A

Balance as per cashbook	Rs.....
Adjustment made to cashbook	Rs.
(a)Add or subtract: clerical errors	
(b) Add: Credit entries shown in the bank statement but not appearing in cash book	Rs.....
	Rs.
(c)Subtract: Debit entries shown in the bank statement but not appearing in cashbook	
Adjusted (corrected) cashbook balance	Rs. B

Need for Preparing a Bank Reconciliation Statement

- Accuracy
- Check on the Entries
- Rectifying Incorrect Entries
- Updated Cash Book



- Detection of Delays
- Check on the Dishonest Behavior of Employees

Example:

The cash book of Mr Abhinav shows Rs 8364 as the balance at the bank as on 31 December 2018, but you find this does not agree with the balance as per the bank pass book, which shows a balance of Rs 15534.

On scrutiny, you find the following discrepancies:

- On 1st December, the payment side of the cash book was undercast by Rs100
- A cheque of Rs 131 issued on 25th December, was not taken in the bank column.
- One deposit of Rs 150 was recorded in the cash book as if there is no bank column therein.
- On 18th December, the debit balance of Rs 1526 as on the previous day, was brought forward as credit balance.
- Of the total cheque, amounting to Rs 11,514 drawn in the last week of December, cheques aggregating to Rs 7815 were encashed in December.
- Dividend of Rs 250, collected by bank and, subscription of Rs 100, paid by it, were not recorded in the cash book
- One out-going cheque of Rs 350 was recorded twice in the cash book.

Rough working: Correction of cash book for errors

Item	Debit	Credit
Deposit entry (shown in cash column)	150	
Wrong carry forward of balance	3052	
Outgoing cheque recorded twice	350	
Undercasting payment side		100
Cheque issued		131
Total	3552	231

The bank reconciliation statement will be as under:



Closing balance in bank statement	Rs 15534
Adjustments to the balance in the bank statement	
(a) Add: cheque deposited but not yet credited	
(b) Subtract: Cheque issued but not presented to the bank for payment	Rs 3699
Adjusted balance in the bank statement	Rs 11835 A

Balance as per cashbook	Rs 8364
Adjustment made to cashbook	
(a) Add or subtract: clerical errors	Rs. 3321
(b) Add: Credit entries shown in the bank statement but not appearing in cash book	Rs. 250
(c) Subtract: Debit entries shown in the bank statement but not appearing in cashbook	Rs. -100
Adjusted (corrected) cashbook balance	Rs. 11835 .B

How to prepare a Bank Reconciliation statement when extracts of cash Book and Pass Book are given

When the cash book and pass book abstracts are given, the following points should be noted.

- Find out the period for which both the abstracts are given
- Compare the cash book debit side with the pass book credit side and the cash book credit side with the pass book debit side.
- When the period for which both the abstracts are given is common, i.e. the cash book abstract relates to January and the pass book abstract is also given for January, take into account only uncommon entries.
- When the period for which both the abstracts are given is uncommon, i.e. the cash book relates to January but the pass book relates to February, take into account only common entries.
- Where the period is same, uncommon entries will appear in the reconciliation statement.



- When the period is different, common entries will appear in the reconciliation statement.

Adjusting The Cash Book Balance

We have learnt that certain entries appear in the pass book first and then by comparing the pass book with the cashbook, these missing entries are incorporated in the cash book. The trader must know the correct bank balance at any time so that he can issue cheques only to the extent of the available bank balance. Therefore, preparing a bank reconciliation statement, the accountant makes the necessary corrections in the cash book and adjusts the cash book balance.

The items, which can usually be adjusted in the cash book are:

- Payment made by bank as per standing instructions.
- Bank charges, interest on bank overdraft debited by the bank.
- Collection of interest in securities and dividend on shares by bank.
- Debits for the dishonor of cheques in the pass book.
- Direct deposits made by customers of the trader.
- Errors committed in the cash book.

Advantages of Bank Reconciliation Statement

Following are the advantage of preparing the bank reconciliation statement:

- It helps the management to check the accuracy of the entries made in the cash book.
- It helps to detect errors and to take timely action for the correction of balances.
- It is a very important control technique for the management.
- It shows the correct bank balance at any particular time
- It reveals frauds committed by the staff handling cash and cheques and thus, helps the management to have effective control.

JAIIB AFM Module A Unit 5- Trial Balance, Rectification of Errors and Adjusting & Closing Entries

Trial Balance

Multiple entries in various accounts will make a Ledger. Taking all the ledger balances and presenting them in a single worksheet as on a particular date is Trial Balance.

To understand a trial balance, we must first understand the following:

- **Double entry system** – Recording two entries for a single transaction that is equal and opposite in nature
- **Journal** – All transactions recorded in double entry system of bookkeeping
- **Ledger** – Summary of all journals of a similar nature.



Features and Purpose of a Trial Balance

- It is a list of debit and credit balance drawn from ledger.
- It includes cash and Bank balance.
- Its main purpose is to establish arithmetical accuracy of transactions recorded in the books of account.
- It is usually prepared at the end of the year but it can also be prepared any time, as and when required, e.g, monthly, quarterly or half yearly.
- It enables the trader to know amounts receivable from customers and amounts payable to suppliers.
- It facilitates preparation of final accounts.

Types of Trial Balance and Preparation of Trial Balance

There are two types of Trial balance:

- Gross Trial Balance
- Net Trial Balance

Gross Trial Balance

It is Prepared in the following stages:

- Take totals of debit and credit columns of each ledger account.
- Take totals of receipts and payments of cashbook showing separately cash, bank and discount columns.
- Write names of all accounts as per the ledger and cash, bank and discount accounts as per cash book onto a statement.
- Enter the debit and credit totals against each item.
- Finally take total of debit and credit columns.

Example:

On 31st March 2014, the totals of debit and credit sides of various ledger accounts and receipts and payments sides of cash and bank columns of cash book of Mr. Abhinav are as under:

Total of debit side (Rs.)	Name of the account	Total of credit side (Rs.)
10, 000	Abhinav Capital	1,35,000
25,000	Drawings	-
15,000	Stock on 31 st March, 1996	-
1,90,000	Purchases	4,000
-	Purchases Returns	18,000
6,000	Sales	2,45,000



13,000	Sales Returns	--
12,000	Expenses	-
3,05,000	Customers	2,50,000
2,00,000	Suppliers	2,35,000
1,00,000	Car	-
2,81,000	Dena Bank	2,75,000
43,000	Cash	38,000

Solution

Gross Trial Balance as on 31st March 2014

Name of the Account	L.F	Debit (Rs.)	Credit (Rs.)
Abhinav Capital		10000	1,35,000
Drawings		25000	--
Stock on 31 st March, 2013		15000	--
Purchases		190000	4000
Purchases Returns		--	18000
Sales		6000	2,45,000
Sales Returns		13000	--
Expenses		12000	--
Customers		3,05,000	2,50,000
Suppliers		2,00,000	2,35,000
Car		1,00,000	--
Dena Bank		2,81,000	2,75,000
Cash		43,000	38,000
Total		12,00,000	12,00,000

Net Trial Balance

Under this trial Balance, net balance of each amount are drawn and shown in trial balance. If debit total of an account is more, it will show debit balance and of credit total of an account is more, it will show a credit balance.



Net Trial Balance as on 31st march 2014

Name of the Account	L.F	Debit (Rs.)	Credit (Rs.)
Abhinav Capital			1,25,000
Drawings		25000	--
Stock on 31 st March, 2013		15000	--
Purchases		186000	
Purchases Returns		--	18000
Sales			2,39,000
Sales Returns		13000	--
Expenses		12000	--
Customers		55000	--
Suppliers			35,000
Car		1,00,000	--
Dena Bank		6000	
Cash		5000	
Total		4,17,000	4,17,000

Disagreement of a Trial Balance

Disagreement of a trial balance may be caused by the wrong totaling or balancing of ledger accounts. While totaling the figure of subsidiary books there may arise some errors that will cause disagreement of trial balance. Omission to post a ledger balance also causes the disagreement of a trial balance.

Classification of Errors

Errors can be broadly divided into two type:

- Clerical Errors
- Principle Errors

Clerical Errors

- Errors of Omission,
- Errors of Commission, and
- Compensating errors.



Errors of Omission

The Errors of Omission will occur when a transaction is not recorded in the books of accounts or omitted by mistake. The Errors of Omission two types.

- Partial
- Complete

The partial errors may happen in relation to any subsidiary books. This is the result of when a transaction is entered in the subsidiary book but not posted to the ledger. For example, cash paid to the suppliers has been entered in the payment side of the cash book but it will not be entered in the debit side of the suppliers account.

The complete omission may happen the transaction is completely omitted from the books of accounts. For example, an accountant fails to enter a specific invoice from the sales day book.

Errors of Commission

When a transaction is entered in the books of accounts in wrongly, this may be entered as partially or incorrectly. This kind of errors are known as Errors of Commission. The Errors of Commission may happens because of ignorance or negligence of the accountant. This may be of different types, the main reasons are Errors relating to subsidiary books and Errors relating to ledger. **Following are some of the examples:**

- Posting of correct amount but on the wrong side
- Posting of a wrong amount but on the correct side
- Posting of a wrong amount amount on wrong side of an account

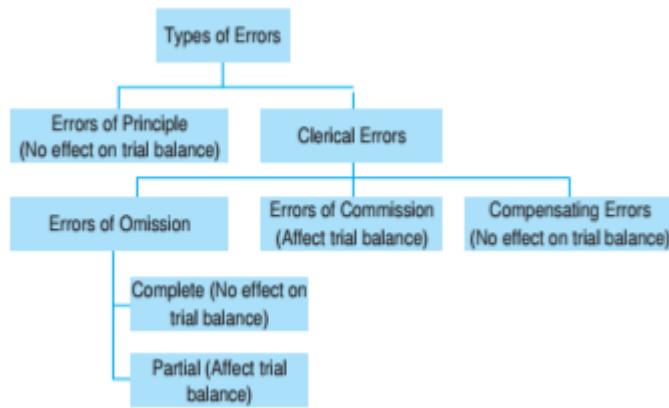
Compensating Errors

Compensating Errors are those errors which compensates themselves in the net results of the business. This means, if there are over debit in one account which will be compensated by the over credit in some account in the same extent of the business. Like that, if there is a wrong debit in one account which will be neutralized by some wrong credit in the same extent of the business.

Errors of Principles

This kind of errors are occurs when the entries are made against the principle of accounting. These Errors are made because of the following reasons:-

- Errors happens due to the inability to make a distinction between the revenue and capital items.
- Errors happens due to the inability to make a difference between the business expenses and personal expenses.
- Errors happens because of the inability to make a distinction between the productive expense and nonproductive expenses.



Rectification of Errors

One- sided Errors

- These errors affect only one account. Thus, these are one-sided errors. We can rectify these errors by giving an explanatory note in the account or by passing a journal entry with the help of Suspense A/c. When we detect an error before posting to the ledger, we can correct it by simply crossing the wrong amount, writing the correct amount above it and initializing it. Similarly, we can also correct an error in the ledger account.
- Errors of casting, errors of carrying forward the balances, errors of balancing the accounts, errors of posting the wrong amount in the correct account, error of posting in the correct account on the wrong side, omitting to show an account in the trial balance, posting in wrong side with wrong amount are the examples of errors affecting the Trial Balance.

Two-sided Errors

- These errors affect two or more accounts simultaneously. Thus, these are two-sided errors. We can rectify these by passing a journal entry giving the correct debit and credit to the accounts. In order to rectify an error, we need to cancel the effect of wrong debit or credit by reversing it and restore the effect of correct debit or credit.
- When there is short debit or excess credit in an account we need to debit the concerned account. Whereas, when there is short credit or excess debit in an account we need to credit the concerned account.
- Complete omission to record an entry in the journal or the subsidiary books, incorrect recording of transactions in the books, complete omission of posting and errors of principle are the examples of these errors.

Suspense Account

When the trial balance does not tally due to the one-sided errors in the books, an accountant puts the difference between the debit and credit side of the trial balance on the shorter side as the Suspense A/c. As and when we locate and rectify the errors, the balance in the Suspense A/c reduces and consequently becomes zero. Thus, we cannot



categorize the Suspense A/c. It is a temporary account and can have debit or credit balance depending upon the situation.

While using the Suspense A/c to rectify the one-sided errors, the accountant needs to follow the following steps:

- Identification of the account with the error.
- Ascertainment of the excess debit or credit or short debit or credit in the above account.
- In case of short debit or excess credit in an account, we need to debit the concerned account. Whereas, in case of short credit or excess debit in an account we need to credit the concerned account.
- Pass the necessary journal entry by debiting or crediting the Suspense A/c

Example

Q: Trial Balance of M/s Srivastav Enterprises did not agree. It puts the difference to the Suspense A/c. Rectify the following errors and prepare the Suspense A/c to ascertain the original difference in the trial balance.

Amount paid for the installation of the machinery ₹10000 was posted to the Repairs and maintenance A/c.

Total of Purchases book ₹50000 was not posted to the ledger.

Goods returned to John ₹3000 were recorded in Sales Book.

Salary paid to Ram ₹6000 was debited to his personal account.

Depreciation written-off on furniture ₹500 was not posted to the furniture account.

Ans: In the books of M/s Srivastav Enterprises

Date	Particulars		Amount (Dr.)	Amount (Cr.)
1.	Machinery A/c	Dr.	10000	
	To Repairs and Maintenance A/c			10000
	(Being rectification of the wrong journal entry in the Repairs and maintenance A/c)			
2.	Purchases A/c	Dr.	50000	



	To Suspense A/c			50000
	(Being rectification of the omission to post the total of purchases book in the ledger)			
3.	Sales A/c	Dr.	3000	
	To Purchases Return A/c			3000
	(Being rectification of wrong recording of the purchases return in the sales book)			
4.	Salary A/c	Dr.	6000	
	To Ram's A/c			6000
	(Being rectification of wrong debit to the personal account of an employee)			
5.	Suspense A/c	Dr.	500	
	To Furniture A/c			500
	(Being rectification of omission of posting in the furniture account)			

Suspense A/c

Date	Particulars	Amount		Date	Particulars	Amount
	Difference as per Trial balance	49500		2.	By Purchases A/c	50000
5.	To Furniture A/c	500				



		<u>50000</u>				<u>50000</u>
--	--	--------------	--	--	--	--------------

Entries Adjusting and Closing

Adjusting Entries

- Final Account are the accounts which are prepared at the end of the trading year. These accounts show the final results of the business carried out. Final accounts are prepared to find out profit earned or loss sustained by a concern.
- At the end of the accounting year, all ledger accounts are balanced and then trial balance is prepared. From the trial balance, final accounts, i.e. trading, profit and loss account and balance sheet are drawn. While preparing trading and profit and loss account, all expenses and incomes for the full period are to be taken into consideration. If expenses have been incurred but not paid or income is due but not received, necessary entries are required to be passed to show the correct picture of the business. These entries are called "Adjusting Entries".

Closing Entries

At the end of cash year, all accounts of expenses and incomes must be closed. The balance of these accounts are transferred to trading account and profit and loss account. The entries passed to transfer these balances are called "Closing entries".

JAIIB AFM Module A Unit 6-Depreciation and Its Accounting

Depreciation

Depreciation is a charge to profit and loss account for the fall in value of an asset during each year of its use.

- Depreciation is a part of the opening cost.
- It is a reduction in the value of the asset.
- The decrease in the value of an asset is due to its use, caused by wear and tear, or by other reasons.
- The decrease in the value of an asset is gradual and continuous.

Causes of Depreciation

- Wear and tear due to actual use



- Obsolescence
- Accidents
- Fall in market price
- Efflux of time

Need for Depreciation

- To know the correct profit
- To show correct financial position
- To make provision for replacement of asset

Factors of Depreciation

For calculating depreciation, the basic factors are:

- The cost of the asset;
- The estimated residual or scrap value at the end of its life;
- The estimated number of year of its commercial life.

Methods of Depreciation

The following are the various methods for providing depreciation:

- Fixed percentage on original cost or fixed instalment or straight line method.
- Fixed percentage on diminishing balance or reducing instalment methods or written down value method.
- Units of production method
- Sum of years digits method

Straight line Method

- Straight line method, the cost of the asset is written off equally during its useful life.
- Therefore, an equal amount of depreciation is charged every year throughout the useful life of an asset.
- After the useful life of the asset, its value becomes nil or equal to its residual value.
- Thus, this method is also called Fixed Instalment Method or Fixed percentage on original cost method.

If an asset is used only for 3 months in a year then depreciation will be charged only for 3 months. However, for the Income Tax purposes, if an asset is used for more than 180 days full years' depreciation will be charged.

Advantages

- It is the simplest method of calculating depreciation.

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- It is easy to understand, as there is no variation in the amount of depreciation charged from year to year.

Disadvantages

- The depreciation is equal for all the year, however, the expenditure on repairs and renewal goes on increasing as the asset gets older, resulting in higher amount charged to profit and loss account on account of depreciation and repairs in the subsequent years.

Formula:

- **Amount of Depreciation** = (Cost of Asset – Net Residual Value) / Useful Life
- **The rate of Depreciation** = (Annual Depreciation x 100) / Cost of Asset

Journal Entries for Straight Line Method of Depreciation

Date	Particulars		Amount (Dr.)	Amount (Cr.)
1. Purchase of asset	Asset A/c	Dr.	xx	
	To Cash/ Bank/ Creditor's A/c			xx
	(Being asset purchased)			
2. Charge Depreciation	Depreciation on Asset A/c	Dr.	xx	
	To Asset A/c			xx
	(Being depreciation charged on asset)			
3. Transfer Depreciation	Profit & Loss A/c	Dr.	xx	
	To Depreciation on Asset A/c			xx
	(Being depreciation on asset transferred to profit and loss account)			

Example

Q. Abhinav purchased a machine on 1 Apr 2015 for ₹400000. The useful life of the machine is 3 years and its estimated residual value is ₹40000. At the end of its useful life, the machine is sold for 40000. Prepare the necessary ledger accounts in the books of Abhinav for the year ending 31st December every year. **Use SLM.**

Ans: In the books of Abhinav

Working Notes:

Calculation of amount of depreciation

Depreciation = (Cost of Asset – Net Residual Value)/Useful life

= (400000 – 40000)/3 = 120000 p.a.

Machinery A/c



Date	Particulars	Amount		Date	Particulars	Amount
2015				2015		
1 Apr	To Cash A/c	400000		31 Dec	By Depreciation A/c	90000
				31 Dec	By balance c/d	310000
		<u>400000</u>				<u>400000</u>
2016				2016		
1 Jan	To balance b/d	310000		31 Dec	By Depreciation A/c	120000
				31 Dec	By balance c/d	190000
		<u>310000</u>				<u>310000</u>
2017				2017		
1 Jan	To balance b/d	190000		31 Dec	By Depreciation A/c	120000
				31 Dec	By balance c/d	70000
		<u>190000</u>				<u>190000</u>
2018				2018		
1 Jan	To balance b/d	70000		31 Mar	By Depreciation A/c	30000
				31 Mar	By Cash A/c	40000
		<u>70000</u>				<u>70000</u>

Depreciation A/c

Date	Particulars	Amount		Date	Particulars	Amount
2015				2015		
31 Dec	To Machinery A/c	90000		31 Dec	By Profit & Loss A/c	90000
		<u>90000</u>				<u>90000</u>
2016				2016		
31 Dec	To Machinery A/c	120000		31 Dec	By Profit & Loss A/c	120000
		<u>120000</u>				<u>120000</u>
2017				2017		
31 Dec	To Machinery A/c	120000		31 Dec	By Profit & Loss A/c	120000
		<u>120000</u>				<u>120000</u>
2018				2018		
31 Mar	To Machinery A/c	30000		31 Dec	By Profit & Loss A/c	30000
		<u>30000</u>				<u>30000</u>

Diminishing Balance Method or Written-down Value Method

- According to the Diminishing Balance Method, depreciation is charged at a fixed percentage on the book value of the asset.
- As the book value reduces every year, it is also known as the Reducing Balance Method or Written-down Value Method.
- Since the book value reduces every year, hence the amount of depreciation also reduces every year.
- Under this method, the value of the asset never reduces to zero.

Amount of depreciation = Book Value × Rate of Depreciation / 100

Advantage

- This method is recognised under the Income-Tax Act and the Companies Act.



- The total expenditure on repairs and renewal and depreciation on asset are equal in all year, as in the initial years the depreciation will be more and less and in later years the expenditure on repairs will be high and depreciation less, through both may not exactly compensate the decrease/increase in the other.

Disadvantage

- The asset can never be reduced to zero value on the books
- Difficult to understand, as there is variation in the depreciation charged from year to year.

Journal entry for Diminishing Balance Method of Depreciation

Date	Particulars		Amount (Dr.)	Amount (Cr.)
1. Purchase of asset	Asset A/c	Dr.	xx	
	To Cash/ Bank / Creditor's A/c			xx
	(Being asset purchased)			
2. Charge Depreciation	Depreciation on Asset A/c	Dr.	xx	
	To Asset A/c			xx
	(Being depreciation charged on book value of asset)			
3. Transfer Depreciation	Profit & Loss A/c	Dr.	xx	
	To Depreciation on Asset A/c			xx
	(Being depreciation on asset transferred to profit and loss account)			

Example on Diminishing Balance method

Q. M/s. Srivastav and sons purchased a machine on 1 Apr 2015 for ₹400000 from ABC & Co. and paid ₹100000 on its installation. The useful life of the machine is 3 years and its estimated residual value is ₹40000. On 31st March 2018, M/s. Srivastav and sons sell the machinery for 250000.

Charge depreciation as per the W.D.V. method @10 % p. a. Prepare the necessary ledger accounts in the books of Anil for the year ending 31st December every year.

Ans: In the books of M/s. Srivastav and sons

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Machinery A/c

Date	Particulars	Amount		Date	Particulars	Amount
2015				2015		
1 Apr	To ABC & Co. A/c	400000		31 Dec	By Depreciation A/c	37500
	To Cash A/c (installation exp.)	100000		31 Dec	By balance c/d	462500
		-				-
		<u>500000</u>				<u>500000</u>
2016				2016		
1 Jan	To balance b/d	462500		31 Dec	By Depreciation A/c	46250
				31 Dec	By balance c/d	416250
		<u>462500</u>				<u>462500</u>
2017				2017		

1 Jan	To balance b/d	416250		31 Dec	By Depreciation A/c	41625
				31 Dec	By balance c/d	374625
		<u>416250</u>				<u>416250</u>
2018				2018		
1 Jan	To balance b/d	374625		31 Mar	By Depreciation A/c	9366
				31 Mar	By Cash A/c	250000
					By Profit & Loss A/c (loss on sale)	115259
		<u>401625</u>				<u>401625</u>

Working Notes:

Calculation of amount of depreciation

Amount of depreciation = Book Value × Rate of Depreciation / 100

- 2015: Depreciation = $500000 \times 10/100 \times 9/12 = 37500$
- 2016: Depreciation = $462500 \times 10/100 = 46250$
- 2017: Depreciation = $416250 \times 10/100 = 41625$
- 2018: Depreciation = $374625 \times 10/100 \times 3/12 = 9366$

Calculation of loss on sale of machinery

Loss = Book Value on 1 Jan 2018 – depreciation for 3 months – cash received



$$= 374625 - 9366 - 250000 = 115259$$

Units Of Production Method

- Accounting Standards in India (AS-10 and Ind AS-16) recognise 3 methods of calculating depreciation.
- These are Straight line method, Diminishing Balance method and the Units of Production method.
- This method is a usage based method.
- The depreciation amount is not based on passage of time but actual use of the asset.
- This method is suited to those assets which depreciate in proportion to their use rather than having a useful life measured in number of years.
- In this method, the useful life is measured in term of production output or number of units which an asset is capable of producing during its lifetime. This method gives very accurate measure of the depreciation but suffers from the drawback of the need to maintain elaborate records.

FORMULA:

Depreciation amount during a period = $\left(\frac{\text{Actual production or usage during the period}}{\text{Total Expected Production or Usage during the asset life of the asset}} \right) \times \text{Total depreciable amount}$

Example;

- Company ABC Ltd. Purchases a pen production machine. This machine can manufacture 1,000,000 pens after which it will have to be scrapped. The purchase price of the machine is Rs. 100,000 and the scrap value is estimated at Rs. 10,000. During the first year of production, the machine produced 200,000 pens.
- The depreciation amount in the first year will be; $= \left(\frac{200,000}{1,000,000} \right) \times (100,000 - 10,000) = 0.2 \times 90,000 = 18,000$

Sum Of the Years Digits Method

According to SOYD method, to calculate the depreciated value we have to take the expected life of an asset (in years) count back to one and add the figures together. This is a method of calculating depreciation of an asset that assumes a higher depreciation charge and a greater tax benefit in the early years of an asset's life.

Example

A new machine was purchased for Rs. 3 lac with 5 years economic life. What is WDV at the end of 3rd year as per SOYD method?

Sum of Years Digit total = $5+4+3+2+1=15$



Depreciation for 3 years = $12/15 \times 300000 = 240000$

WDV at the end of 3rd year = $300000 - 240000 = 60000$

Example;

Company ABC Ltd. Purchases a pen production machine. This machine can manufacture 1,000,000 pens after which it will have to be scrapped. The purchase price of the machine is Rs. 100,000 and the scrap value is estimated at Rs. 10,000. During the first year of production, the machine produced 200,000 pens.

The depreciation amount in the first year will be; $= (200,000/1,000,000) \times (100,000 - 10,000) = 0.2 \times 90,000 = \text{` } 18,000$

Replacement Of A Fixed Asset And Creation Of Sinking Fund

- Since depreciation expense is a non-cash expense (i.e. cash is usually paid out in the year the asset is acquired, but the expense is distributed over several years),
- it is important to plan for the replacement of fixed assets as they wear out or become obsolete.
- For example, some organisations set aside an amount of cash equal to the amount of their yearly depreciation expense so that money will be available to purchase a new asset once the current one is fully depreciated.
- Under this method, a 'Depreciation Fund' or 'Sinking Fund' is created and the amount is invested in readily saleable securities.
- At the end of the life of the asset, the securities are sold and the sale proceeds of the old assets are used for replacement of the asset.

Amortisation Of Intangible Assets

- Many of the intangible assets (e.g. patents, licences, trademarks, etc.) also have a limited useful life.
- Therefore, it is logical to reduce their value in every accounting year before carrying them to the new accounting year. **This is called amortisation.**
- Our discussion about depreciation, in this chapter, is equally applicable to amortization.
- Indian Accounting Standard (Ind AS) 38, which deals with intangible assets, describes amortisation as under; "Amortisation is the systematic allocation of the depreciable amount of an intangible asset over its useful life."
- This Standard defines an intangible asset as, "an identifiable non-monetary asset without physical substance".
- Some other examples of intangible assets are; Scientific or technical knowledge, design and implementation of new process or systems, intellectual property,



copyrights, computer software, motion picture films, marketing rights, fishing licences etc.

JAIIB AFM Module A Unit 7- Capital and Revenue Expenditure

Expenditure

Expenditure means spending on something. This can be a payment in cash or can also be the exchange of some valuable item in exchange for goods or services. It is the process of causing a liability by a commodity. Receipts and invoices keep the records of expenditures. An expense is a word very similar to expenditure but expense shows the deduction in the value of the asset while expenditure simply denotes the obtaining of assets. *Two types of expenditures are present on the basis of time durations, That is*

- Capital expenditures
- Revenue expenditures

Capital Expenditures

These are expenditures for high-value items that holds longer duration requirements. Capital expenditures are long-term expenditures. In other words, when the expenses are made for a particular asset but they do not get completely consumed in the specific time. Due to this the earning capacity increases, and in the meanwhile, the price of the assets decreases. **Example:** Cash money spent on business purposes, Purchasing of Plants and machinery items Etc.

Costs which are classified as Capital Expenditure

- **Initial costs:** These include purchase price including duties and non-refundable taxes, costs directly attributable to bringing the asset to the location and condition necessary for it to be operational. This is also applicable to acquisition of intangible assets.
- **Subsequent costs:** These include costs of parts of some items of the assets requiring replacement at regular intervals. These also include the costs of major inspections for potential faults in the assets.

Some of the examples of the above costs are:

- Costs of employee benefits arising directly from the construction or acquisition of the asset
- Costs of site preparation
- Initial delivery and handling costs
- Installation and assembly costs
- Costs of testing
- Professional fees



- Research of development expenditure
- All directly attributable costs necessary to create, produce and operate an internally generated intangible asset

Revenue Expenditures

In contrast to the capital expenditure, revenue expenditures are not the high-value items, instead, they are the routine expenditures that takes place in the normal business. In other words, this kind of expenditure maintains fixed assets.

Unlike capital expenditure, earnings do not increase but stay maintained in revenue expenditure. **The assets get consumed in an accounting year and no future benefits are available.**

Capital VS Expenditure

Capital Expenditure	Revenue Expenditure
Amount spent of usually large.	Amount spent is relatively small.
The purpose is to improve or enhance business or productive or earning capacity	The Benefit is short duration
The benefit of long duration	The benefit is short duration
It is non-recurring	It is recurring
It is shown in balance sheet	It is shown in profit and loss account.
Not matched with capital receipts	Matched with revenue receipts

Receipts

Capital Receipts

Capital Receipts are from issue of Equity/ Preference share/ Capital Instruments or from sale of Disposal of fixed Assets/Long Term investment or from Grants received from Government for Building of Capital Assets. Capital receipts are not routed through Profit & Loss account. However profit/loss, if any, arising from such transactions is recorded in the P & L account.

Revenue Receipts

Revenue Receipts are from day to day operation of the company or receipts where is no further obligation on the entry to perform certain actions. Revenue Receipts are routed through Profit and loss account.

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JAIIB AFM Module A Unit 8- Bills of Exchange

Types of Instruments of Credit

In a business, credit transactions play very important role. For manufacturing goods, manufacturer purchases raw materials, the majority of which will be on credit.

Credit may also be granted by a moneylender, a banker or financial institution. Credit is, generally, provided by obtaining, a written document called '**Instrument of Credit**'. The serves as a proof of existence of credit.

- Bills of Exchange
- Promissory Notes

Bills of Exchange

- **Drawer:** A person who draws the bill.
- **Drawee:** A person on whom the bill is drawn
- **Payee:** A person who is going to receive money.

Features of Bills of Exchange

- A bill of exchange an instrument in writing.
- It is drawn and signed by the maker i.e. drawer of the bill.
- Contains an unconditional order to a person i.e. drawee.
- The specified amount is payable to the person whose name is mentioned in the bill or to his order or to the bearer.
- It specifies the date by which amount should be paid. (Section 5 of Negotiable Instrument Act).
- Payment of the bill must be in the legal currency of the country.
- It must be properly stamped.
- It must bear a revenue stamp.



Bills of Exchange Example

Mr. Abhinav srivastav draws a bill on Ms. Alpa jha for 3 months for ₹ 50,000, payable to Mr. Niraj kumar or his order on 15th April 2019.

Mr. Abhinav srivastav has ordered Ms. Alpa jha to pay ₹ 50,000 to Mr. Niraj kumar. If the order is acceptable to Ms. Alpa jha, he will write across the bill as follows:

Accepted

Ms. Alpa jha

Sector 56, Noida, UP

17th April 2019

When the drawee writes such acceptance on the bill, it becomes a bill of exchange. In the above example Mr. Abhinav srivastav is the drawer of the bill, Ms. Alpa jha is the acceptor and Mr. Niraj kumar is the Payee. Ms. Alpa jha will pay the amount to Mr. Niraj kumar.

Promissory Notes

A written undertaking by the buyer to make a payment on a specified date can take the form of a bill of exchange or a promissory note. We have seen earlier that a bill of exchange is drawn by the creditor and accepted by the debtor. A promissory notes, on the other hand, is written by the debtor (buyer) promising the creditor (seller) to pay a specified sum after a specified period. Thus, it can be defined as:

Features of Promissory Notes

- An instrument in writing
- Containing an unconditional undertaking
- Signed by the maker to pay a certain sum of money
- To or to the order of a certain person or the bearer of the instrument (section 4 of the Negotiable instrument Act)

In a case of Promissory notes, there are two parties:

- **Maker:** A person who makes the note and promises to make the payment.
- **Payee:** A person who is to receive money.

Or

- **The holder:** A holder is basically the person who holds the notes. He may be either the payee or some other person.

Essential Elements of a Promissory Note

- Written notes
- Express undertaking
- Unconditional promise
- Specific amount
- Legal tender

Example:

Promissory Note

Amount

Date

Stamp

Term months after date, I promise to pay _____ or order, The sum of _____, for value received.

Signature
Name of Maker
Address of Maker

Difference between Bills of Exchange and Promissory Note

Bills of Exchange	Promissory Notes
It is an unconditional order to pay	It is an unconditional promise to pay.
It is made by a creditor.	It is made by a debtor.
Acceptance by debtor is necessary	No acceptance is required
On dishonor of a bill, it is usually noted by the notary Public.	Nothing is not necessary.

Cheque

Essential Features of cheque

- A cheque must have to fulfill all the essential elements of a bill of exchange.
- It must be payable to bearer or to order but in either case, it must be payable on demand.
- The banker named pays it when it is presented for payment.



- The signature must tally with the specimen sign of the drawer kept in the bank
- A cheque must be dated.
- A cheque drawn with a future is valid but the same is payable on or after such specified period.

Difference between Bills of Exchange and Cheque

Bills of Exchange	Cheque
A bill of exchange can be drawn upon any person including a bank.	A cheque can be drawn only upon a bank.
A bill of exchange requires acceptance.	A cheque does not requires any acceptance
The acceptor of a bill of exchange is allowed three days of grace after the date maturity of the bill.	A cheque is always payable on demand
Notice of dishonor is necessary	Notice does not requires any stamp.
A bill of exchange must be stamped	A cheque does not require any stamp.

Term And Due Date Of A Bill

Every promissory note or bill of exchange which is not expressed to be payable on demand, at sight or on presentment matures on the date it falls due. This period of a bill is called **'Term' or 'Tenor' of the bill**. The date of maturity in such cases is calculated after adding three days of grace to the actual period of the bill. Let us suppose, a bill is drawn on 1st March for a period of one month, then, its due date will be 1st April plus three days of grace, i.e. 4th April. If the due date falls on a public holiday say 26th January, then it becomes due on the previous working day, i.e. 25th January.

Accommodation Bill

Accommodation Bills are drawn and accepted with no consideration passed or received. The Bill, which is drawn just to oblige a friend, who is in need of money, of course without any trading activities, with sole intention of raising funds required for ready cash is known as Accommodation Bill.

The accommodating party, i.e., the drawee accepts the Bill drawn by the accommodated party (drawer). That is the Drawer of the accommodation bill can be called accommodated party and drawee can be called accommodating party. After the Bill is accepted, the drawer discounts it with a bank and obtains the cash.

Before the due date of the Bill, Drawer provides funds to the Acceptor, who honours the Bill. Since the acceptance is given without consideration and to help the accommodated



party to raise the funds, the accommodated party has to discharge the Bill by himself or provide funds to accommodating party.

Thus, there is always a mutual understanding between the parties and hence, **these bills are called Accommodation Bills.**

Example:

Mr. A accepted a bill for Rs 20,000 drawn by B to enable the latter to raise funds at three months on 1st October 2004. The bill was duly discounted by B at their Bank at 6% per annum. On the due date B remitted the amount to the acceptor and the Bill was duly met. Pass journal entries in the books of both the parties.

SOLUTION

B's Journal				A's Journal			
			Rs	Rs		Rs	Rs
2004 Oct. 1	Bills Receivable Account To A Account (Being Bill drawn on A for 3 months)	Dr.	20,000		B Account To Bills Payable Account (Being acceptance of Bill drawn by B)	Dr.	20,000
							20,000
Oct. 2	Cash Account Discount on Bills Account To Bills Receivable (Being Bill discounted at 6% p.a.)	Dr. Dr.	19,700 300	20,000	NO ENTRY		
2005 Jan. 4	A Account To Cash Account (Being amount paid to A to meet the Bill on the due date)	Dr.	20,000		Cash Account To B Account (Being cash received from B to honour the Bill)	Dr.	20,000
							20,000
Jan. 4	NO ENTRY				Bills Payable Account To Cash Account (Being bill honoured on maturity)	Dr.	20,000
							20,000

Discount: $20,000 \times \frac{6}{100} \times \frac{3}{12} = \text{Rs } 300$

Bill Books

Two types of Bill Books

- Bills Receivable Book
- Bills Payable Book

Bills Receivable Book

Bills receivable book is a book where all the bills, which are received, are recorded and posted directly to the credit of respective customer's account from there. The total amount of bills so received during the period, either at the end of the week or month, is to be posted to, in one lump sum, to the debit of the bills receivable account. **The usual form of bills receivable book, with imaginary figures is shown below.**



N o.	Date of Receipt	From whom	Acceptor	Date of bill	Term	Date due	Where payable	Amount	L. F	How Disposed off	Remarks
1	1/1/20	A	A	1/1/20	1 month	1/1/20	Delhi	4000	-	-	-

Bills Payable Book

This is a book where all particulars relating to the bills accepted are recorded and, posted from there, directly to the debit of the respective creditor's account. The total amount of the bills so accepted during the period, either at end of the week or month, is to be posted in one lump sum to the credit of bills payable account. **The usual form of 'Bill payable book' with imaginary figures,**

N o.	Date of Receipt	Drawn by	Payee	Date of bill	Term	Date due	Where payable	Amount	L. F	How Disposed off	Remarks
------	-----------------	----------	-------	--------------	------	----------	---------------	--------	------	------------------	---------

Important Terms

- **Honouring of Bill:** When the drawee pays the amount of the bill on due date, the bill is said to be 'Honoured Bills'.
- **Dishonour of Bill:** When the drawee does not pay the amount of the bill on due date, the bill is said to be 'Dishonoured Bills'.
- **Discounting of Bills:** The drawer may discount the bill with the bank before the due date. The bank charges discounting charges from the drawer at a certain rate.

Thus, at the time of discounting the bank deposits the net amount after charging such amount of discount in the account of the holder of the bill.

Discount = Amount of bill

× Rate of interest or discount / 100 × Remaining period to maturity / 12

- **Endorsement of bills:** Transfer of bill to some other person by the holder.
- **Retirement of bills:** When a drawee pays the bill before its due date. It is called retirement of bill.
- **Renewal of bill:** Renewal of bill of exchange is an act of cancellation of old bill before its maturity in return of a new bill, including interest, for an extended period. It is done by drawer on request of drawee.



- **Accommodation of bill:** An accommodation bill is a bill of exchange signed for by a person (the accommodation party) acting as a guarantor. The accommodation party is liable for the bill should the acceptor fail to pay at maturity. Accommodation bills are sometimes also referred to as windbills or windmills.
- **Notary Public:** A notary public of the common law is a public officer constituted by law to serve the public in non-contentious matters usually concerned with estates, deeds, powers-of-attorney, and foreign and international business.
- **Rebate:** When a bill is paid by drawee before due date, same allowance is given to him. This allowance is called 'Rebate'.

JAIIB AFM Module A Unit 9 - Operational Aspects Of Accounting Entries

Introduction

- Ultimate objective of recording the financial transactions is to prepare the balance sheet and the P&L account
- Purpose: All the stakeholders get a fair picture of results of the operations of the enterprise during the accounting period as also the financial position at the end of the accounting period.
- Always in terms of number of monetary units.
- **Debit or credit entry:** The accounting entry could be a debit entry or a credit entry.
- **Double entry system:** Every credit/debit accounting entry should have one or more corresponding debit/credit entry. Each such pair of accounting entries affects two (or more) accounts in the ledger.

For example, if a customer deposits cash of Rs. 2,000 in a bank branch for credit to his account, the pair of accounting entries:

Bank a/c (Customer a/c) Dr. 2000

To Cash A/c 2000

- Branch level operations in the bank result in initiating a large number of accounting entries and it is very important to know how these should be dealt with.

A peculiar feature of accounting entries in the bank is that these are :

- 1st entered in the ledger accounts concerned and then in the journal.
- In manual operations, the entries are entered in the physical ledgers by the staff concerned.
- After that, all the entries in a particular ledger head are entered in the journal (day book) and



- finally, the total is entered in the control account concerned of the General Ledger which is used in preparing the balance sheet and the P&L account.

Any accounting entry in manual operations can only be made based on a physical voucher which is authenticated by the authorised officer of the branch.

In case of computerised operations, the accounting entry in the system is made by the staff concerned and authenticated by the official concerned. The system takes care of the remaining operations affecting the day books and the GL.

The branch staff has only to enter the accounting entry, originated at the branch, to the accounts concerned and all other operations till the **preparation of financial statements are automatically performed by the system.**

But, it is still important to understand the manual system of accounting so that the staff concerned is clear about the process involved and is able to reply to the queries of the customers and auditors instead of claiming ignorance of the systems and procedures.

Peculiar Features Of Accounting System In Banks

- In the case of banks, the need for the ledger accounts, especially those of customers, being accurate and up-to-date is much stronger than in most other types of enterprises.
- A bank cannot afford to ignore its ledgers particularly those containing the accounts of its customers and has to enter every transaction into the ledgers as soon as it takes place.
- In the case of banks, relatively lesser emphasis is placed on books of prime entry such as cash books or journals.
- This is unlike most other types of enterprises where books of prime entry are generally kept up-to-date while ledgers, including the general ledger and subsidiary ledgers for debtors, creditors, etc. are written afterwards.
- Banks follow the accounting procedure of '**voucher posting**' under which the vouchers are straightaway posted to the individual accounts in the subsidiary ledgers.
- At the end of each day, the debit and credit vouchers relating to a particular type of transaction (e.g. savings bank accounts, current accounts, demand loans, cash credit accounts, etc.) are entered on separate voucher summary sheets and the total thereof is posted to the respective control account in the general ledger.
- The general ledger trial balance is prepared every day.

Types of Transactions

- Transactions in a bank are of two types, cash and non-cash. In the latter case, also called 'transfer transactions', one or both of the accounts concerned may be of the customers or the internal accounts of the bank.
- For example, if 'A' deposits a cheque drawn in his favour by 'B', who is also a customer of the branch, the accounts of the two customers will be affected. On



the other hand, if 'A' deposits a draft drawn on the branch, the 'Draft, account, an internal account of the bank, will be debited. Likewise, on payment of interest on deposit accounts, the 'Interest Account' at the branch will be debited and many personal accounts credited.

Vouchers

Both debit and credit operations on all accounts, either by customers or by the bank itself, are made by means of vouchers. There are two kinds of vouchers, one, which evidences only debit or credit to an account, and the other, which contains both debit and credit to different accounts. For the sake of convenience, the latter kind of vouchers may be called 'composite vouchers'.

The debit vouchers are, broadly the following:

- Cheques issued by the customers.
- Cheques/pay orders issued by the bank.
- Withdrawal forms received from the savings bank account holders.
- Drafts issued by other branches of the bank payable at the branch.
- Drafts issued by other banks on the branch, in terms of an approved arrangement between the two banks.
- Dividend/interest warrants issued by the bank's customers and payable by the branch in terms of an approved arrangement.
- Travellers' cheques issued by any branch of the bank which are presented to the branch for payment.
- Drafts/pay orders issued by the branch itself which are cancelled at the request of the customer and amount is refunded to him.
- Instruments like traveller's cheques/gift cheques, etc., of other banks which are paid by the branch in terms of an approved arrangement.
- Letters of authority signed by the customers, containing standing instructions.
- Debit vouchers prepared by the branch on its printed stationery which are authorised by a designated official of the bank and may also carry authority from the customers in some cases, if the debit is to his account at the branch.
- In respect of realisation of collection instrument sent to other branches of the bank, a debit advice (which may be known by different names in different banks) prepared by the other branch may itself act as a debit voucher.
- Term deposit receipts presented for payment, renewal or premature closure.

The credit vouchers which are also of many kinds broadly encompass the following:

- Pay-in-slips filled by the customers (depositors as well as borrowers) for deposit of amounts in their accounts. Generally, the pay-in-slips are in a standard format adopted by the bank but there may be cases of a special kind of pay-in-slips in respect of some customers pursuant to a formal agreement between the bank and the customer.
- Applications for issue of term deposits, demand drafts, RTGS/NEFT, banker's cheques, pay orders, gift cheques, travellers' cheques and other similar



instruments. Some of these applications may be made on behalf of the branch itself for the payments it has to make.

- Challans for deposits into the accounts of Central/State Government, e.g. on account of direct/ indirect taxes or under schemes like public provident fund, etc.
- Credit vouchers prepared by the branch on its printed stationery which are authorised by an official of the bank. Normally, these vouchers are signed on behalf of the branch only but there may be some instances where the customer concerned also signs on the voucher as evidence that the transaction actually pertains to him. Examples are: deposit of locker charges (credit to an income account of the bank), deposit of money with the bank for purchase of non-judicial stamps required for execution of documents in favour of the bank, etc.
- On payment of collection instruments from other branches of the bank, a credit advice (which may be known by different names in different banks) or a copy of the collection schedule received from the other branch may itself be treated as a credit voucher.

Accounting Systems of Different Banks

- It is difficult to identify a single accounting system that describes all the features of systems in operation in different banks as the accounting systems of different banks vary in terms of hardware configuration, software capabilities, levels of hardware and software security, and nature of transactions processed.
- The accounting system in a bank is designed keeping in view the nature and volume of operations and information needs of the stakeholders.
- Every big bank has customized banking software as per its own requirement and as such, the accounting systems differ amongst different banks.



Illustration

PB branch of bank ABC Ltd. has a number of deposit accounts.

Mr. A also has his SB account in that branch.

On February 28, 2022, Mr. A had the following transactions concerning his account:

- Deposited Rs. 2,000 by cash
- Deposited cheque of Rs. 5,000 issued on the same branch by another customer, Mr. B
- Cheque of Rs. 3,000 deposited earlier is paid through clearing
- Cheque of Rs. 4,000 issued to Mr. C is received at the branch in clearing
- Purchased draft for Rs. 6,000 on an outstation branch of the bank (Draft issued at par by the branch)

(a) What will be the different entries in the account of Mr. A (assume opening balance of Rs. 9,000) ?

(b) Which other accounts will be affected by each of the other entries?

(c) How the control account pertaining to Savings Bank, in the General Ledger, will be affected by the transactions in the account of Mr. A?

(a) The entries in the account of Mr. A, due to the above transactions, are given in the following table:

Date	Particulars	Debits	Credits	Balance
February 28	B/F			9,000
February 28	By cash		2,000	11,000
February 28	By transfer		5,000	16,000
February 28	By clearing		3,000	19,000
February 28	To clearing	4,000		15,000
February 28	To Draft issued	6,000		9,000

(b) The accounts affected by the transactions in the account of Mr. A will be as under:

- Deposit of Rs. 2,000 by cash will be credited to Mr. A's account and result in a debit entry of Rs. 2,000 in the cash account. This entry is part of the cash scroll of the cashier concerned. The total of the cash scroll is taken in the cash book.
- Deposit of the cheque of Rs. 5,000 issued on the same branch by another customer, Mr. B, will result in a transfer credit entry of Rs. 5,000 in the account of Mr. A. The corresponding debit entry will be a transfer entry of Rs. 5,000 in the account of Mr. B.
- Payment received through clearing for a Cheque of Rs. 3,000 deposited earlier will result in a credit entry (clearing-in) in the account of Mr. A and a debit entry of Rs. 3,000 in the account of the bank conducting the clearing house.



- Cheque of Rs 4,000 issued to Mr. B is received at the branch in clearing will result in debit to his account (clearing –out) and a credit entry of Rs 4,000 in the account of the bank conducting the clearing house.
- Purchase of a draft for Rs. 6,000 on an outstation branch of the bank at par, will result in debit entry of Rs. 6,000 in the account of Mr. A and credit entry of Rs. 6,000 in Inter- Office account/ Draft account

(c) At the end of the day, all the vouchers pertaining to the transactions in all the Savings Bank accounts at the branch, including those pertaining to the transactions in the account of Mr. A, will be entered in the SB Day Book.

The credit and debit summations of the Day Book will be entered in the respective columns of the SB control account in the GL and the balance derived.

Separate vouchers are not prepared for ATM/Internet Banking/Mobile banking/system triggered standing instructions/interest application, transactions. Such transactions are processed and recorded by the system.)

JAIIB AFM Module A Unit 10 - Back Office Functions/ Handling Unreconciled Entries In Banks

Introduction

- Back office consists of administration and support personnel in a financial services company, who are not client facing.
- They are a major contributor to the banking business.
- With the introduction of computerisation in the banks, the roles of front office and back office are changing and many of the activities, which were previously performed by the front office, are now performed by the back office, resulting in cost savings and economies of scale as also freeing the time for the front office staff to focus on sales and servicing functions.
- Also, computerisation has eliminated the need of back office being a part of the branch.
- Back offices may be located somewhere other than the bank branch or bank office.
- One of the important functions of the back office is to reconcile the accounting entries specially the inter office entries.

Functions Performed By The Back Office

- Back offices carry out various functions to support the front office activities.
- In specialised functions like Treasury operations and Forex, the back offices perform the mainstream role of directly supporting the trading room or front office by controlling confirmations and settlement transactions.



The back office functions relating to the normal banking activities can be grouped as under:

Book keeping and accounting:

- Transaction processing,
- Maintenance of General Ledger and other books of account,
- Balancing of branch accounts,
- Reconciliation of entries and sub-systems,
- Reparation of financial statements.

Deposits:

- Calculation and posting of interest,
- Service charges,
- Reminders for renewals of term deposits,
- nature of operation of account - single/jointly, etc.

Loans:

- Processing end-to-end loan originations or any aspect of loan servicing,
- Loan modification,
- Default management and collections,
- Calculation of EMIs,
- Calculation and posting of interest,
- Penal interest,
- Processing fee,
- Commission and prepayment charges,
- Processes implementation for credit products,
- Operational Limits,
- Risk management, etc.

Regulatory Compliance:

- Identifying KYC gaps,
- Customer grievance redressal system, etc.

E- banking:

- Handling transactions through internet,
- Mobile banking or ATMs,
- Card based payments, etc.

Other functions:

- Clearing, collection, remittances, etc.

Reconciliation Function In Banks

The basic reconciliation functions in a bank can be divided into groups, as under:



- Reconciliation of accounts for payments involving intermediaries
- Reconciliation of accounts with correspondent banks
- Reconciliation of bank accounts with RBI and other banks and institutions
- Reconciliation of intra branch entries and sub-systems
- Reconciliation of inter branch/office entries

Reconciliation Of Inter Branch/Office Entries

- Origination/Response (Reversal) of Inter Office Transactions Inter office transactions mostly originate at branches.
- Each branch may have a number of transactions with other branches, as well as with the head office of the bank.
- In many transactions, undertaken by the branch, one leg of the transaction involved is Inter Office Account.
- For example, when a draft is issued, the account of the customer is debited and the Inter office account is credited. This draft is paid by the other branch by crediting the account of the payee and debiting the Inter Office account.
- The Inter Office entries of both the branches are reconciled and do not appear in the statement of unreconciled entries.

The major types of transactions, which result in Inter Office debit or credit entry, are:

- Issue of remittance instruments like drafts on other branches.
- Payment of remittance instruments like drafts drawn by other branches.
- Payment to/receipts from other branches of the proceeds of instruments received/sent for collection/realisation/clearing.
- Transactions through NEFT, ECS and RTGS.
- ATM transactions of the customer either at ATMs linked with other branches or with merchant establishments.
- Transactions through payment gateways of ATM etc.
- Payment of instruments like gift cheques/banker's cheques/interest warrants/dividend warrants/repurchase warrants/refund warrants/travelers cheques, etc., which are paid by the branch on behalf of other branches which have received the amount for payment of these instruments from the customers concerned.
- Operations by the authorised branches on the bank's NOSTRO accounts.
- Foreign exchange transactions entered into by the branch for which it has to deal with the nodal forex department of the bank for exchange of rupees with foreign currency.
- Deposits and withdrawal of money by branches from the currency chest maintained by another branch.
- Cash sent to/received from other branches.



- Head office interest receivable and payable by the branches.
- Profit/loss transferred by the branch to head office.
- Government receipts and payments handled by the branch either as the nodal branch or as an agent of the nodal branch.
- Internet based transactions other than inter account transfers with the same branch.
- Credit card related transactions of the customers.
- Nostro Accounts of Indian branches maintained with overseas branches of the bank.
- Capital Funds with the Overseas Branches.
- Head Office balances with the overseas branches including subordinated debt lent to the overseas branches.
- Transactions from Overseas Branches.
- Payments made under LCs of other branches.
- GST transactions of Bank branches within a zone and Zonal or Head office.

Reconciliation of Inter – Office Transactions

- A debit/credit Inter Office transaction, originated at one branch, should result in a corresponding credit/debit transaction (reversal entry) in the Inter Office account at the other branch.
- There may be a time lag in the case of some types of transactions like drafts issued. Therefore, every entry in the Inter Office account should be reconciled with a corresponding entry in the account at another branch/office of the bank.
- The unreconciled inter-office entries indicate the existence of errors or, more seriously, of frauds.

Illustration

- Branch A issues a draft for Rs. 5,000 on branch B of the bank.
- The account of the customer is debited for Rs. 5,000 and the Inter office account is credited by Rs. 5,000.
- The branch includes this entry in the daily statement of inter office account, submitted to the centralised reconciliation department(CRD).
- This draft is paid after 2 days by the branch B by crediting the account of the payee and debiting the Inter Office account as a responding entry.
- Branch B sends the daily statement to the centralised reconciliation department and the responding entry of Rs.5,000 is included in it.
- The central reconciliation department matches the originating and responding entries and these do not appear in the statement of unreconciled entries prepared by the department.
- What happens if branch A has not issued the draft and the draft paid by the branch B is a forged one.



- In this case, there will not be any entry pertaining to this draft in the daily statement of Branch A, while the daily statement of branch B will contain a responding entry of Rs.5,000.
- The CRD will not be able to match the responding entry and it will appear as an unreconciled entry in the statement prepared by the department.
- Follow up by the staff of CRD will reveal the fact of payment of forged draft.

In core banking systems, office accounts are bifurcated between accounts which have a requirement of entering a mandatory reference number while passing the entry (pointing) and accounts which do not have such a mandate (non-pointing).

- In case of pointing accounts, the reconciliation process is easier as the entries can be knocked off based on the reference number and each outstanding entry outstanding on the reporting date can be identified.
- In case of non-pointing accounts, reconciliation requires manual intervention and tracking due to non-availability of a unique reference number. Thus in most of the above mentioned types of transactions, which need to be reconciled, the reconciliation is automatically executed by the system.
- As such, monitoring is required only in those cases, where manual intervention is required.

The typical and most common types of errors observed in office accounts are as under:

- Recording of particulars in incorrect fields.
- Posting of transactions in incorrect office accounts.
- Errors in writing the amounts.
- Double recording of the same transaction.
- Squaring off the transaction by the same amount without checking the transactions.
- Forced matching of transactions.

RBI guidelines regarding Inter office entries

- Considering the fraud prone nature and the fact that there are large number of transactions in inter-office account and the non-reconciliation is widely extended across the banks, RBI has taken a number of measures to achieve an expeditious reconciliation of these transactions by the banks concerned.
- Non- reconciliation results in a '**fraud risk factor**'.

Certain objectionable practices observed by RBI in respect of office accounts are as follows:

- Disguising the cash transactions of customers to avoid and bypassing reporting of Cash/Suspicious Transactions.
- Misuse of funds and indulgence in window dressing by disbursal or repayment of loan through Office Account General Ledger.



- Reference number keying in requirements not made mandatory in case of pointing accounts.
- Opening of saving and current account and routing their transactions through office accounts.
- Dummy debits to the office account and credit to the borrowers account and then reversing the entries to maintain the “standard” status of borrower or to prevent the account from becoming NPA.
- Netting off liability related GLs with debit balances with credit
- balances in other GLs resulting in disclosing net outstanding in Financials of the Bank.

Many income accounts do not have debit freeze or reference id for reversing charges.

- RBI had instructed the banks to reconcile the entries outstanding in their inter branch accounts within a period of six months.
- Banks have been advised by RBI to segregate the credit entries outstanding for more than five years in inter-branch accounts and transfer them to a separate Blocked Account which should be shown in the balance sheet under the head ‘Other liabilities and provisions–Others’ (Schedule 5).
- While arriving at the net amount of inter-branch transactions for inclusion in the balance sheet, the aggregate amount of Blocked Account should be excluded and only the amount representing the **remaining credit entries should be netted against debit entries.**
- Banks have been advised that any adjustment from the Blocked Account should be permitted only with the **authorisation of two** officials, one of whom should be from outside the branch concerned, preferably from the controlling/head office if the amount exceeds a particular amount.
- RBI had also advised the banks to maintain, beginning April 1, 1999, category-wise (head-wise) accounts for various types of transactions put through inter-branch accounts so that the netting can be done category-wise.
- Further, considering the fact that an unreconciled debit entry in the Inter Office account may not represent an asset as a result of fraud or otherwise, the Reserve Bank of India vide its circular DBOD. No.BP.BC.73/21.04.018/2002-03 dated February 26, 2003 has advised the banks to make provision against the net debit balance in the inter-branch account in respect of entries outstanding for more than six months.
- Accordingly, banks are required to arrive at the category-wise position of unreconciled entries outstanding in the inter-branch accounts for more than six months as on March 31 and make provision equivalent to 100 percent of the aggregate net debit under all categories.

While doing so, the banks are required to ensure that:

- The credit balance in the Blocked Account created is also taken into account; and
- The net debit in one category is not set-off against net credit in another category.



JAIIB AFM Module A Unit 11 – Bank Audit & Inspection

Introduction

- **Book:** “An Introduction to Indian Government Accounts and Audit”





- **Issued by:** The Comptroller and Auditor General of India,
- **Defines audit as:** “An instrument of financial control. It acts as a safeguard on behalf of the proprietor (whether an individual or group of persons) against extravagance, carelessness or fraud on the part of the proprietor’s agents or servants in the realization and utilisation of the money or other assets and it ensures on the proprietor’s behalf that the accounts maintained truly represent facts and that the expenditure has been incurred with due regularity and propriety. The agency employed for this purpose is called an auditor.”
- In India, the Companies Act, makes audit of company accounts compulsory.
- Chapter X of the Companies Act, 2013 deals with the appointment of auditors, their removal, resignation, eligibility, qualification, disqualification, remuneration, powers and duties and auditing standards.

Role Of Audit and Inspection

- With the increase in the size of the companies and the volume of transactions, the main objective of audit shifted to ascertaining whether the accounts were true and fair, rather than true and correct.
- Hence the emphasis was not on arithmetical accuracy but on a fair representation of the financial efforts.
- The later developments in auditing pertain to the use of computers in accounting and auditing.
- With the advent of technology and rapid changes taking place in technology and emergence of various risks, the importance of data analysis has increased to a great extent.

Computer Aided Audit Techniques (CAATs) have become a part of the audit to process data of audit significance and to improve the effectiveness and efficiency of the audit process.

- Thus, while the overall objective and scope of audit do not change simply because the
- data is maintained on computers,
- the procedures followed by the auditor in his study and evaluation of the accounting system and related Internal Controls
- the nature, timing and extent of his other audit procedures are affected in a Computerised Information System environment.
- Audit procedures are now transformed from ‘Auditing around the computer’ to ‘Auditing through the computer’.
- The incidental objectives of auditing are detection and prevention of errors and frauds.

**Limitations:**

- The auditor's work involves exercise of judgment and he can only express an opinion. He has to depend on explanations by others.
- Certain non-monetary facts can't exhibit the true position.
- Auditor can't check each and every transaction.
- Audit involves a systematic and scientific examination of the books of account and records of a business entity to confirm that the profit and loss account and the Balance Sheet are properly drawn up to exhibit a true and fair picture of the financial state of affairs of the business and results of the financial period.
- It is also meant to cross check that the applicable regulatory provisions have been adhered to.
- Audit provides comfort to the users of the financial statements of a business that the information available in the statements can be relied upon.
- Banking sector deals with large amounts of public monies exposed to various risks in its operations. It is important that the banking sector stays healthy, safe and stable.
- Quality bank audit plays a crucial role to ensure this.
- Banking operations are mainly conducted at the branches, while other offices act as controlling authorities or administrative offices.
- These offices lay down policies, systems and Internal Control procedures so that the conduct of business is in compliance with the statutory/regulatory provisions and in compliance of accepted accounting principles and practices that cover all transactions and economic events.
- The transactions in banks are voluminous and it should be ensured that in the system of recording, transmission and storage of information/data, is free of risks of errors, omissions, irregularities and frauds.
- Bank managements continuously endeavour to make the internal control systems robust, safe and secure.
- Bank audit is the procedure of reviewing the financial statements, services and procedures adopted by Banks as required under various legislations and the guidelines of Reserve Bank of India.
- It is the routine procedure that all banks must undergo in order to ensure that they are in compliance with industry standards and regulatory norms.

Emergence Of Risk-Based Internal Audit (RBIA) and Its Significance

The internal audit system in banks, historically, concentrated on

- Transaction testing,



- Testing of accuracy
- Reliability of accounting records and financial reports,
- Integrity, reliability and timeliness of control reports,
- Adherence to legal and regulatory requirements.

However, in the changing scenario, the scope of internal audit has widened to evaluate the adequacy and effectiveness of risk management procedures and internal control systems adopted by the banks.

Thus, RBI vide circular dated December 27, 2002, had introduced Risk-Based Internal Audit (RBIA) system in Scheduled Commercial Banks.

(SCBs) as part of their internal control framework.

This was further supplemented vide circular dated January 07, 2021.

This framework relies broadly on

- Well-defined policy for internal audit,
- Functional independence with sufficient standing,
- Effective channels of communication
- Adequate audit resources with sufficient professional competence.

The internal audit function of banks is expected to proactively identify the new risks to ensure that appropriate controls are in place to mitigate them.

The Guidance Note of Reserve Bank of India on RBIA/RBS states that the audit function should provide high quality counsel to management on effectiveness of risk management and internal controls including regulatory compliance by the Bank.

- The Risk-Based Internal Audit would not only offer suggestions for mitigating current risks but also anticipate areas of potential risks and plays an important role in protecting the bank from various risks.
- The implementation of Risk-Based Internal Audit would mean that greater emphasis is placed on the internal auditor's role in mitigating risks.
- Risk-Based Internal Auditing is a methodology that links internal auditing to an organisation's overall risk management framework.
- RBIA allows internal audit to provides an assurance to the Board of Directors and the Senior Management on the quality and effectiveness of bank's internal controls, risk management and governance related systems and processes.
- RBIA is not about auditing risks but about auditing the management of risk.
- It focuses on the process applied by the management team to respond to risks.
- Focus is shifted from the historical internal audit system of fullscale transaction testing to risk identification, prioritization of audit areas and allocation of audit resources in accordance with the risk assessment.
- Not only covers assessment of risks at the branch level but also covers,



- as an independent assessing authority,
 - assessment of risks at the corporate level
 - overall process in place to identify, measure, monitor and control risks.
- Banks are encouraged to adopt the International Internal Audit standards, like those issued by the Basel Committee on Banking Supervision (BCBS) and the Institute of Internal Auditors (IIA).

To bring uniformity in approach followed by the banks, as also to align the expectations on Internal Audit function with the best practices, RBI has issued instructions to the banks, a gist of which is as under:

- Authority, Stature and Independence
- Competence
- Staff Rotation
- Tenor for appointment of Head of Internal Audit
- Reporting Line
- Remuneration
- Outsourcing
- Documentation

Types Of Bank Audits

As banks accept deposit from the public and also lend funds, authenticity and reliability of accounts is a must for public confidence. Keeping this view in mind, banks are subjected to multiple types of audit. ***Bank Audit can be classified into three broad categories: -***

- Concurrent Audit
- Internal Audit/Information System Audit
- Statutory Audit

Concurrent Audit

- Concurrent audit is an examination which is contemporaneous with the occurrence of transactions or is carried out as near thereto as possible.
- It attempts to shorten the interval between a transaction and its examination by an independent person.
- It is a continuous audit, which goes on all the year around, usually conducted by external auditors (chartered accountants) on a monthly basis.
- In Concurrent Audit, daily basic transactions are examined and checked. This ensures that any irregularities are nipped in the bud. There is an emphasis in favour of substantive checking in Key areas rather than test checking.
- Through Concurrent Audit, any irregularities or non-conformities are easily found out as and when they happen and are rectified immediately; thereby avoiding the piling up of irregularities which may become a huge problem for any branch when the year-end audit comes around.



- Concurrent Auditors check daily maximum cash balance adherence compliance, KYC norms compliance, proper documentation of new loan disbursements, whether new loans have been made as per rules and regulations, revenue leakages etc. among other things like putting any new RBI instructions to work. Any exceptions are reported in the Concurrent Audit Report.
- Concurrent Audit is a measure to help a Branch to work smoothly and rectify any mistakes to avoid the cascading effect of the irregularities.

RBI's Guidelines on Concurrent Audit System in Commercial Banks

RBI has revised the guidelines on Concurrent Audit System in Commercial Banks vide RBI Circular Reference No. DBS.CO.ARS.No.BC.01/08.91.021/2019-20 dated 18th September 2019. Concurrent audit aims at shortening the interval between a transaction and its independent examination. It is, therefore, integral to the establishment of sound internal accounting functions and effective controls and is regarded as part of a bank's early warning system to ensure timely detection of serious errors and irregularities, which also helps in averting fraudulent transactions and preventive vigilance in banks.

The revised guidelines cover the following:

- Coverage
- Appointment of Auditors
- Accountability
- Tenure
- Remuneration
- Review of effectiveness of Concurrent Audit
- Reporting System

Internal Audit/Information Systems Audit

Internal Audit

Internal Audit is generally undertaken by bank's own staff and to some extent by the firms of Chartered Accountants.

- **Aimed:** At ensuring the accuracy and correctness of the books of account of banks.
- **One of the broad objectives:** Detection of frauds, along with detection of errors, omissions, irregularities etc.,
- **Internal auditor's job in banks:** Invariably include detection of perpetrated frauds.
- It cannot be denied that frauds have virtually engulfed the entire banking sector be it public, private or foreign banks.
- Considering the adoption of liberalised policy in the Indian Economy and the sweeping changes in the banking scenario, an auditor's **priorities should centre around detection of frauds inter alia other important objectives of the audit of banks.**



- Many banks are conducting Internal Audits instead of Concurrent Audits or even in addition to the Concurrent Audits.

Important aspects to be considered about Internal Audit are:

- Internal Audit's important role in overall governance mechanism of the Banks,
- Role of Risk-Based Internal Audit in evaluating & improving the effectiveness of Risk Management and governance processes
- Risk-Based Internal Audit Procedures
- Role of Internal Audit in Risk Management
- Evaluation of Financial Information through analysis of non-financial data
- Auditing and Assurance Standards.

Information Systems Audit (IS)

- In the past decade, with the increased technology adoption by Banks, the complexities within the IT environment have given rise to considerable technology related risks requiring effective management.
- This led the Banks to implement an Internal Control Framework, based on various standards and their own control requirements and the current RBI guidelines.
- As a result, Bank managements and RBI, need an assurance on the effectiveness of internal controls implemented and expect the IS Audit to provide an independent and objective view of the extent to which the risks are managed.

IS Audit is a process of collecting and evaluating evidence/information to determine whether a computer system could:

- Safeguard its assets (hardware, software and data) through adoption of adequate security control measures;
- Maintain data integrity;
- Achieve goals of the organisation effectively; and
- Result in the efficient use of the available information System resources.

Reserve Bank of India Guidelines on Information Systems Audit

Reserve Bank of India has been taking many initiatives in sensitising Banks to the risks and concerns that emerge from adoption of information Technology. Various Committee reports, instructions and circulars have been issued from time to time towards assisting banks in adopting sound Information System Audit policy framework and practices on Information Security, Electronic Banking, Technology Risk Management and Cyber Frauds.

Final guidelines in these areas were issued by RBI vide its circular dated 29th April, 2011. These Guidelines cover the following areas:

- Information Technology (IT) Governance
- Information Security
- Information Systems Audit
- Information Technology (IT) Operations



- Information Technology (IT) Services
- Outsourcing
- Cyber Fraud
- Business Continuity Planning
- Customer Awareness Programmes & Legal aspects

Scope of IS Audit

- Determining effectiveness of planning and oversight of IT activities
- Evaluating adequacy of operating processes and Internal controls
- Determining adequacy of enterprise-wide compliance efforts, related to IT policies and Internal Control procedures
- Identifying deficient controls, recommend corrective action to address deficiencies and follow-up and to ensure that the management effectively implements the required actions.

Computer-Assisted Audit Techniques (CAATs)

IS Audit Function needs to enhance the use of CAATs, particularly for critical functions or processes carrying financial or regulatory or legal implications. The extent to which CAATs can be used will depend on factors such as efficiency and effectiveness of CAATs over manual techniques.

CAATs may be used in critical areas like:

- Detection of revenue leakages
- Treasury Functions
- Assessing impact of control weaknesses
- Monitoring customer transactions under AML requirements
- Areas where large volume of transactions are reported

CAATs may be used to perform the following audit procedures among others:

- Test of transactions and balances, such as recalculating interest
- Analytical Review procedures, such as identifying inconsistencies or significant fluctuations
- Compliance tests of general controls: testing set up or configuration of the operating system or access procedures to the programme libraries
- Sampling programmes to extract data for audit testing
- Compliance tests of application controls such as testing functioning of a programmed control
- Re-calculating entries performed by the entity's accounting Systems
- Penetration testing

Statutory Audit

Introduction As per the **Banking Regulation Act, 1949**, annual Financial Statements in the form of Profit and Loss Account and Balance Sheet are required to be audited in accordance with the requirements of applicable statutes.



Salient Features

- It is conducted by a 'Statutory Auditor' - the word 'Statute' means - mandated or compulsorily required by any law or Act.
- In case of Banks, sub-section (1) of Section 30 of the Banking Regulation Act, 1949 requires that the Balance Sheet and Profit and Loss account of a banking company should be audited.
- Independent audit of financial statements of Banks is important for a healthy, safe and sound banking system.
- Statutory audit does not look at the intricacies of the banking transactions (which are looked into by concurrent and Internal audits); instead they rely on the concurrent audit & internal Audit Reports and test checking to form their opinion.
- Statutory audit mainly looks at the loans and advances, Compliance with Priority Sector Lending (PSL) requirements, CRR, SLR, CRAR

Stages in Statutory Audit

There is a sea change in banking as use of technology and its continuous evolution has enabled banks to provide its customers comfort of anytime, anywhere banking. The auditor should not assume that the system generated information is correct and can be relied upon without evidence.

The stages in Bank/Statutory audit are:

- Initial consideration by the statutory auditor
- Identifying and assessing the Risks of Material Misstatements
- Understanding the Risk Management Process
- **Engagement** - Team Discussions
- Establishing the overall Audit strategy
- Developing the Audit Plan
- Preparation of Audit Planning Memorandum
- Determining Audit Materiality
- Assessment of ability to continue as Going Concern
- Assessing the Risks of Fraud including Money Laundering
- Assessing Specific Risks
- Assessing Risks Associated with Outsourcing of Activities
- Response to the Associated Risks
- Conformity to Basel III framework
- Reliance on/review of other reports
- Classification of NPAs (It should be based on the record of recovery)
- Asset classification (It should be Borrower-wise and not facility-wise) In carrying out his Substantive procedures, the auditor should examine all large advances while other advances may be examined on a sampling basis.

Types of Audit Reports to be issued by Statutory Auditors

- Statutory Audit Report (As per SA 700/705/706 Issued by ICAI)



- Long Form Audit Report (As per the requirements of RBI guidelines)
- Tax Audit Report (As per Income-tax Act, 1961) RBI has revised the format of Long Form Audit Report vide its circular dated September 05, 2020

Appointment of Statutory Auditors in Banks

Sub-section (1) of section 30 of the Banking Regulation Act, 1949 requires that the Balance Sheet and Profit and Loss of a banking company should be audited by a person duly qualified under any law for the time being in force to be auditor of companies. RBI prepares a panel of Chartered Accountants eligible for conducting statutory audit of banks based upon the data obtained from the Institute of Chartered Accountants of India. Inputs of Comptroller & Auditor General of India are also obtained before finalising the list. ***As per the provisions of relevant enactments:***

- The auditors of Private Banks are appointed at the Annual General Meeting of the shareholders.
- The auditors of Public Sector Banks are appointed by their Board of Directors. (As per RBI guidelines)

Some of the Important Auditing, Review and Other Standards applicable to the audit of Financial Statements as prescribed by the Institute ***of Chartered Accountants of India are given below:***

- 300 (Revised) Planning and Audit of Financial Statements
- 220 (Revised) Quality Control for an Audit of Financial Statements
- 210 (Revised) Agreeing to terms of Audit Engagement
- 510 (Revised) Initial Audit Engagements - Opening balances
- 315 Identifying and Assessing the Risks of Material Misstatements through Understanding the entity and its environment
- 299 Responsibility of Joint Auditors
- 600 Using the work of Another Auditor
- 250 Consideration of Laws and Regulations in an Audit of Financial Statements
- 240 The Auditor's Responsibilities Relating to Fraud in an Audit of Financial Statements
- 330 The Auditors Responses to Assessed Risks

Various Other Types Of Audits Undertaken By Banks

Other than Concurrent Audit, Internal Audit & Statutory Audit, banks undertake the following types of audits:

- **Revenue Audit (known as Income & Expenditure audit)** Revenue Audit is usually conducted at Exceptionally Large/Very Large/Large and Medium branches and is aimed at identifying cases related to leakage of interest and other charges.
- **Stock and Receivables Audit** In terms of extant RBI guidelines, stock audits may be assigned to qualified professionals (Chartered Accountants/Cost Accountants/consultants) periodically, say annually to check on the stock and



book debts statements submitted by the borrowers to the bank. Only large borrower accounts are normally are subjected to this audit.

- **Forensic Audit** Forensic Audit is an examination and evaluation of a firm's or individual's financial information for use of evidence in court. Concept of Forensic Audit may be defined as "A concentrated audit of all the transactions of the entity to find the correctness of such transactions and to report whether or not any financial benefit has been attained by way of presenting an unreal picture.
- **Management Audit** Management Audit is an assessment of methods and policies of an organisation's management in the administration and the use of resources, tactical and strategic planning and employee and organisational improvement. The main objective of management audit is to see how far the objectives of management are fulfilled. It aims to ascertain whether sound management prevails throughout the organisation and evaluates its efficiency in the system of its operation.
- **Tax Audit including Goods and Services Tax (GST)** Audit This is an analysis of the tax returns submitted by an individual or business entity, to see if the tax Information and resulting income tax payment is valid. Statutory auditors of Banks usually deal with provision for Taxation & GST.

JAIIB AFM Module B: Financial Statements and Core Banking Systems

No. of Unit	Unit Name
Unit 1	Balance Sheet Equation
Unit 2	Preparation of Final Accounts
Unit 3	Company Accounts — I
Unit 4	Company Accounts — II
Unit 5	Cash Flow and Funds Flow
Unit 6	Final Accounts Of Banking Companies
Unit 7	Core Banking Systems and Accounting in Computerized Environment

JAIIB AFM Module B Unit -1 Balance Sheet Equation

Balance Sheet Equation



An Accounting Equation is also called the Balance Sheet Equation. We all know that we record all the business transactions using the Dual Aspect concept. This means that each debit has an equal credit and vice-versa.

- **Capital:** It means the amount which the owner of business has invested in the firm and can claim from the firm.
- **Liability:** It means the amount which the firm owes to outsiders. Long term liabilities are those liabilities which are payable after a long term. Current liabilities are those liabilities which are payable in near future (generally within one year).
- **Asset:** Assets are things of value owned. Fixed assets are those assets which are purchased for the purpose of operating the business but not for resale, e.g. Land, building, Plant and Machinery, etc. Current assets are those assets which are kept for short term for converting into cash or for resale, e.g. unsold goods, debtors, cash, bank balance, etc.

Assets = Liabilities + Capital (Owner's Equity)

Liabilities = Assets - Capital or Capital = Assets - Liabilities

Example:

ABC starts the food truck. He puts ₹ 50,000 as a capital fund. He further loans ₹ 25,000 from a local credit vendor. Now, he has a total of ₹ 75,000, he then purchases a fully furnished truck for ₹ 45,000.

Below is the ABC balance sheet for December 2017.

Balance Sheet			
December 31, 2017			
Assets		Liabilities	
Cash	30,000	Loan from credit union	25,000
Food truck	45,000	Owner's equity	50,000
Total assets	75,000	Total Liabilities and Owner's equity	75,000

Computation Of Balance Sheet Equation

If there is any change in the amount of the assets or the liabilities, the owners' claim or the capital is bound to change correspondingly. If assets increase and liabilities do not, the capital will increase; a reduction in the amount of assets or an increase in the amount of liabilities will mean a reduction in the amount of capital. Such balance sheet equations will be clearer by the various transactions given below:



<i>Assets</i>		<i>Capital + Liabilities</i>	
Cash	}		
Bank		Capital + reserves and surplus	
Bills Receivable		Creditors	
Debtors		Bills payable	
Stock in trade		=	Outstanding expenses
Furniture			Bank Overdraft
Machinery			
Building			





1. He commences his business with ₹ 20,000 as capital.

This means that the firm has assets totalling ₹ 20,000 in the form of cash and claims against the firm are also ₹ 20,000 in the form of capital. The balance sheet stands as follows:

Balance Sheet 1

Liabilities	₹	Assets	₹
R's Capital	20,000	Cash	20,000

2. The business purchased a machinery of ₹ 1,000. The effect of this transaction is that amount of cash in hand is lower by ₹ 1,000, but a new asset (machinery) has been acquired leaving the total assets unchanged. The balance sheet after this transaction will appear as follows:

Balance Sheet 2

Liabilities	₹	Assets	₹
R's Capital	20,000	Cash (20,000 – 1,000)	19,000
		Machinery (0 + 1,000)	1,000
Total	20,000	Total	20,000

3. The business purchases goods for ₹ 2,000 for cash.

The effect of this transaction is that amount of cash in hand is lower by ₹ 2,000, but a new asset (stock of goods) has been acquired leaving the total assets unchanged. The balance sheet after this transaction will appear as follows:

Balance Sheet 3

Liabilities	₹	Assets	₹
R's Capital	20,000	Cash (19,000 – 2,000)	17,000
		Machinery (1,000 + 0)	1,000
		Goods (0 + 2,000)	2,000
Total	20,000	Total	20,000

4. The business purchases goods for ₹ 5,000 on credit. Because of this transaction, the stock of goods increased by ₹ 5,000 making the total assets ₹ 25,000. Now ₹ 5,000 is payable to the supplier of goods (creditor).

The balance sheet after this transaction will appear as follows:

Balance Sheet 4

Liabilities	₹	Assets	₹
R's Capital	20,000	Cash (17,000 – 0)	17,000
Creditor (0 + 5,000)	5,000	Machinery (1,000 + 0)	1,000
		Goods (2,000 + 5,000)	7,000
Total	25,000	Total	25,000

JAIIB AFM Module B Unit 2- Preparation of Final Accounts

Preparation of Trial Balance

The first step in the preparation of final accounts is the preparation of trial balance. So it is absolutely essential that we prepare the trial balance perfectly, so our final accounts do not contain any errors. Let us learn more about the methods and procedures of preparation of trial balance.



Trial Balance

A trial balance is a bookkeeping worksheet-like account that **reflects all the credit and debit balances of all the ledger accounts**. Once we prepare this statement, we can prepare the final accounts of the company on the basis of this trial balance.

One other important use of the trial balance is that it can determine the arithmetic accuracy of the accounts. So if both columns of the trial balance tally, we can be reasonably assured of the accuracy of the accounts. It does not ensure that the accounts are free of all errors but it can at least establish mathematical accuracy.

Trial Balance (ABC Trading as at 30 June 2018)

General ledger A/C	Dr. Debit	Cr. Credit
Cash at bank	10000	
Inventory	40000	
Vehicles	30000	
Fixtures and Fitting	32000	
Accounts Receivable	15000	
Credit card Payment		12000
Account payable		15000
Bank Loan		50000
Sales		175,000
Purchases	60,000	
Advertising	5000	
Wages	65000	
Rent	15000	
Electricity	5000	
Owner Capital		25000
Total	277,000	277,000

Adjustment Entries

An accountant or a bookkeeper makes adjustment entries either before preparation of trial balance or after preparation of trial balance.



Usually, adjustment entries are made after preparation of trial balance. In a case when he makes the adjustment entries after preparation of trial balance, he needs to treat each of the adjustment twice while preparing trading and profit and loss account and balance sheet.

In case adjustment entries made before preparation of trial balance, such adjustment appears in the trial balance. Also, such adjustments appear only once in the preparation of final accounts.

Adjustment Entries Relating to Income and Expendure

Some of the expenses may have been incurred but not paid: For example- Salary for the month of March has been incurred during the month but will be paid in April. For this, adjusting entries, will be passed in the ledger by debit to charges (salary) account and credit to "Salary payable" account.

Some of the expenses may have been paid in advance but not incurred: If a payment has been made in advance i.e. it does not pertain to the accounting period in question, it is not treated as an expense, and the person who received the amount is treated as a debtor.

Some income may have accrued but not received: For example, interest accrued on a fixed deposit with the bank which will be paid by the bank on maturity along with the principal. For accounting the interest income, credit 'Interest income' account and debit 'interest receivable' account.

Some incomes may have been received but not accrued: If an income has been received but not accrued, it should not be accounted for. For example, advance payment of rent by a tenant. This should not be taken into account. Therefore, rent account should be debited and 'Advance rent Received' account should be debited.

Preparation of Financial Statements from Trial Balance

If we have recorded all the transactions, their arithmetical accuracy has been checked by the trial balance and the required adjusting entries have been made, we should be able to find out the results of the operations during the accounting period (day year) and also know the financial position of the business at the close the year.

This is done through preparing the Profit and loss account and the Balance sheet (Both these are called the financial statements).

Entries Relating to Depreciation of Fixed Assets

Before we can start preparing the financial statements, it is important to pass entries for depreciation to include it in the records as an expense.

Entries Relating to closing stocks

Every sales transaction results in reduction in available stocks and every purchase transaction increases the stocks available in the godown. However, the entries passed in the ledger, do not affect the stocks account:

**Example-**

Purchase of goods worth Rs 2000 results in the following postings in the ledger-

Dr. Purchase A/C Rs. 2000

Cr. Cash A/c Rs. 2000

Similarly, sales of goods for Rs. 500 result in the following posting in the ledger-

Dr. Cash A/c Rs. 5000

Cr. Sales A/c Rs 5000

As no entry is passed in the stocks account during the year, the balance in it remains the same as in the beginning of the year, i.e. the opening balance of the stock (this is a debit balance and is shown in the balance sheet of the last year as closing stock)

As we will see in our discussion in the **P/L account, the Profit= sales- (purchases+ opening stock-closing stock+ expenses)**

In the above formula, all items, except the closing stock, are available from the ledger. As the amount of the closing stock is not available from the ledger, we will have to actually verify the available stock at the close of the year and value it. This is called 'Inventory Valuation' and has its impact on the Profit or loss of the firm during that year.

Entries Relating to other items

Other adjustments pertain to provision for bad and doubtful debts, writing off part fictitious assets like preliminary expenses etc. provisioning for contingent events etc.

Preparation of Profit and loss account**Closing Entries**

At the end of each accounting period, all the income and expenses accounts should be closed by transferring the balance to the P & L account. The entries passed for this purpose are called Closing Entries.

Example: If the salary account is showing the debit balance of Rs 300000 a credit entry 'By transfer to P&L account' will be posted in this account and debit entry will be posted to P & L account. Thus balance in the salary account will become Nil.

Trading Account

This is not a necessary step for preparation of the P & L account but many accountants prefer to prepare it. It forms part of the P & L account. A trading account takes into account only the direct costs associated with the materials in which the firm is dealing. The operating costs are not included. This means that we calculate the '**Cost of Goods Sold**' and subtract it from the Revenue to arrive at what is called '**Gross Profit**'. It is important to note here that under 'Cost of Goods Sold', we calculate the cost of only those goods which are sold and not the cost of entire goods purchased. If we have only purchased the goods during a year and not sold anything, there will be no cost



associated with selling of goods as the purchase resulted in only increasing the inventory (**Closing stock**).

Cost of Goods Sold= (purchases + opening stock)- closing stock + expenses

Preparation of Profit and Loss account

There are prescribed formats for preparing Profit and loss accounts for all the companies in India. Such form is either provided in the Companies Act 2013 or the Banking Regulation Act or some other Act for specific types of companies. However, for other business entities, there is no prescribed format. Traditionally, all the formats used put sales and other incomes on the credit side and all the expenses on the debit side and arrive at the profit figure. This is achieved by passing the closing entries in respect of all the earnings and expenses accounts in the General Ledger so that the balances in all the remaining accounts in the GL, form the balance sheet, discussed in the next paragraphs. A typical format of a P & L account may be as under if the practice of preparation a Trading account is followed:

Profit and Account of			
For the year ending 2019.....			
To salary		By Gross profit carried over	
		From Trading a/c	
To electricity charges		Gross Loss	
To conveyance charges			
To depreciation			
To office charges			
To other charges			
To Taxes			
Net Profit			

If the practice of preparing the Trading account is not followed, the format may look as under.

Profit and loss Account of			
For the year ending 2019.....			
To opening stock		By sales	
To purchases		Less returns	
.....			
Less returns		By closing stock	



To carriage inwards	.....	Gross loss	.....
To cartage	.....		
To dock charges	.....		
To Wages	.....		
To duty	.....		
To Freight	.....		
To clearing charges	.....		
To salary	.....		
To electricity			
To telephone charges			
To conveyance charges			
To office charges	.....		
To other charges	.....		
To taxes			
Net Profit	.....		

Profit and loss Appropriation account

Net profit, as arrived at in the P&L A/c, is utilized by the company, **for providing dividend, dividend distribution tax, adjustments to income tax and transfer to reserves etc.** This is done through the profit and loss Appropriation account.

Profit and loss Appropriation account is different from profit and loss account and is normally **put before the net profit figure in the same statement.** The net profit is transferred to the credit side of profit and loss appropriation account. Profit and loss account shows only the net profit or net loss from operations of business while the profit and loss appropriation accounts shows all non- operational adjustment.

A typical format of this account is given below. The items included may vary from company to company.

Particulars	Amount	Particulars	Amount
To transfer to reserves		By last year's balance brought down	.....
To debenture redemption reserve		By net profit of the year brought down	.....



To additional income tax provision for earlier year	.....	By excess income tax provision of earlier years	.....
To interim dividend	.....		
To dividend/ Proposed dividend	.....		
To surplus carried over to the balance sheet	.....		
Total	.....	Total	.....

Preparation of Balance Sheet

Below are the steps mentioned to prepare a balance sheet.

Compose a trial balance- It is a regular report included in any accounting programme. If it is a manual mode, then create a trial balance by transferring every general ledger account's ending balance to a spreadsheet.

Arrange the trial balance- It is important to arrange the initial trial balance to assure that the balance sheet similar to the relevant accounting structure. While using adjusting entries to adjust the trial balance all the entry should be completely recorded so the auditors can understand why it was made.

Discard all expense and revenue accounts- The trial balance includes expenses, revenue, losses, gains, liabilities, equity, and assets. Delete all from the trial balance except equity, liabilities, and assets. However, the deleted accounts are used to create an income statement.

Calculate the remaining accounts- In this stage, sum up all the trial balance account used to create a balance sheet. The typical line items used in the balance sheet are:

- Cash
- Accounts receivable
- Inventory
- Fixed assets
- Other assets
- Accounts payable
- Accrued liabilities
- Debt
- Other liabilities
- Common stock



- Retained earnings

Validate the balance sheet- The total for all assets recorded in the balance sheet should be similar to the liabilities and stockholders' equity accounts.

Present in the required balance sheet format

Liabilities	Amount	Asset	Amount
Capital		Fixed Asset-land, Bldg	.....
Loan Taken		Current Assets	.....
Current Liabilities		Cash/Bank B/s	.....
Outstanding Expenses		Accounts Receivable (Debtors)	.....
Bank Overdraft		Bills Receivable	.....
Account Payable (Creditors)		Inventories (stock)	.....
	XYZ		XYZ

JAIIB AFM Module B Unit 3- Company Accounts-1

Company

A company is an association of persons who contribute money or money's worth to a common stock and uses it for a common purpose. It is created by law and effected by law. It is a legal person just as much as an individual but with no physical existence.

Section 20 of the Companies Act, 2013, defines a company as A company incorporated under this act, or under any previous company law.

Features of a Joint stock Company

- Incorporated association
- Artificial person
- Perpetual succession
- Common seal
- Limited liability
- Separation of management from ownership
- Transferability of shares



- Separate legal status
- Large membership
- Minimum paid up capital: It is Rs 1 lakh Private LTD. Company and 5 lakhs for a Public LTD company.

Types of companies

On the basis of incorporation	On the basis of ownership	On the basis of liability
Chartered company	Private company	Company limited by shares
Statutory company	Public company	Company Ltd. by guarantee
Registered company	Government company	Company with unlimited liability
Foreign company	Holding company	

- **Chartered company:** A chartered company is one that is established under a special charter issued by the King or Emperor or a Head of State. Such companies are not found in India. Chartered companies established in European countries are East India Company, Bank of England.
- **Statutory company:** A statutory company is one that is created or incorporated by a special Act passed by the Central or State Legislature. The Statutory companies are owned by Government and are given independent legal status, e.g. Life Insurance Corporation of India, Air India, Food Corporation of India, etc.
- **Registered company:** A company registered under the provisions of Companies Act is known as a registered company. In India, examples of companies registered under the Indian Companies Act are Tata Consultancy Services Ltd., WIPRO Ltd., Videocon International Ltd., Reliance Industries Ltd., and so on.
- **Foreign company:** A Foreign company is a company which is incorporated outside India but has a place of business in India, e.g. Hongkong and Shanghai Banking Corporation Ltd.
- **Private company:** A private company is a company that by its articles: (a) except in case of one person company limits the number of its members to two hundred, (b) restricts the right to transfer its shares, and (c) prohibits any invitation to the public to subscribe for any security of the company.
- **Public company:** Section 2 (71)(Chapter I) of the Indian Companies Act, 2013, defines a public company as a company which is not a private company. This means there is no restriction on the number of members and shares are freely transferable.



- **Government company:** Any company in which not less than 51 per cent of the paid-up share capital is held by the Central Government or by any State Government or partly by Central Government and partly by one or more State Governments, is a Government Company.
- **Holding company:** Section 2 (46) (Chapter I) of the Companies Act 2013: a Holding company, in relation to one or more subsidiary companies, means a company of which such companies are subsidiary companies.
- **Associate Company:** In relation to another company, Associate Company means a company in which that other company has a significant influence, but which is not a subsidiary company of the company having such influence and includes a joint venture company.
- **One Person Company:** One Person Company means a company which has only one person as a member.
- **Subsidiary company:** Section 2(87) (Chapter I) of the Companies Act, 2013 defines a subsidiary company as a company in which the Holding Company (i) controls the composition of the Board of Directors: or. (ii) exercises or controls more than one-half of the total share capital either at its own or together with one or more of its subsidiary companies.
- **Company limited by shares:** It is a company in which liability of its members is limited by memorandum to the amount, if any, unpaid on the shares respectively held by them. Most of the companies in India are companies with limited liability.
- **Company limited by guarantee:** It is a company in which liability of a member is fixed to a certain amount and he is liable to pay that much amount in the event of winding up of the company. This amount is called the 'Guarantee'. Such companies are generally floated for the promotion of sports, education, religion, fine art, etc., and are essentially non-profit making organisations.
- **Company with unlimited liability:** It is a company in which the liability of a member is unlimited. Such a company can be incorporated with or without share capital.

Partnership Vs Limited Liability Partnership (LLP)

BASIS FOR COMPARISON	PARTNERSHIP	LIMITED LIABILITY PARTNERSHIP (LLP)
Meaning	Partnership refers to an arrangement wherein two or more person agree to carry on a business and share profits & losses mutually.	Limited Liability Partnership is a form of business operation which combines the features of a partnership and a body corporate.
Governed By	Indian Partnership Act, 1932	Limited Liability Partnership Act, 2008
Registration	Optional	Mandatory



Charter document	Partnership deed	LLP Agreement
Liability	Unlimited	Limited to capital contribution, except in case of fraud.
Contractual capacity	It cannot enter into contract in its name.	It can sue and be sued in its name.
Legal Status	Partners are collectively known as firm, so there is no separate legal entity.	It has a separate legal status.
Name of firm	Any name	Name containing LLP as suffix
Maximum partners	100 partners	No limit
Property	Cannot be held in the name of firm.	Can be held in the name of the LLP.
Perpetual Succession	No	Yes
Audit of accounts	Not mandatory	Mandatory, only if turnover and capital contribution overreaches 40 lakhs and 25 lakhs respectively.
Relationship	Partners are agents of firm and other partners as well.	Partners are agents of LLP only.

Classes of Share Capital

Share capital of a company limited by shares can be two kinds

- Equity share
- Preference share

Equity share capital means that part of share capital which is not preference share capital. Preference shares can be further classified as under:

- Cumulative
- Redeemable
- Participating



Share capital can be classified in a different way as to:

- Authorised capital
- Issued capital
- Subscribed Capital
- Called up capital
- Paid-up capital

Issue of Shares

Issue Of Share At Par

• Bank • Share application	Debited	 credited
• Share application • share capital	Debited	 Credited
Over subscription • share application • share capital • bank (refund) • share allotment	Debited	 Credited Credited Credited

Share Allotment/Share Call

• Share allotment a/c • Share capital a/c	Debited	 Credited
• Bank a/c • Share allotment a/c	Debited	 Credited
• Share call a/c • Share capital a/c	Debited	 Credited
• Bank a/c • Share call a/c	Debited	 Credited
• Calls in arrears a/c • Share allotment a/c • Share call a/c	Debited	 Credited Credited

Issue of shares at premium



• Share application/ allotment a/c	Debited	 Credited
• Share capital A/c	.....	Credited
• Share premium A/c		

Issue of shares at discount

• Share allotment A/c	Debited	.....
• Discount on issue of shares A/c	Debited	.....
• Share capital A/c	.....	Credited

Forfeiture of shares

• Share capital A/c	Debited	.....
• Call in arrears A/c	.....	Credited
• Forfeited shares A/c	.....	Credited

Re-issue of shares

• Bank A/c	Debited	.....
• Forfeited shares A/c	Debited	.....
• Share capital A/c	.....	Credited
• Capital reserve A/c	.....	Credited

Issue of Bonus shares

• Capital Redemption Reserve A/c	Debited	.....
• Share premium A/c	Debited	.....
• Capital reserve A/c	Debited	.....
• Gen Reserve A/c	Debited	.....
• Profit & Loss A/c	.....	credited
• Bonus to shareholders A/c		
• Bonus to shareholders A/c	Debited	.....
• Equity share capital A/c	.....	credited

Non- Voting Shares

Section 43 of the Companies Act 2013, Provided that share capital of the company shall consist of the following:

- Equity shares with voting rights
- Equity shares with differential rights as to dividend, voting or otherwise in accordance with such rules as may be prescribed; and



- Preference share capital

The demand for non-voting equity shares has been made by several sections of the industry basically on the ground that they do exist in many other countries and also provide a measure to the management to tap a class of investors who are interested in higher dividend against absence of voting rights.

There are some conditions for issue of non-voting equity share follow:

- Issue of non-voting equity shares shall be authorized by the Articles of Association of the company and approved by the shareholders at their general body meeting by passing a special resolution.
- Special resolution must state the price at which the shares can be issued and higher rate of dividend which non-voting equity shares shall carry.
- Such shareholders are entitled to all rights and bonus shares but do not enjoy voting rights.
- Only 25% of the paid-up capital of the company can be issued as equity shares without voting rights.
- Only a public company limited by shares can issue non-voting equity shares.
- Non company will be permitted to convert shares with voting rights into shares without voting rights.
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JAIIB AFM Module B Unit 4 - Company Accounts – II

Part II—Statement of Profit and Loss

- Name of the Company..... Profit and loss statement for the year ended(Rupees in...)



Particulars	Note No.	Figure as at the end of current reporting period	Figure as at the end of previous reporting period
1	2	3	4
I. Revenue from operations II. Other income III. Total Revenue (I + II) IV. Expenses: Cost of materials consumed Purchases of Stock-in-Trade Changes in inventories of finished goods work-in-progress and Stock-in-Trade Employee benefits expense Finance costs Depreciation and amortisation expense Other expenses Total expenses V. Profit before exceptional and extraordinary items and tax (III–IV) VI. Exceptional items VII. Profit before extraordinary items and tax (V–VI) VIII. Extraordinary items IX. Profit before tax (VII–VIII) X. Tax expense: (1) Current tax (2) Deferred tax XI. Profit (Loss) for the period from continuing operations (VII–VIII) XII. Profit/(loss) from discontinuing operations XIII. Tax expense of discontinuing operations XIV. Profit/(loss) from Discontinuing operations (after tax) (XII–XIII) XV. Profit (Loss) for the period (XI + XIV) XVI. Earnings per equity share: (1) Basic (2) Diluted			

General Instructions for Preparation of Statement of Profit and Loss

i) Apply to the income and expenditure a/c referred to in subclause (ii) of clause (40) of section 2 in like manner as they apply to a statement of profit and loss.

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

- Sale of products;
- Sale of services;
- Other operating revenues;

Less:



- Excise duty.

In respect of a finance company, revenue from operations shall include revenue from:

- Interest; and
- Other financial services.

Revenue under each of the above heads shall be disclosed separately by way of notes to accounts to the extent applicable.

iii) Finance Costs

Finance costs shall be classified

- Interest expense;
- Other borrowing costs;
- Applicable net gain/loss on foreign currency transactions and translation.

iv) Other income

- Interest Income (in case of a company other than a finance company);
- Dividend Income;
- Net gain/loss on sale of investments;
- Other non-operating income (net of expenses directly attributable to such income).

v) Additional Information

A Company shall disclose by way of notes additional information regarding aggregate expenditure and income on the following items:

(a) Employee Benefits Expense [showing separately

- Salaries and wages,
- Contribution to provident and other funds,
- Expense on Employee Stock Option Scheme (ESOP) and Employee Stock Purchase Plan (ESPP),
- Staff welfare expenses].

(b) Depreciation and amortization expense;

(c) Any item of income or expenditure which exceeds one per cent. of the revenue from operations or Rs. 1,00,000, whichever is higher;

(d) Interest Income;

(e) Interest expense;

(f) Dividend income;

(g) Net gain/loss on sale of investments;

(h) Adjustments to the carrying amount



(i) To the auditor as

Auditor; Net gain or loss on foreign currency transaction and translation (other than considered as finance cost);

(j) Payments

- for taxation matters;
- for company law matters;
- for management services;
- for other services; and
- for reimbursement of expenses;

(k) In case of Companies covered under section 135, amount of expenditure incurred on corporate social responsibility activities;

(l) Details of items of exceptional and extraordinary nature;

(m) Prior period items;

(ii) (a) In the case of manufacturing companies,

- Raw materials under broad heads.
- Goods purchased under broad heads

(b) In the case of trading companies, purchases in respect of goods traded in by the company under broad heads.

(c) In the case of companies rendering or supplying services, gross income derived from services rendered or supplied under broad heads.

(d) In the case of a company, which falls under more than one of the categories mentioned in (a), (b) and (c) above, it shall be sufficient compliance with the requirements herein if purchases, sales and consumption of raw material and the gross income from services rendered is shown under broad heads.

(e) In the case of other companies, gross income derived under broad heads.

(iii) In the case of all concerns having works in progress, works-in-progress under broad heads.

iv)

- The aggregate, if material, of any amounts set aside or proposed to be set aside, to reserve, but not including provisions made to meet any specific liability, contingency or commitment known to exist at the date as to which the balance sheet is made up.
- The aggregate, if material, of any amounts withdrawn from such reserves.

(v)

- The aggregate, if material, of the amounts set aside to provisions made for meeting specific liabilities, contingencies or commitments.



- The aggregate, if material, of the amounts withdrawn from such provisions, as no longer required.

(vi) Expenditure incurred on each of the following items, separately for each item:

- Consumption of stores and spare parts;
- Power and fuel;
- Rent;
- Repairs to buildings;
- Repairs to machinery;
- Insurance;
- Rates and taxes, excluding, taxes on income;
- Miscellaneous expenses

(vii)

- Dividends from subsidiary companies.
- Provisions for
- losses of subsidiary companies.

(viii) The profit and loss account shall also contain by way of a note the following information, namely:

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

- Raw materials;
- Components and spare parts;
- Capital goods.

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

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

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

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

- Export of goods calculated on F.O.B. basis;
- Royalty, know-how, professional and consultation fees;
- Interest and dividend;
- Other income, indicating the nature thereof.



General Instructions for the Preparation of Consolidated Financial Statements

Where a company is required to prepare Consolidated Financial Statements, i.e., Consolidated balance sheet and consolidated statement of profit and loss, the company shall mutatis mutandis follow the requirements of this Schedule as applicable to a company in the preparation of balance sheet and statement of profit and loss.

In addition, the consolidated financial statements shall disclose the information

- Profit or loss attributable to “minority interest” and to owners of the parent in the statement of profit and loss shall be presented as allocation for the period.
- Minority interests” in the balance sheet within equity shall be presented separately from the equity of the owners of the parent.

Impact Of Ind as On Financial Statements

Indian Accounting Standard-1 (Ind AS-1), is about the presentation of financial statements. Ind AS-1 lists the following as a complete set of financial statements:

- A balance sheet as at the end of the period
- A statement of profit and loss for the period
- Statement of changes in equity for the period
- Statement of cash flows for the period
- Notes, comprising a summary of significant accounting policies and other explanatory information
- Comparative information in respect of the previous accounting period and
- A balance sheet as at the beginning of the preceding period when an entity applies an accounting policy retrospectively.

Presentation of Balance sheet;

Ind AS-1 prescribes that the balance sheet shall include line items that present the following amounts:

- Property, plant and equipment;
- Investment property;
- Intangible assets;
- financial assets (excluding amounts shown under (e), (h) and (i));
- Investments accounted for using the equity method;
- Biological assets within the scope of Ind AS 41 Agriculture;
- Inventories;
- Trade and other receivables;
- Cash and cash equivalents;



- The total of assets classified as held for sale and assets included in disposal groups classified as held for sale in accordance with Ind AS 105, Non-current Assets Held for Sale and Discontinued Operations;
- Trade and other payables;
- Provisions;
- Financial liabilities (excluding amounts shown under (k) and (l));
- Liabilities and assets for current tax, as defined in Ind AS 12, Income Taxes;
- Deferred tax liabilities and deferred tax assets, as defined in Ind AS 12;
- Liabilities included in disposal groups classified as held for sale in accordance with Ind AS 105;
- Non-controlling interests, presented within equity; and
- Issued capital and reserves attributable to owners of the parent.

It also provides the following guidelines regarding the balance sheet:

i) When an entity presents current and non-current assets, and current and non-current liabilities, as separate classifications in its balance sheet, it shall not classify deferred tax assets (liabilities) as current assets (liabilities).

ii) Current assets: An entity shall classify an asset as current when:

- it expects to realise the asset, or intends to sell or consume it, in its normal operating cycle;
- it holds the asset primarily for the purpose of trading;
- it expects to realise the asset within twelve months after the reporting period; or
- the asset is cash or a cash equivalent (as defined in Ind AS 7) unless the asset is restricted from being exchanged or used to settle a liability for at least 12 months after the reporting period.

iii) Current liabilities: An entity shall classify a liability as current when:

- it expects to settle the liability in its normal operating cycle;
- it holds the liability primarily for the purpose of trading;
- the liability is due to be settled within twelve months after the reporting period; or
- it does not have an unconditional right to defer settlement of the liability for at least twelve months after the reporting period. Terms of a liability that could, at the option of the counterparty, result in its settlement by the issue of equity instruments do not affect its classification.

iv) An entity shall disclose, either in the balance sheet or in the notes, further sub-classifications of the line items presented, classified in a manner appropriate to the entity's operations.

v) An entity shall disclose the following, either in the balance sheet or the statement of changes in equity, or in the notes:

(a) for each class of share capital:



- The number of shares authorised;
- The number of shares issued and fully paid, and issued but not fully paid;
- Par value per share, or that the shares have no par value;
- A reconciliation of the number of shares outstanding at the beginning and at the end of the period;
- The rights, preferences and restrictions attaching to that class including restrictions on the distribution of dividends and the repayment of capital;
- Shares in the entity held by the entity or by its subsidiaries or associates; and
- shares reserved for issue under options and contracts for the sale of shares, including terms and amounts: and

(b) A description of the nature and purpose of each reserve within equity.

Presentation of Statement of Profit and Loss

- An entity should present a single statement of profit and loss, with profit or loss and other comprehensive 'income presented in two sections.
- The sections shall be presented together, with the profit or loss section presented first followed directly by the other comprehensive income section.
- Ind AS-1 prescribes certain line items amount of which should appear in this statement, at the minimum.

It also provides the following guidelines regarding this Statement:

- An entity shall present additional line items, headings and subtotals in the statement of profit and loss when such presentation is relevant to an understanding of the entity's financial performance.
- An entity shall not present any items of income or expense as extraordinary items, in the statement of profit and loss or in the

Statement of Change in Equity

- **Paragraph 10 of Ind AS-1 :** An entity is required to present a statement of changes in equity, as one of the financial statements.
- Ind AS-1 prescribes the following information to be presented in the statement of changes in equity

(a) Total comprehensive income for the period, showing separately the total amounts attributable to owners of the Parent and to non-controlling interests.

(b) for each component of equity, the effects of retrospective application or retrospective restatement recognised in accordance with Ind AS 8; and

(c) for each component of equity, a reconciliation between the carrying amount at the beginning and the end of the period, separately (as a minimum) disclosing changes resulting from:

- Profit or loss;
- Other comprehensive income; and



- Transactions with owners in their capacity as owners, showing separately contributions by and distributions to owners and changes in ownership interests in subsidiaries that do not result in a loss of control.
- Any item recognised directly in equity such as amount recognised directly in equity as capital reserve with paragraph 36A of Ind AS.

Statement of Cash Flows

- This is also part of the set of financial statements as prescribed in Paragraph 10 of Ind AS-1.
- Cash flow information provides users of financial statements with a basis to assess the ability of the entity to generate cash and cash equivalents and the needs of the entity to utilise those cash flows.
- Ind AS 7 sets out requirements for the presentation and disclosure of cash flow information.

Notes

- Paragraph 10 of Ind AS-1: Notes are part of the set of financial statements as prescribed
- **This Standard mentions the following guidelines regarding Notes:**

i) The notes shall:

- Present information about the basis of preparation of the financial statements and the specific accounting policies used;
- Disclose the information required by Ind ASs that is not presented elsewhere in the financial statements; and
- Provide information that is not presented elsewhere in the financial statements, but is relevant to an understanding of any of them.

ii) An entity shall present notes in a systematic manner. An entity shall cross-reference each item in the balance sheet and in the statement of profit and loss and in the statements of changes in equity and of cash flows to any related information in the notes.

iii) An entity normally presents notes in the following order, to assist users to understand the financial statements and to compare them with financial statements of other entities:

- Statement of compliance with Ind ASs
- Significant accounting policies applied
- Supporting information for items presented in the balance sheet and in the statement of profit and loss and in the statements of changes in equity and of cash flows, in the order in which each statement and each line item is presented; and
- Other disclosures, including:



- a) Contingent liabilities (see Ind AS 37) and unrecognised contractual commitments; and
- b) Non-financial disclosures, e.g. the entity's financial risk management objectives and policies (Ind AS 107).

Disclosure of accounting policies

An entity shall disclose in the summary of significant accounting policies:

- The measurement basis (or bases) used in preparing the financial statements, and
- The other accounting policies used that are relevant to an understanding of the financial statements.

Presentation of Comparative Information

Paragraphs 38, 38A and 38B of Ind AS-1, prescribe the minimum comparative information in respect of preceding period, as under:

- **Para 38 of Ind AS-1:** Except when Ind ASs permit or require otherwise, an entity shall present comparative information in respect of the preceding period for all amounts reported in the current period's **financial statements**.

Para 38A: An entity shall present, as a minimum,

- 2 balance sheets,
- 2 statements of profit and loss,
- 2 separate statements of profit and loss,
- 2 statements of cash flows and
- 2 statements of changes in equity, and related notes.
- **Para 38B:** In some cases, narrative information provided in the financial statements for the preceding period(s) continues to be relevant in the current period.
- **For example,** an entity discloses in the current period details of a legal dispute, the outcome of which was uncertain at the end of the preceding period and is yet to be resolved.
- Users may benefit from the disclosure of information that the.

Uncertainty existed at the end of the preceding period and from the disclosure of information about the steps that have been taken during the period to resolve the uncertainty.

Change in Accounting Policy, Retrospective Restatement or Reclassification

Para 40A of Ind AS-1 : An entity shall present a third balance sheet as at the beginning of the preceding period in addition to the minimum comparative financial statements required in paragraph 38A if:



- it applies an accounting policy retrospectively, makes a retrospective restatement of items in its financial statements or reclassifies items in its financial statements; and
- the retrospective application, retrospective restatement or the reclassification has a material effect on the information in the statement of financial position at the beginning of the preceding period.

Para 41 of Ind AS-1 mentions that if an entity changes the presentation or classification of items in its financial statements, it shall reclassify comparative amounts unless reclassification is impracticable.

- When an entity reclassifies comparative amounts, it shall disclose (including as at the beginning of the preceding period):
- The nature of the reclassification.
- The amount of each item or class of items that is reclassified; and
- The reason for the reclassification.

Para 42 states that when it is impracticable to reclassify comparative amounts, an entity shall disclose:

- The reason for not reclassifying the amounts, and
- The nature of the adjustments that would have been made if the amounts had been reclassified.

Preparation of Consolidated Financial Statements

- Ind AS-110 requires an entity (the parent) that controls one or more other entities (subsidiaries) to present consolidated financial statements.
- It defines the principle of control, and establishes control as the basis for consolidation;
- It further sets out the accounting requirements for the preparation of consolidated financial statements; and defines an investment entity and sets out an exception to consolidating particular subsidiaries of an investment entity.
- This Ind AS does not deal with the accounting requirements for business combinations and their effect on consolidation including goodwill arising on a business combination.

JAIIB AFM Module B Unit 5: Cash Flow and Funds Flow

Introduction

- A cash flow statement, prepared for a period, tells us the position of cash at the beginning and end of that period.
- Cash also includes Cash equivalents.



- Cash equivalents are short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.
- Information about the cash flow of an enterprise is useful in providing users of financial statements a basis to assess the ability of the enterprise to generate cash and cash equivalents.

Components Of Cash Flow

- *Let us take the example of a simple trading enterprise which starts its business on 1/04/2022 with its assets and liabilities as under:*

BALANCE SHEET AS AT THE END OF 1/04/2022

LIABILITES		ASSETS	
Capital	₹ 1,00,000	Cash	₹ 1,00,000

- *On 2/04/2022, the firm buys wheat for Rs. 90,000 for cash and sells it for Rs. 95,000 on cash basis. Its balance sheet changes as under:*

BALANCE SHEET AS AT THE END OF 2/04/2022

LIABILITES		ASSETS	
Capital	₹ 1,00,000	Cash	₹ 1,05,000
P& L account	₹ 5,000		

It is easy to see that there is a cash inflow of ₹ 5,000 during the day, due the trading activity, which we call "Operating activity" in Accounting parlance. On 3/04/2022, the firm buys wheat for ₹ 80,000 for cash and sells it for ₹ 85,000 on cash basis. It also purchases a weighing machine for ₹ 15,000 to facilitate its operations. Its balance sheet changes as under:

BALANCE SHEET AS AT THE END OF 3/04/2022

LIABILITES		ASSETS	
Capital	₹ 1,00,000	Cash	₹ 95,000
P& L account	₹ 10,000	Fixed assets	₹ 15,000

We can see that there is a cash outflow of Rs. 10,000 during the day, despite trading activity earning a profit of Rs. 5,000 and cash inflow of Rs. 5,000. This is because there was a cash outflow of Rs. 15,000 for purchasing fixed assets. So, the net result was an outflow of Rs. 10,000. This falls among the items which we group under "Investing activity" in Accounting parlance.



On 4/04/2022, the firm buys wheat for ₹ 75,000 for cash and sells it for ₹ 80,000 on cash basis. On the same day the proprietor withdraws capital of ₹ 10,000. Its balance sheet changes as under:

BALANCE SHEET AS AT THE END OF 4/04/2022

LIABILITIES		ASSETS	
Capital	₹ 90,000	Cash	₹ 90,000
P& L account	₹ 15,000	Fixed assets	₹ 15,000

- We can see that there is a cash outflow of Rs. 5,000 during the day, despite trading activity earning a profit of Rs. 5,000 and cash inflow of Rs. 5,000.
- This is because there was a cash outflow of Rs. 10,000 by way of reduction in capital. So, the net result was an outflow of Rs. 5,000
- This falls among the items which we group under “**Financing activity**” in Accounting parlance.
- Such an activity will also affect the net cash flow of the firm

The activities of a business entity are grouped under 3 categories

- **Operating activities:** These are the principal revenue-producing activities of the entity and other activities that are not investing or financing activities. Operating activities consist of inflows and outflows of cash resulting from transactions that affect a firm's net profit or loss.
- **Investing activities:** These include acquisition and disposal of long-term assets and other investments not included in cash equivalents. (Cash equivalents are short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.)
- **Financing activities:** These include activities that result in changes in the size and composition of the contributed equity and borrowings of the entity.

Cash Flow from Investing Activities

- If an enterprise keeps on having positive cash flows from its operating activities for a very long time, its cash balance will become very high. We have to remember that while cash is a very desirable asset for liquidity, it is also the most unproductive asset and no enterprise would like to have huge cash balances.
- Investment of cash in fixed assets or financial assets is a way to deploy this cash. Cash outflows due to investing activities represent the extent to which expenditures have been made for resources intended to generate future income and cash flows. Cash inflows from investing activities means that there is a net decrease in such assets.

Examples of cash flows arising from investing activities are:



- Cash payments to acquire property, plant and equipment, intangibles and other long-term assets. These payments include those relating to capitalised development costs and self-constructed property, plant and equipment;
- Cash receipts from sales of property, plant and equipment, intangibles and other long-term assets;
- Cash payments to acquire equity or debt instruments of other entities and interests in joint ventures (other than payments for those instruments considered to be cash equivalents or those held for dealing or trading purposes);
- Cash receipts from sales of equity or debt instruments of other entities and interests in joint ventures (other than receipts for those instruments considered to be cash equivalents and those held for dealing or trading purposes);
- Cash advances and loans made to other parties (other than advances and loans made by a financial institution);
- Cash receipts from the repayment of advances and loans made to other parties (other than advances and loans of a financial institution);
- Cash payments for futures contracts, forward contracts, option contracts and swap contracts except when the contracts are held for dealing or trading purposes, or the payments are classified as financing activities; and
- Cash receipts from futures contracts, forward contracts, option contracts and swap contracts except when the contracts are held for dealing or trading purposes, or the receipts are classified as financing activities.

Cash Flow from Financing Activities

Financing activities can be useful in utilising the cash generated through operating of investing activities. These can also be utilises for increasing cash inflows in times of need. **Examples of cash flows arising from financing activities are:**

- Cash proceeds from issuing shares or other equity instruments;
- Cash payments to owners to acquire or redeem the entity's shares;
- Cash proceeds from issuing debentures, loans, notes, bonds, mortgages and other short-term or long-term borrowings;
- Cash repayments of amounts borrowed; and
- Cash payments by a lessee for the reduction of the outstanding liability relating to a finance lease.

Legal Requirement Of Preparation Of Cash Flow Statement

Those business entities which are required to follow the Accounting Standards, have to prepare the cash flow statement also as it forms part of the set of financial statements. AS-3 and Ind AS-7 provide detailed guidelines for preparing this statement. Cash flows are shown separately for each of the three categories of activities. As per the Ind AS- 7, which sets out requirements for the presentation and disclosure of cash flow information, an entity shall report cash flows from operating activities using either:



- The direct method, whereby major classes of gross cash receipts and gross cash payments are disclosed; or
- The indirect method, whereby profit or loss is adjusted for the effects of transactions of a non-cash nature, any deferrals or accruals of past or future operating cash receipts or payments, and items of income or expense associated with investing or financing cash flows.

Other Important Points Mentioned in Ind AS-7

Some of the other important points mentioned in Ind AS-7 are as under:

- Cash flows exclude movements between items that constitute cash or cash equivalents because these components are part of the cash management of an entity rather than part of its operating, investing and financing activities. Cash management includes the investment of excess cash in cash equivalents.
- A single transaction may include cash flows that are classified differently. For example, when the cash repayment of a loan includes both interest and capital, the interest element may be classified as an operating activity and the loan element is classified as a financing activity.
- The amount of cash flows arising from operating activities is a key indicator of the extent to which the operations of the entity have generated sufficient cash flows to repay loans, maintain the operating capability of the entity, pay dividends and make new investments without recourse to external sources of financing. Information about the specific components of historical operating cash flows is useful, in conjunction with other information, in forecasting future operating cash flows.
- The separate disclosure of cash flows arising from investing activities is important because the cash flows represent the extent to which expenditures have been made for resources intended to generate future income and cash flows. Only expenditures that result in a recognised asset in the statement of financial position are eligible for classification as investing activities.
- The separate disclosure of cash flows arising from financing activities is important because it is useful in predicting claims on future cash flows by providers of capital to the entity.
- Cash flows arising from transactions in a foreign currency shall be recorded in an entity's functional currency by applying to the foreign currency amount the exchange rate between the functional currency and the foreign currency at the date of the cash flow. The cash flows of a foreign subsidiary shall be translated at the exchange rates between the functional currency and the foreign currency at the dates of the cash flows. Cash flows denominated in a foreign currency are reported in a manner consistent with Ind AS 21.
- Cash flows from interest and dividends received and paid shall each be disclosed separately. These cash flows shall be classified in a consistent manner from period to period as either operating, investing or financing activities. The total amount of interest paid during a period is disclosed in the



statement of cash flows whether it has been recognised as an expense in profit or loss or capitalised in accordance with Ind AS 23, Borrowing Costs.

- Cash flows arising from taxes on income shall be separately disclosed and shall be classified as cash flows from operating activities unless they can be specifically identified with financing and investing activities.
- The aggregate cash flows arising from obtaining or losing control of subsidiaries or other businesses shall be presented separately and classified as investing activities.
- Investing and financing transactions that do not require the use of cash or cash equivalents shall be excluded from a statement of cash flows. Such transactions shall be disclosed elsewhere in the financial statements in a way that provides all the relevant information about these investing and financing activities.
- An entity shall disclose the components of cash and cash equivalents and shall present a reconciliation of the amounts in its statement of cash flows with the equivalent items reported in the balance sheet.

Format For Preparation Of Cash Flow Statement

- For preparing this statement, items available in the Balance Sheet and the Profit and Loss Account can be used.
- There is no prescribed format for preparation of cash flow statement. It may be different for different entities depending upon the peculiar nature of the activities.

An indicative format of the Statement of cash flows is as under:

1. Cash flows from Operating Activities

- (a) Operating income (EBIT)
- (b) Add: Depreciation
- (c) Subtract/add: profit/loss on sale of long term assets
- (d) Add decrease in accounts receivables
- (e) Subtract Decrease in accounts payable
- (f) Add/subtract decrease/increase in other items of current assets
- (g) Add/subtract increase/decrease in other items of current liabilities

Net cash flow from operating activities (A)

2. Cash flows from Investing Activities

- (h) Sale of Long term assets
- (i) Subtract Purchase of Long term assets

Net cash flow from operating activities (B)



3. Cash flows from Financing Activities

(j) Payment of dividend (-)

(k) Increase in equity (+)

(l) Decrease in borrowings (-)

Benefits Of Cash Flow Information

- Useful in understanding clearly the sources of an enterprise's cash inflows and how this cash is being utilised.
- A statement of cash flows, when used in conjunction with the rest of the financial statements, provides information that enables users to evaluate the changes in net assets of an entity.
- its financial structure (including its liquidity and solvency) and its ability to affect the amounts and timing of cash flows in order to adapt to changing circumstances and opportunities.
- Useful in assessing the ability of the entity to generate cash and cash equivalents and enables users to develop models to assess its future prospects.
- Suppliers can use it to assess the liquidity position of an enterprise which is important to fund its operating expenses and pay its debts.
- Bankers and other creditors can use it to decide the repayment schedules of their loans and advances and also stipulate covenants putting restrictions on certain expenses and investments.

Funds Flow Statements

- Each item in the balance sheet represents either source of funds or use of funds.
- Source of funds: All items on the liabilities side
- Use of funds: all items on the assets side (except cash)
- Cash in the balance sheet represents the unutilized portion of funds, available to the enterprise.
- If cash is also perceived as a use of funds, then all the uses of funds are equal to all the sources of funds.
- This perception of available cash, as a use of funds, is what causes the

Difference between Cash Flow Statement and Funds Flow Statement



Cash Flow Statement	Funds Flow Statement
1. Integral part of financial statements and is mandatory	1. Not a mandatory requirement and not a part of financial statements
2. Cash flows from operating, financing and investing activities to be shown separately	2. No such segregation is required.
3. Determines the cash position at the end of the accounting period	3. Determines the changes in working capital through a specified period.
4. Uses the cash system of accounting	4. Uses the accrual system of accounting
5. Helps in understanding the liquidity position of a business	5. Helps in assessing the long term financial strategy of a business

Preparation Of Funds Flow Statements

For the purpose of preparing the funds flow statement, the information contained in the two subsequent balance sheets is organized into two principal groups;

- Sources of funds and
- Applications of the funds.

As mentioned in the previous paragraph, sources of funds are indicated by decrease in assets and increase in liabilities (including shareholder's equity) over the previous year while applications of funds are associated with the increase in assets and decrease in liabilities (including shareholder's equity) over the previous year. A funds flow statement can be prepared in various ways depending upon the end use and purpose. Bankers, normally, further classify both sources and uses of funds into Long term and Short term. This enables them to know if long term funds have been diverted for short term uses.

So, an indicative format of funds flow statement, for the bankers, may be as under:

SOURCES OF FUNDS	USES OF FUNDS
1. LONG TERM SOURCES: a. Increase in equity b. Increase in Reserves c. Increase in long term borrowings d. Decrease in Non-current assets Sub-total	1. LONG TERM USES: a. Decrease in equity b. Decrease in Reserves c. Decrease in long term borrowings d. Increase in Non-current assets Sub-total
2. SHORT TERM SOURCES: a. Increase in Short term borrowings b. Decrease in current assets Sub-total	2. SHORT TERM USES: a. Decrease in Short term borrowings b. Increase in current assets Sub-total
TOTAL	TOTAL

While preparing the funds flow statement, we have to take special care of the following two aspects:



- **Changes in fixed assets:** While comparing the figures of two successive balance sheets, we have to take into account the depreciation charge during the year. We should also know if any assets have been sold during the year. For example: Assume that the figures of fixed assets shown in the balance sheets of 31/3/21 and 31/3/22 are same at ` 5,00,000. This may give the impression that there has been no long term source and use of funds on this account, during the year. But this is not correct. If the depreciation charged during the year is ` 60,000, it means that additional fixed assets of the same amount have been purchased during the year. So, in both sources and uses of funds, an amount of ` 60,000 is to be shown. Similarly, the amount received from sale of fixed assets is to be shown as a source.
- **Change in Net worth:** While comparing the figures of two successive balance sheets, we have to take into account the outgo on account of dividend or withdrawal of capital. For example: If the company has reduced its equity capital through buy back of shares, it may not be reflected correctly as the profit has been added to the reserves. Also, withdrawal of profits through dividend is to be shown as a use of funds while the entire net profit should be shown as a source of funds.

JAIIB AFM Module B Unit 6 - Final Accounts of Banking Companies

Introduction

- A banking company is generally governed by the provisions of the Companies Act, 2013 and specifically by the Banking Regulation Act.
- The Banking Regulation Act of 1949 came into force on 16th March, 1949 as a result of the long-felt need to regulate the banking business in India and protect the interests of number of depositors

The major institutions carrying on banking business, in India, include:

- Nationalised banks
- State Bank of India
- Foreign banks having branches in India
- Co-operative banks
- Regional Rural banks
- Private sector banks
- Small Finance Banks (h)
- Payments Banks

Definition and Functions of a Bank

- Section 5 of the Banking Regulation Act and means: accepting of deposits of money from the public, for the purpose of lending or investment and the



deposits are repayable on demand or otherwise by cheque, draft, order or otherwise.

Requirements Of Banking Companies As To Accounts And Audit

Preparation of Financial Statements and Accounting Date (Section 29)

- A Company registered under the Companies Act, 2013 is required to present its financial statements, i.e. balance sheet and profit and loss account in the formats laid down in the Schedule III annexed to the Companies Act. Similarly, banking company, (since it is a company) is also required to prepare and submit its accounts in a specified format.

Signatures

- Section 29 of the Act requires that the financial statements of banking companies incorporated in India should be signed by the manager or principal officer of the banking company and by at least three directors (or all the directors in case the number is less than three).
- The financial statements of a foreign banking company are to be signed by the manager or agent of the principal office in India. The provisions of section 29 are also applicable to nationalised banks, State Bank of India, regional rural banks, private sector banks, small finance banks and payments banks.

Audit (Section 30)

- Accounts must be audited by a person, duly qualified under any law, for the time being in force, to be an auditor of companies. However, every banking company is, before appointing, reappointing or removing any auditor, required to obtain the prior approval of the Reserve Bank of India.

Submission of Accounts (Secs 31 and 32)

- **Three copies of the balance sheet and profit and loss account prepared under Section 29 together with auditors' report under Section 30** must be submitted to the Reserve Bank of India within three months from the end of the period to which they refer. However, it can be extended up to a further period of three months by RBI (Section 31).
- Section 32 of the Act requires a banking company (but not other types of banks) to furnish three copies of its annual accounts and auditor's report thereon to the Registrar of Companies at the same time when it furnishes these documents to the RBI.

Publication of Accounts

- Rule 15 of the Banking Regulating (Companies) Rules, 1949 prescribes that accounts and auditors' report shall be published in a newspaper circulating in a place where a banking company has its principal office, **within six months from the end of the period to which they relate.**



Significant Features Of Accounting Systems Of Banks

- System of recording, classifying and summarising the transactions in a bank is in substance no different from that followed in other entities having similar volume of operations.
- However, in the case of banks, the need for the ledger accounts, especially those of customers, being accurate and up-to-date is much stronger than in most other types of enterprises.
- In the case of banks, relatively lesser emphasis is placed on books of prime entry such as cash books or journals.
- This is unlike most other types of enterprises where books of prime entry are generally kept up-to-date while ledgers, including the general ledger and subsidiary ledgers for debtors, creditors, etc. are written up afterwards.
- Banks follow the accounting procedure of '**voucher posting**'.

Bankers' Books

- **According to Section 2 (3)** of the Bankers' Books Evidence Act, '**Bankers' Books**' include ledgers, day book, cash books, account books and all other books used in the ordinary business of a bank.
- Generally, the following books are maintained by a bank to keep up-to-date records of its customers.

Cash Book

- All cash receipts and payments are recorded in the receiving cashier's cash book and paying cashier's cash book respectively.
- After this, on the basis of pay-in slips received by the receiving cashier and cheques and withdrawals slips by the paying cashier, these transactions are entered first in the accounts of customers and after that Day Books are written. This is called the 'Slip System' of posting.

Ledger Book

General Ledger contains the total accounts of each ledger. Besides the GL, the following ledger books are maintained:

- Current Accounts Ledger
- FD Accounts Ledger
- RD Accounts Ledger
- Loan Ledger
- Investment Ledger
- Bills discounted and purchased Ledger

Other Books

- Clearing Register



- Securities Register
- Draft Register
- Bills for collection Register
- Safe deposit vault Register
- Dishonoured cheques Register
- Letter of credit Register

Principal Books of Account

The principal books of account, subsidiary books and statistical records generally maintained by banks are described in the following paragraphs.

General Ledger

- Contains the control accounts of all personal ledgers, the profit and loss account and different assets and liabilities accounts.
- There are certain additional accounts also (known as contra accounts) which are kept with a view to keeping control over transactions which have no direct effect on the assets and liabilities of the bank and represent the agency business handled by the bank on which it earns service charges, e.g. letters of credit opened, bills received or sent for collection, guarantees given, etc.

Profit and Loss Ledger

- Some banks maintain a profit and loss account in the general ledger and maintain separate books for each revenue or expense head/sub-head.
- Some banks maintain columnar books having separate columns for each revenue and expense head/sub-head, while others maintain separate books for revenue and expense heads/sub-heads.
- These books are prepared from vouchers.
- The totals of debits and credits each day are posted to the profit and loss account in the general ledger from voucher summary sheets.
- In some banks, the revenue accounts too are maintained in the general ledger itself,
- while in others, broad revenue heads are kept in the general ledger and their details are kept in subsidiary ledgers
- For example, there are separate accounts for basic salary, dearness allowance and various other allowances, which are grouped together in the published accounts.
- Similarly, various accounts comprising general charges, interest paid, interest received, etc. are maintained separately in the profit and loss ledgers.

Subsidiary Books

Personal Ledgers



Each control account in the general ledger is supported by a subsidiary ledger (or more than one subsidiary ledger if the number of accounts is large).

Thus, in respect of control accounts relating to accounts of customers, subsidiary ledgers are maintained for:

- Various types of deposit accounts (savings bank, current account, recurring deposits, etc.) which contain accounts of individual customers. Each account holder is allotted a separate folio in the ledger;
- Various types of loan and related accounts (cash credit, term loans, demand loans, bills purchased and discounted, letters of credit, bank guarantees issued etc.) wherein the liability of each customer is reflected. Generally, there is no separate ledger for overdraft accounts which are granted in a current account.
- Banks generally do not allot separate folios to each customer. The register is divided into various sections, each section for a particular period of deposit and/or the rate of interest payable on deposits.
- The voucher summary sheets are prepared in the department which originates the transactions, by persons other than those who write the ledgers.
- They are subsequently checked with the vouchers by persons generally unconnected with the writing of ledgers/registers or the voucher summary sheets.

Bills Registers

- Details of different types of bills are kept in separate registers which have suitable columns.
- For example, bills purchased, inward bills for collection, outward bills for collection etc. are entered serially on a daily basis in separate registers.
- In the case of bills purchased or discounted, party-wise details are also kept in a normal ledger form. This is done to ensure that the sanctioned limits of parties are not exceeded.
- Entries in these registers are made by reference to the original documents.
- A voucher for the total amount of the transactions of each day is prepared in respect of each register. This voucher is entered in the day book.
- When a bill is realised or returned, its original entry in the register is marked off.
- A daily summary of such realisations or returns is prepared in separate registers whose totals are taken to vouchers which are posted in the day book.
- In respect of bills for collection, contra vouchers reflecting both sides of the transaction are prepared at the time of the original entry, and this entry is reversed on realisation.
- Outstanding entries are summarised at stipulated intervals and their totals agreed with the balances of the respective control accounts in the general ledger.



Other Registers/Records

There are different registers/records to record detailed particulars of various types of transactions.

These registers/records do not form part of the books of account but support the entries/balances in the various accounts. Some of the important registers/records relate to the following:

- a) Drafts issued (separate registers may be maintained for drafts issued by the branch on other branches of the same bank and those on the branches of its correspondents in India or abroad)
- b) Drafts paid
- c) Issue and payment of:
 - Remittances
 - Bankers cheques/Pay orders/Traveller's cheques/Gift cheques
 - Letters of credit
 - Letters of guarantee

Preparation And Presentation of Financial Statements Of Banks

A banking company is required to prepare financial statements in accordance with Schedule III of the Companies Act, 2013.

Banking Regulation Act has prescribed Form A, the format of a balance sheet and form B, the format of a profit and loss account.

Preparation of Balance Sheet

Third Schedule: Form 'A' Form of Balance Sheet Balance Sheet as on 31st March,...



Capital and Liabilities.	Schedule No.	₹
Capital	1	....
Reserves and Surplus	2	....
Minorities Interest	2A	
Deposits	3	....
Borrowings	4	....
Other Liabilities and Provisions	5	....
Total		

Assets	Schedule No.	₹
Cash and Balance with RBI	6	....
Balances with Banks and Money at Call and Short Notice	7	....
Investments	8	....
Advances	9	....
Fixed Assets	10	....
Other Assets	11	....
Goodwill on consolidation ¹		
Debit balance of Profit and Loss account		
Total		....
Contingent Liabilities	12	....
Bills for collection		

Schedule 1: Capital

i) For Nationalised banks: Capital

ii) For banks Incorporated outside India:

- Capital (the amount brought in by banks by way of start-up capital as prescribed by RBI should be shown under this head)
- Amount of deposit kept with RBI under Section 11(2) of the Banking Regulation Act, 1949

Total

III. For other banks:

Authorised capital	(.... shares of Rs.... each)....
Issued capital	(.... shares of Rs.... each)....
Subscribed capital	(.... shares of Rs.... each)....
Called-up capital	(.... shares of Rs.... each)....
Less: Calls unpaid	....
Add: Forfeited shares	....

**Schedule 2: Reserves and Surplus****Rs.****i) Statutory reserves**

Opening balance

....

Additions during the year

....

Deductions during the year

....

....

ii) Capital reserves

Opening balance

....

Additions during the year

....

Deductions during the year

....

....

(III) Share premium

Opening balance

....

Addition during the year

....

Deduction during the year

....

(IV) Foreign Currency Translation reserve

Opening balance

....

Additions during the year

....

Deductions during the year

....

....

(V) Investment reserve

Opening balance

....

Additions during the year

....

Deductions during the year

....

...

(VI) Special Reserve Under Income Tax Act

Opening balance

....

Additions during the year

....

Deductions during the year

....

....

(VII) Revenue and other reserves

Opening balance

....

Additions during the year

....

Deductions during the year

....

....

(VIII) Capital Reserve on consolidation



Opening Balance	....
Additions during the year	....
Deductions during the year	....
(IX) Balance in profit and loss account	....

Total (I + II + III + IV + V+VI+VII+VIII+IX)

- Opening balances, additions and deductions since the last consolidated balance sheet shall be shown under each of the specified heads.
- Where there is more than one subsidiary aggregation results in goodwill in some cases and Capital Reserves in other cases, net effect to be shown in Schedule 2 or Assets side after giving separate notes.

Schedule 2A: Minorities Interest

Rs.

Minority interest at the date on which the parent subsidiary relationship came into existence	....
Subsequent increase/ decrease	....
Minority interest on the date of balance sheet	....

Schedule 3: Deposits

Rs.

(a)(I) Demand deposits

- From banks
- From others

(II) Savings bank deposits:

(III) Term deposits

- From banks
- From others

Total (I, II and III)

B. (i) Deposits of branches in India

(ii) Deposits of branches outside India

- Includes deposits of Indian branches of subsidiaries
- Includes deposits of foreign branches of subsidiaries

Schedule 4: Borrowings

Rs.

Borrowings in India

- Reserve Bank of India
- Other banks
- Other institutions and agencies

**(II) Borrowings outside India**

....

- Total (I and II)
- Secured borrowings in I and II above:

Schedule 5: Other Liabilities and Provisions**Rs.**

- Bills payable
- Inter-office adjustments (net)
- Interest accrued
- Deferred Tax Liabilities
- Others (including provisions):
- Total:-----

Schedule 6: Cash and Balances with RBI**Rs.****Cash in hand (including foreign currency notes)**

Balances with RBI in:

- Current account
- Other accounts
- Total (I and II)

Schedule 7: Balance with Banks and**Rs****Money at Call and Short Notice****In India****Balance with banks:**

- In Current accounts
- In other deposit accounts

(ii) Money at call and short notice:

- With banks

(b) With other institutions

....

....

- Total (I and II)

(II) Outside India

- In current accounts
- In other deposit accounts
- Money at call and short notice
- Total (i, ii and iii)

Grand Total (I and II)....

Schedule 8: Investments**Rs.****(i) Investments in India in**



▪ Govt. securities	....	
▪ Other approved securities	....	
▪ Shares		....
▪ Debentures and bonds	....	
▪ Subsidiaries and/or joint ventures	....	
▪ Others (to be specified)	....	

Total:

....

(ii) Investment outside India in

▪ Govt. Securities (incl. local authorities)	....
▪ Subsidiaries and/or joint ventures abroad....	
▪ Other investment (to be specified)	....

Total

Grand Total (I and II)

(iii) Investment in India

▪ Gross value of Investments	....	
▪ Aggregate of Provisions for Depreciation	....	
▪ Net Investment	....	....

(IV) Investments outside India

▪ Gross value of investments	....	
▪ Aggregate of Provisions for Depreciation		
▪ Other investments (to be specified)	....	....

Schedule 9: Advances

Rs.

A)(i) Bills purchased and discounted

....

(ii) Cash credits, overdrafts and loans repayable on demand....

(iii) Term loans

Total:

B. (i) Secured by tangible assets

(ii) Covered by bank/Govt. guarantees

(iii) Unsecured

Total:

C. (I) Advances in India:

▪ Priority sectors	....	
▪ Public sector		....
▪ Banks		....



- Others

Total:-----

(II) Advances outside India:

Due from banks	....		
Due from others:	....		
▪ Bills purchased and discounted	....		
▪ Syndicated loans	....		
▪ Others		....	....

Total....

Grand Total (C.I and C.II)....

Schedule 10: Fixed Assets

Rs.

(i) Premises

At cost as on 31st March of the preceding year			
Additions during the year	....		
Deductions during the year	....		
Depreciation to date		....	....

(IA) Premises under construction

(II) Other fixed assets (incl. furniture and fixture)

At cost on 31st March of the preceding year	....		
Additions during the year	....		
Deductions during the year	....		
Depreciation to Date		....	...

(IIA) Leased Assets

At cost as on 31st March of the preceding year	....		
Additions during the year including adjustments	....		
Deductions during the year including provisions	....		
Depreciation to date		....	....
Total (I and II)			....

(IIIA) Capital-Work-in progress (Leased Assets)

net of Provisions			....
Total (I, IA, II, IIA & III)		....	

**Schedule 11: Other Assets****Rs.**

(I) Inter-office adjustments (net)	....	
(II) Interest accrued		....
(III) Tax paid in advance/tax deducted at source	....	
(IV) Stationery and stamps	....	
(V) Non-banking assets acquired in satisfaction of claims	....	
VI) Deferred Tax Assets	....	
(VII) Others*		....

Total:

* In case there is any unadjusted balance of loss (i.e. when the loss exceeds the aggregate of capital, reserves and surplus), the same may be shown under this item under appropriate footnote.

Schedule 12: Contingent Liabilities**Rs.**

(I) Claims against the bank not acknowledged as debts	....	
(II) Liability for partly paid investments	....	
(III) Liability on account of outstanding forward exchange contracts	....	
(IV) Guarantees given on behalf of constituents:		
▪ In India	....	
▪ Outside India	....	....
(V) Acceptances, endorsements and other obligations	....	
(VI) Other items for which the bank is contingently liable	....	

Total:

.....

Accounting Treatment Of Specific Items

Accounting treatment of some specific items in the profit and loss account and balance sheet are being explained

Bad Debts and Provisions for Doubtful Debts

- Charged under the heading 'Provision and Contingencies' in the Profit and Loss account.



- In the Balance Sheet, the advances are shown after deducting both bad debts and provision for bad debts.
- The Schedule of Advances to be filled in by the branches contains a separate column regarding doubtful debts in respect of 'bills purchased and discounted', cash-credits and overdrafts, and unsecured loans.
- However, while consolidating the Schedule of Advances at the head office level, for balance sheet purposes, the advances are shown net of any bad or doubtful debts.

Provision for Taxation

- Charged to the Profit and Loss Account under the heading 'Provisions and Contingencies', in the Balance Sheet, it will be shown under the heading 'Other Liabilities and Provisions', on the Liabilities side.

Rebate on Bills Discounted

- This refers to unexpired discount. A banking company charges discount in advance for the full period of the bill of exchange or promissory note discounted with it.

The accounting entry made is as follows:

- Bills discounted and purchased a/c Dr.
- To Customers' a/c
- To Discount a/c Customer's account is credited with the net amount remaining after deducting the amount of discount.
- The amount credited to the discount account represents the earning of the bank.
- However, it may be possible that the bills discounted may mature after the close of the financial year. It will not be appropriate to take to the credit of the Profit and Loss account, that part of the discount charged, which relates to next year. An accounting entry is, therefore, passed for unearned discount in the following manner:

Discount a/c Dr. To Rebate on Bills Discounted a/c (with the amount of unearned discount relating to the next period)

- Rebate on bills discounted, if already appearing in the trial balance, is taken to the balance sheet on the 'liabilities side'.
- However, if an adjustment has to be done after the preparation of the trial balance, in respect of rebate on bills discounted, the amount of such rebate (i.e. the unearned discount) will be deducted from the total discount in the profit and loss account and will also appear as a liability in the balance sheet.

Preparation Of Profit and Loss Account

- Form 'B' Third Schedule



- Form of Profit and Loss Account
- Profit and Loss Account for the Year Ended 31st March, 20.....

	Schedule Number	Year Ended (₹)
I. Income:		
Interest Earned	13	.....
Other Income	14	.....
II. Expenditure:		
Interest Expended	15	.....
Operating Expenses	16	.....
Provisions and Contingencies	---	.....
Total		.....
III. Profit/Loss:		
Net Profit/(Loss) of the Year		.....
Profit/(Loss) brought forward		.....
Share of earnings/loss in Associates		.....
Consolidated Net profit/(loss) for the year before deducting Minorities' Interest	17	.....
Less: Minorities' Interest		.....
Consolidated profit/(loss) for the year attributable to the group		.....
Add: Brought forward consolidated profit/(loss) attributable to the group		.....
Total		.....
IV. Appropriations:		
Transfer to Statutory Reserves		.....
Transfer to other Reserves		.....
Transfer to Government/Proposed Dividend		.....
Balance Carried over to Balance Sheet		.....
Total		.....
Earnings per Share ¹		.....
Basic earnings per equity share		.....
Diluted earnings per equity share		.....

Schedule 13: Interest Earned

Rs.

- | | |
|--|-------|
| ▪ Interest/Discount on Advances/Bills | ..... |
| ▪ Income on Investments | ..... |
| ▪ Interest on balances with RBI and other Inter-bank funds | ..... |
| ▪ Others | ..... |
| ▪ Total | ..... |

Schedule 14: Other Incomes

Rs.



(i) Commission, Exchange and Brokerage	.....	
(ii) Profit on Sale of Investments	.....	
Less: Loss on Sale of Investments	.....	
(III) Profit on Revaluation of Investments	.....	
Less: Loss on Revaluation of Investments	.....	
(IV) Profit on Sale of Land/Building and other Assets	.....	
Less: Loss on Sale of Land, Building and other Assets	.....	
(V) Profit on Exchange transactions	.....	
Less: Loss on Exchange transactions	.....	
<i>(VI) Income earned by way of dividends, etc., from subsidiaries Companies and/or joint ventures abroad/in India</i>	.....	
<i>(VII) (a) Lease finance income</i>	.....	
(b) Lease management fee	.....	
(c) Overdue charges	.....	
(d) Interest on lease rent receivables	.....	
(VIII) Misc. Income	.....	
Total	.....	.....

Note: Under Items II to V loss figures be shown in brackets.

Schedule 15: Interest Expended

Rs.

▪ Interest on Deposits	.....
▪ Interest on RBI/Inter-Bank Borrowings	.....
▪ Others	.....
Total	.....

Schedule 16: Operating Expenses

Rs.

▪ Payments to and Provisions for Employees	.....
▪ Rent, Taxes and Lighting	.....
▪ Printing and Stationery	.....
▪ Advertisement and Publicity	.....

(a) Depreciation on Bank's Property other than leased assets

(b) Depreciation on leased assets

▪ Depreciation on Bank's Property	.....
▪ Directors' Fees, Allowances and Expenses	.....



▪ Auditors' Fees and Expenses (Including Branch Auditors)	.....
▪ Law Charges	.....
▪ Postages, Telegrams, Telephones, etc.	.....
▪ Repairs and Maintenance	.....
▪ Insurance	.....
▪ Amortisation of Goodwill, if any	.....
▪ Other Expenditure	.....
Total	.....

Disclosure Requirements Of Banks To Be Added As Notes To Accounts

- In order to encourage market discipline, Reserve Bank has over the years developed a set of disclosure requirements which allow the market participants to assess key pieces of information on capital adequacy, risk exposures, risk assessment processes and key business parameters which provide a consistent and understandable disclosure framework that enhances comparability.
- Banks are also required to comply with the Accounting Standard 1 (AS 1) on Disclosure of Accounting Policies issued by the Institute of Chartered Accountants of India (ICAI).
- In addition to the 16 detailed prescribed schedules to the balance sheet, banks are required to furnish the information in the "Notes to Accounts", a gist of which is given below.

Summary of Significant Accounting Policies'

- Summary of Significant Accounting Policies' and 'Notes to Accounts' are to be shown under Schedule 17 and Schedule 18 respectively, to maintain uniformity.
- The details are given in RBI Master Circular of July 1, 2015 on "Disclosure in Financial Statements –Notes to Accounts" Summary of Significant Accounting Policies Banks should disclose the accounting policies regarding key areas of operations at one place (under Schedule 17)

Gist of information to be disclosed in 'Notes to Accounts' (Schedule 18)

- Capital
- Investments
- Derivatives
- Asset Quality
- Business Ratios
- Asset Liability Management
- Exposures (To real estate sector, capital market, country exposure, single/group borrower limit exceeded by bank, unsecured advances)



- Disclosure of penalties imposed by RBI
- Disclosure Requirements as per Accounting Standards where RBI has issued guidelines in respect of disclosure items for Notes to Accounts
- Provisions and Contingencies
- Floating Provisions
- Draw Down from Reserves
- Disclosure of complaints
- Disclosure of Letters of Comfort (LoCs) issued by banks
- Provisioning Coverage Ratio (PCR)
- Bancassurance Business
- Concentration of Deposits, Advances, Exposures and NPAs
- Sector-wise NPAs
- Movement of NPAs
- Overseas Assets, NPAs and Revenue
- Off-balance Sheet SPVs sponsored
- Unamortised Pension and Gratuity Liabilities
- Disclosures on Remuneration
- Disclosures relating to Securitisation
- Credit Default Swaps
- Transfers to Depositor Education and Awareness Fund (DEAF)
- Unhedged Foreign Currency Exposure

Illustration 1 From the following particulars, prepare the profit and loss account of ABC Bank Ltd., for the year ended 31st March, 2022.

Income/Expenses	₹	Income/Expenses	₹
Commission charged	7,000	Interest on overdrafts	60,000
Discount on bills discounted	1,65,000	Interest on savings bank accounts	72,000
Audit fees	5,000	Postage telegram	2,000
Establishment expenses	60,000	Printing and stationery	3,000
Interest on loan	2,80,000	Unexpired discount on bills discounted	55,000
Interest on fixed deposits	2,98,000	Rent and taxes	22,000
Interest on cash credits	2,40,000	Sundry expenses	2,000

Make a provision of Rs. 30,000 for doubtful debts

ABC Bank Ltd. Profit & Loss Account for the year ended 31st March, 2022



Dr.

Cr.

	Schedule No.	₹
I. Income		
Interest Earned	13	6,90,000
Other Income	14	7,000
Total		6,97,000
II. Expenditure		
Interest Expended	15	3,70,000
Operating Expenses	16	94,000
Provision for Contingencies		30,000
Total		4,94,000
III. Profit:		
Net profit for the year		2,03,000

Schedule 13: Interest Earned

▪ Discount on Bills discounted	1,65,000
▪ Interest on:	
Loans	2,80,000
Cash Credits	2,40,000
Overdrafts	60,000
	5,80,000

Less: Unexpired Discount on Bills Discounted 55,000

6,90,000

Schedule 14: Other Income

Commission Charged 7,000

Schedule 15: Interest Expended

Interest paid on:

Fixed Deposits	2,98,000
Savings Bank Accounts	72,000
	3,70,000

Schedule 16: Operating Expenses

▪ Establishment Expenses	60,000
▪ Audit Fees	5,000
▪ Rent and Taxes	22,000
▪ Postage and Telegrams	2,000



▪ Printing and Stationery	3,000
▪ Sundry Expenses	2,000
	94,000

Illustration 2 Prepare the Profit and Loss account of Modern Bank Ltd. for the year ended 31st March, 2022, from the following:

the following.

	₹
Interest on Fixed Deposits	1,62,410
Rebate on Bills discounted	29,000
Interest on Loans	45,000
Commission Charged to Customers	62,500
Establishment	15,000
Discount on Bills Discounted	89,000
Interest on Cash Credit	24,000
Amount Charged against Current Accounts	71,500
Directors' Fees	10,000
Audit Fees	20,000
Postage and Telegram	2,000
Printing and Stationery	4,000
Rent and Taxes	22,500
Interest on Overdrafts	71,000
Sundry Charges	1,500
Interest on Savings Bank Deposits	57,780

Schedule 13: Interest Earned

▪ Interest on:	
❑ Loan	45,000
❑ Cash Credit	24,000
❑ Overdrafts	71,000
	1,40,000

Discount on Bills discounted 89,000

Less: Rebate on Bill Discounted 29,000

60,000

Amount charged against current accounts 71,500

2,71,500

Schedule 14: Other Income



Commission charged to customers 62,500

Schedule 15: Interest Expended

- Interest paid on:
 - ❑ Fixed Deposits 1,62,410
 - ❑ Savings Bank Deposits 57,780
- 2,20,190

Schedule 16: Operating Expenses

- Establishment Expenses 15,000
 - Director's Fees 10,000
 - Audit Fees 20,000
 - Rent and Taxes 22,500
 - Postage and Telegrams 2,000
 - Printing and Stationery 4,000
 - Sundry Expenses 1,500
- 75,000

Modern Bank Ltd. Profit & Loss Account for the year ended 31st March, 2022

	Schedule No.	₹
I. Income: Interest		
Earned	13	2,71,500
Other Income	14	62,500
Total		3,34,000
II. Expenditure: Interest		
Expended	15	
Operating Expenses	16	2,20,190
Provision for Contingencies		75,000
Total		2,95,190
III. Profit:		38,810
Net Profit for the year		

Illustration 3

The following are details of advances of Punjab Bank Ltd.,

- Bills Purchased and Discounted 15,00,000
- Cash Credits, Overdrafts and Loans Repayable on Demand 20,00,000
- Term Loans 5,00,000
- The following are the other details of the above advances:
- Secured by Tangible Assets 30,00,000



- | | |
|---|----------|
| ▪ Covered by Bank, Government and ECGC Guarantees | 6,00,000 |
| ▪ Unsecured | 2,00,000 |
| ▪ Doubtful Debts | 2,00,000 |
| ▪ Show how these items will appear in the Bank's Final Accounts | |

Schedule 9: Advances**Rs,**

A)1. Bills Purchased and Discounted	15,00,000
2. Cash Credits, Overdrafts and Loans Repayable on Demand	18,00,000
3. Term loans	5,00,000
Total (1, 2 and 3)	38,00,000
B)1. Secured by Tangible Assets	30,00,000
2. Covered by Bank Guarantee and ECGC Guarantee	6,00,000
3. Unsecured	2,00,000
Total (1, 2 and 3)	38,00,000

Profit & Loss Account as on

I. Income	
II. Expenditure	
III. Provision and Contingencies	2,00,000

JAIIB AFB Module B Unit 7- Accounting in Computerized Environment

Computerised Accounting

An accounting system is one that performs the following functions:

- It captures business transactions in the form of accounting entries.
- The accounting entries are then used to prepare financial statements.
- The financial statements are prepared based on accounting standards.
- Various financial reports are prepared from the data available in the financial statements.

Features of Computerized Accounting

- Speed
- Accuracy



- Various informative reports can be generated
- Economy
- A Computerised system may be a single stand Alone unit or a Multiple User, ie, LAN, WAN etc.

Terms used in Computerized Accounting

- Data
- Record
- Data file or file
- System

Advantages of Computerized Accounting

- Accurate, High speed and low cost of operation
- Availability of various reports from the same accounting data
- Error-free accounting
- Automatic completion of all records by feeding only one entry into the computer
- Multiple set of Printouts available

Disadvantages of Computerized Accounting

- Requirement of special Programme and Professional
- Qualified staff required for Operations
- Costly computer peripherals and stationery
- Regular back-up is required as Data may be lost for various reasons
- Computer viruses

Functions performed by computerized accounting software available in the market

- Tally versions such as 4, 4.5, 5, 5.4, 6.3, 7.2 and 8.2
- Ex, accounting software
- Bank 2000 for accounting needs for banks
- B@NKS-24-core banking solution
- A.U.D.I.T.O.R and A.U.D.I.T.I.M.E cash basis software for professionals and their accounts



- MEFCOMP accounting software for professional
- Quick FA

Difference Between Computerised And Manual Accounting

Basis For Comparison	Manual Accounting	Computerized Accounting
Meaning	Manual Accounting is a system of accounting that uses physical registers and account books, for keeping financial records.	Computerized Accounting is an accounting system that uses an accounting software, for recording financial transactions electronically.
Recording	Recording is possible through book of original entry.	Data content is recorded in customized database.
Calculation	All the calculation is performed manually.	Only data input is required, the calculations are performed by computer system.
Speed	Slow	Comparatively faster.
Adjusting entries	It is made for rectification of errors.	It cannot be made for rectification of errors.
Backup	Not possible	Entries of transactions can be saved and backed up
Trial Balance	Prepared when necessary.	Instant trial balance is provided on daily basis.
Financial Statement	It is prepared at the end of the period, or quarter.	It is provided at the click of button.

Core Banking Components

Core Banking is delivered as a set of integrated core banking components that are then tailored to fit the institution's individual business requirements. These components can be easily re-configured as business requirement change, protecting the organisation's strategic investment and maintaining a unified business approach.

Core Bank components include

- Core Bank financial institution infrastructure
- Core Bank customer management and customer overview
- Core Bank Account Administration
- Core Bank Payments
- Core Bank Management Information

Advantages of Core Banking



- Makes the internal staff more competent.
- Minimises human intervention thereby limiting errors.
- Helps prevent frauds and thefts with real-time banking facilities.
- Reduces operational costs.
- Aids in studying changing customer demands.
- Facilitates decision making through reporting and analytics.

Information Security

Information Security is basically the practice of preventing unauthorized access, use, disclosure, disruption, modification, inspection, recording or destruction of information. Information can be physical or electrical one.

Information system Security

Information systems security provides essential information for managing the security of an organization where information technology is an important factor. It is mainly for all the staff, who are the first-line support, responsible for the daily, efficient operation of security policies, procedures, standards and practices. ***It cover***

- Logical Access Control
- Physical security
- Network Access Control
- Password management
- Asset Management
- E-mail security
- Internet security
- Mobile computing
- Network security
- Application security
- Operating system security
- Database administration and security
- Desktop security
- Malicious software
- Incident response and management
- Security of electronic delivery channels
- Wireless security
- Change Management
- Patch Management
- Remote access
- Backup and archival
- Capacity Management
- IT asset/media management
- Encryption



- Application/data migration
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JAIIB Paper 3 (AFM) Module C: Financial Management

No. of Unit	Module Name
Unit 1	Financial Management — An Overview
Unit 2	Ratio Analysis
Unit 3	Financial Mathematics — Calculation of Interest and Annuities
Unit 4	Financial Mathematics — Calculation of YTM
Unit 5	Financial Mathematics — Forex Arithmetic
Unit 6	Capital Structure and Cost of Capital
Unit 7	Capital Investment Decisions/Term Loans
Unit 8	Equipment Leasing ¹ Lease Financing
Unit 9	Working Capital Management
Unit 10	Derivatives

JAIIB Paper 3 (AFM) Module C Unit 1 - Financial Management – An Overview

Introduction

- When the business is started, the owners bring funds in the form of capital.
- It has to raise further funds in the form of further issue of capital and borrowings.



- The funds are needed for creating the fixed assets as well as for the working capital.
- How these funds are used most efficiently is also important.
- The financial activities of a business organisation mainly relate to its assets, liabilities and revenues.
- Planning, organizing, conducting and controlling all these financial activities of the organisation is the function of Financial Management.

Forms Of Business Organisation

- The form of a business organisation is the choice of the owners/promoters.
- A business organisation may have any of the following forms:



Sole Proprietary

- Owned and run by one person
- There is no legal distinction between the owner and the firm.
- The business owner is referred to as the sole proprietor.
- He/she exclusively owns all the assets and profits of the business.
- The profit of the firm is taxed as personal income of the proprietor.

Advantages:

- Subject to minimum regulations.
- Simplest form of a business organisation.

Limitation:

- Limited capital as the resources of the proprietor are limited

Partnership Firm



Partnership is the relation between persons who have agreed to share the profits of a business carried on by all or any of them acting for all.

- Governed by the Indian Partnership Act, 1932.
- As per Section 4 of the Indian Partnership Act

From this definition, the following points are clear:

- ✓ An association of two or more persons
- ✓ An agreement/contract between the persons
- ✓ The agreement is to carry on a business with the object of sharing profits
- ✓ The business is to be carried on by all or any of them acting for all.
- The persons involved in the agreement are called partners and the entity created for the business is called partnership firm.
- LIABILITY of each partner is unlimited unlike a Limited Liability Company (LLC).
- **Maximum member:** The Indian Partnership Act does not mention anything but as per the Companies Act 2013 and The Companies (Miscellaneous) Rules, 2014, a partnership can have a **maximum of 50 persons.**
- A company can also be a partner in a partnership firm.
- The partnership firm may be registered but it is not mandatory.
- A partnership has no separate legal status apart from its partners

Limited Liability Partnership (LLP)

- It is a newly established concept introduced in India by Limited Liability Partnership Act, 2008.
- A Limited Liability Partnership (LLP) is a partnership in which some or all partners have limited liabilities.
- It therefore has elements of partnerships as well as Limited Liability Companies.
- **Registration:** With Ministry of Corporate Affairs while registration of a partnership firm is done with Registrar of Firms.
- **Legal Entity:** An LLP is a legal entity unlike a partnership firm which has no separate legal status apart from its partners.
- In LLP, one partner is not liable for the acts of another partner.

Hindu Undivided Family (HUF)

- Exists only in India and is governed by the provisions of the Hindu Law.
- It is different from a partnership firm as it comes into existence not out of any contract but birth in a Hindu family.



- The firm is owned by the members of undivided Hindu family, **called co-parceners.**
- Typically managed by the senior-most male member, **also known as Karta or Manager.**
- For the sake of income tax, the HUF is considered as a separate entity and is taxed separately

Association of Persons or Body of Individuals

- Association of Persons (AOP) means a group of persons, whether incorporated or not, who come together for achieving a common objective.
- Members of the AOP can be natural or artificial persons.
- Body of Individuals (BOI) means a group of individuals (natural persons), whether incorporated or not, who join together for earning income.
- Both AOP and BOI are treated as separate entity for the purpose of assessment under the Income Tax Act.

Company

- A company is an association of persons who contribute money or money's worth to a common stock and use it for a common purpose.
- Created by law and effected by law.
- **A legal person just as much as an individual but with no physical existence.**
- **Section 2 (20) (Chapter I) of the Companies Act, 2013**, defines a company as - A company incorporated under this Act, or under any previous Company law.
- Companies Act 2013 also permits formation of **"One-Person Company"** which has only one person as its member.

Co-operative society

- This can also be one form of a business organisation.
- It is a form of business where individuals join hands for the promotion of their common goals.
- **Main objective:** Mutual assistance and service.
- A registered co-operative society is recognized as a separate legal entity by law.
- It acquires an identity quite distinct and independent of its members.
- It can purchase and dispose of its assets. It can sue, and also can be sued.
- The management of a co-operative society is vested in the management committee elected by the members of the society.

Financial Decisions In A Firm



Financial decisions in a firm mainly relate to the acquisition and utilization of capital funds in meeting the financial needs and overall objectives of the firm.

Therefore, the primary function of finance department is to acquire capital funds and put them to proper use, as per firm's objectives. Financial decisions in an organisation, **normally, relate to the following:**

- Estimating the capital requirements
- Deciding the capital structure/composition
- Deciding on sources of funds
- Use of long term funds
- Corporate strategy/mergers and acquisitions
- Use of short term funds/Working capital management
- Financial Control
- Compliance
- Decision of dividend/retained profit

Objectives Of Financial Management

The objectives of the financial management are to efficiently carry out all the functions mentioned above under scope of financial management. ***These objectives can be summarised as under:***

- To ensure adequate and timely supply of long and short term funds to the organisation, at reasonable cost.
- To ensure optimum utilization of funds
- To take sound capital investment decisions
- To decide on optimum capital structure
- To ensure statutory and regulatory compliance
- To ensure balance between shareholder benefits and organisational objectives
- To ensure appropriate financial risk-management system

Fundamental Principles Of Finance

While discussing the principles of finance, let us keep in mind that finance is not the same as money lending. Lending is just one constituent of finance. So, the principles of finance should not be confused with principles of lending.

The main principles of finance are as under:

- Time Value of Money
- Opportunity Cost of Money
- Risk and Return
- Liquidity and Return
- Diversification
- Reducing asset-liability mismatch/Hedging
- Cash flow

Building Blocks Of Modern Finance



Traditional approach: **Finance functions consist of financial planning, raising of funds, allocation of funds, and financial control.**

The modern approach considers that the corporate finance function is built up on the four basic blocks mentioned as under:

- Planning
- Decision making
- Organising and Directing
- Controlling

Risk-Return Trade Off

- The risk-return tradeoff means that the potential return rises when a higher risk is taken, and vice versa.
- Financial decisions of a firm are often guided by the risk-return trade off.
- Risk is inherent in every investment, though its scale varies.
- In order to increase the possibility of higher return, the firm needs to increase the risk taken and vice-versa
- Depending upon the risk-taking ability, investment objectives, and the time horizon available to achieve it, a firm has to find the optimal combination of risk and return in a financial decision.
- A proper balance between return and risk should be maintained to get optimum return from the investment.
- Such balance is called Risk-Return Trade off and every financial decision involves this trade off.

Required Rate of Return

- The firm has to decide on the rate of return it wants on its investment, below which it would not like to invest its money.
- ***The relationship between required rate of return and risk can be expressed as under:***

Required Rate of Return = Risk-free Return + Risk Premium

- Various tools are used in financial management for measuring the risk. One of these is the Standard Deviation.
- Higher the risk, the higher the risk premium is, which pushes up the required rate of return.
- While the investment in Government bonds is considered to be risk free as the interest rate is known and the risk of default is almost nil, investment in junk



bonds involves high risk because of high probability of default, though the yield is high due to low market rate

Business Ethics & Social Responsibility

- In general, ethics are concerned with classifying what is right and what is wrong.
- **Business ethics:** Focus on what is right for the shareholders and stakeholders.
- Drives the code of conduct of a company.
- Normally, each company has a well-documented code of conduct applicable to both the business and to its employees.
- Companies voluntarily adopt this code of conduct containing the principles of corporate ethics.
- These principles govern every aspect of the company's dealings with government, other businesses, its employees, its customers and any other stakeholder.
- Social responsibility is different From business ethics as it focuses on the impact of firm's business on the environment and community.

Importance of business ethics

- A company's perception in the eyes of stakeholders as well as the outsiders, is shaped by its business ethics.
- Helps in not only in raising resources for the expansion of the business but also makes it a preferred partner for doing business.
- **Helps to attract the best talent in the industry:** high productivity and low attrition rates.
- The customers of a business entity that treats them ethically, become repeat customers and build an ongoing relationship with the entity.
- These customers recommend that entity to the people within their contact.
- The brand value of an entity, known for its high ethical values, keeps growing and helps in increasing its market share

Principles of code of conduct/Ethics

The code of conduct, adopted by an organisation, is affected by both the nature of the company's business and its location. ***The broad principles of code of conduct or ethics, in business, can be mentioned as under:***

- Personal responsibility
- Corporate responsibility
- Corporate Transparency
- Honesty



- Integrity
- Promise-Keeping
- Trustworthiness
- Loyalty
- Fairness
- Concern for Others
- Respect for Others
- Customer Prioritisation
- Law Abiding
- Community and Environmental Responsibility
- Data Protection
- Whistle-blower Protection
- Workplace Diversity and employee compensation

Emerging Role Of The Finance Manager In India

A finance manager of a firm deals with how the money is raised from investors, how that money is invested and how the investors are rewarded with suitable return on their investments.

The key areas in which changes are taking place, are as under:

- Selection of project
- Raising Equity
- Raising debt
- Interest rate on debts
- Foreign exchange management:
- Treasury operations
- Coping with technological changes/data availability
- Dealing with Rating Agencies
- Investor communication

JAIIB Paper 3 AFM Module C Unit 2- Ratio Analysis

Accounting Ratios

Accounting ratio is the comparison of two or more financial data which are used for analyzing the financial statements of companies. It is an effective tool used by the **shareholders, creditors and all kinds of stakeholders to understand the profitability, strength and financial status of companies.**

Classification of Ratios

Accounting ratios can be classified on the following basis:

Traditional Classification



The traditional classification has been on the basis of the financial statements, to which the determinants of a ratio belong. On this basis, the ratios could be classified as:

- Profit and loss account ratios, i.e, ratios calculated on the basis of the profit and loss account only.
- Balance sheet ratios, i.e, ratios calculated on the basis of the figures of balance sheet only.
- Composite ratios or inter-statement ratios, i.e, ratios based on figures of profit and loss account as well as the balance sheet.

Functional classification

Traditional basis of classification, as given above, has been found to be too crude and unsuitable because, analysis of balance sheet and income statement cannot be done in isolation. They have to be studied together in order to determine the profitability and solvency of the business. According to the order that ratios serve as a tool for financial analysis, they are now classified as:

- Profitability ratios,
- Turnover or activity ratios, and
- Financial or solvency ratios

Financial ratios two categories:

- **Short term Solvency Ratios** are the ratios that disclose the financial position or solvency of the firm in the short period. Some accountants prefer to call them simply as 'Liquidity Ratios'.
- **Long term Solvency Ratios** are the ratios that disclose the financial position or solvency of the firm in the long period. Some accountants prefer to call them simply as 'Solvency Ratios'.

Uses of Accounting Ratios

- **Simply financial Statements:** Ratios simplify the comprehension of financial statement. Ratios tell the whole story of changes in the financial condition of the business.
- **Facilitate inter-firm comparison:** Ratios provide data for inter-firm comparison. Ratios highlight the factors associated with successful and unsuccessful firms. They also reveal strong firms and weak firm, overvalued and under- valued firms.
- **Facilitate intra-firm Comparison:** Ratios also make possible comparison of the performance of the different divisions of the firm. The ratios are helpful in deciding about their efficiency or otherwise in the past and likely performance in the future.



- **Help in planning:** Ratios help in planning and forecasting. Over a period of time, a firm or industry develops certain norms that may indicate future success or failure.

Limitations of Accounting Ratios

- The firm can make some year-end changes to their financial statements, to improve their ratios. Then the ratios end up being nothing but window dressing.
- Ratios ignore the price level changes due to inflation. Many ratios are calculated using historical costs, and they overlook the changes in price level between the periods. This does not reflect the correct financial situation.
- Accounting ratios completely ignore the qualitative aspects of the firm. They only take into consideration the monetary aspects (quantitative)
- There are no standard definitions of the ratios. So firms may be using different formulas for the ratios. One such example is Current Ratio, where some firms take into consideration all current liabilities but others ignore bank overdrafts from current liabilities while calculating current ratio
- And finally, accounting ratios do not resolve any financial problems of the company. They are a means to the end, not the actual solution.

Calculation and Interpretation of various Ratios

Profitability Ratios

Overall Profitability Ratio

It is also called as the '**Return on Investment**'. It indicates the percentage of return on the total capital employed in the business. It is calculated on the basis of the **following formula:**

$$\frac{\text{Operating Profit}}{\text{Capital Employed}} \times 100$$

Capital Employee: Different meanings by different accountants.

- Sum total of all assets whether fixed or current.
- Sum total of fixed assets
- Sum total of long term funds employed in the business i.e, Share+ Capital + Reserves and Surplus + Long term loans –(Non business assets+ fictitious assets)

Operating Profit: Means profit before 'Interest and Tax'. The term 'Interest' means interest means 'Interest on long term borrowings. Interest on short- term borrowings will be deducted for computing operating profit.

Earnings per share (EPS)

EPS tells about the earning per equity share. It can be computed as follows:



Earning per share=Net profit after tax and Pref. dividend/ Number of equity shares

Price Earning (P/E) Ratio

The ratio indicates the number of times the earning per share is covered by its market price. This is calculated according to the following formula:

Market price per equity share/ Earning per share

Gross Profit Ratios

The ratio expresses the relationship between the gross profit and the net sales.

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

Net Profit Ratio

This ratio indicates net margin earned on a sale of Rs. 100. It is calculated as follows:

$$\frac{\text{Net Operating Profit}}{\text{Net Sales}} \times 100$$

Solvency Ratios

A company is considered to be solvent or financially sound if it is in a position to carry on its business smoothly and meet all obligations, both long-term as well as short-term, without strain. The following are the important ratios for measuring the long-term solvency of a firm.

Long –term Solvency Ratios: In order to determine the long term solvency of a business, the following ratios will be useful:

(i)Fixed Asset Ratio: The ratio is expressed as follows:

Fixed assets/ Long-term funds

- **The ratio should not be more than 1. If it is less than 1**, it shows that a part of the working capital has been financed through long-term funds. This is desirable to some extent because a part of working capital, termed as 'Core Working capital' is more or less of a fixed nature. **The ideal ratio is 0.67.**
- **Fixed assets include 'net fixed assets'** (i.e, original cost- depreciation to date) and trade investments including share in subsidiaries. Long term funds include share capital, reserves and long term loans.

(ii)Debt Equity Ratio: The debt-equity ratio is calculated to ascertain the soundness of the long-term financial policies of the company. It is also known as the 'External-Internal' equity ratio. It may be calculated as follows:

Debt-equity ratio= External equities/ Internal equities

Short term Solvency Ratios



The following ratios will be useful for determining the short-term solvency of a business.

- **Current Ratio:** This ratio is an indicator of the firm's commitment to meet its short-term liabilities.

Current Assets/ Current liabilities

- **Liquidity Ratio:** This ratio is also termed as 'acid test ratio' or 'quick ratio'. This ratio is ascertained by comparing the liquid assets (i.e, assets which are immediately convertible into cash without much loss) to current liabilities. Prepaid expenses and stock are not taken as liquid assets. The ratio may be expressed as:

Liquid assets/ Current liabilities

Turnover Ratios

Stock turnover Ratio: This ratio indicates whether the investment in inventories is efficiently used or not. It, therefore, explains whether investment in inventories is within proper limits or not.

Cost of goods sold during the year/ Average inventory

Debtors 'Turnover Ratio (Debtors Velocity): Debtors are an important constituent of current assets and therefore, the quality of debtors, to a great extent, determines a firm's liquidity. Two ratios are used by financial analysis to judge this. They are:

- Debtors, turnover ratio, and
- Debt collection period ratio.

Debtor's turnover ratio is calculated as under:

Credit sales/ Average accounts receivable

Debt collection period Ratio: The ratio indicates the extent to which the debts have been collected in the time. It gives the average debt collection period. The ratio is very helpful to the lenders because it explains to them whether their borrowers are collecting money within a reasonable time. An increase in the period will result in greater blockage of funds in debtors. The ratio may be calculated by any of the following methods:

- Months (or days) in a year/ Debtors turnover
-

$$\frac{\text{Months (or days) in a year}}{\text{Credit sales for the year}} \times \text{Average accounts receivable}$$

- Account receivable/ Average monthly or daily credit sales



Different Users and Their Use of Ratios

Accounting ratios used by a long-term creditor:

- Fixed charges cover= $\text{Income before interest and tax} / \text{Interest charges}$
- Debt service coverage ratio= $\text{Cash profit available for debt service} / \text{Interest} + \text{Principal payment instalment}$

Accounting ratios used by a bank granting a short-term loan:

- Quick ratio= $\text{Quick assets} / \text{Current liabilities}$
- Current ratio= $\text{Current assets} / \text{Current liabilities}$

Accounting ratios used by shareholders:

- Earnings per share= $\text{Profit available for equity shareholders} / \text{No. of equity shares}$
- Dividend yield ratio= $\text{Dividend per share} / \text{Market price per share}$

JAIIB Paper 3 (AFM) Module C Unit 3- Financial Mathematics — Calculation of Interest And Annuities

Meaning of Interest

- Interest can be defined as the price paid by a borrower for the use of a lender's money.
- It is compensation paid to the depositor.
- In another words, it is excess of money paid or received on deposits or borrowings.
- Interest is the price paid by a borrower for the use of a lender's money. If you borrow (or lend) some money from (or to) a person for a particular period you would pay (or receive) more money than your initial borrowing (or lending).

Types of Interest

Interest can be of two types:

- Simple Interest
- Compound Interest

Simple Interest:

SI is interest earned on only the original amount, called Principal, lent over a period of time at a certain rate.



Formula = $PRT / 100$

P = Principal

Rate = rate

T = Time

Illustration:

Q.A student purchases a computer by obtaining a loan on simple interest.

The computer costs ₹ 60,000 and the interest rate on the loan is 12% per annum (simple). If, the loan is to be paid back after two years, calculate:

- The amount of total interest to be paid,
- The total amount to be paid back after 2 years,
- **Principal: 'P' = Rs. 60,000,**
- **Interest rate: 'R' = 12% = 0.12,**
- **Repayment time: T = 2 years**

Interest =

$$PRT = 60,000 \times 0.12 \times 2 = \text{Rs. } 14,400$$

Find the total amount to be paid back.

$$\text{Total repayments} = \text{Principal} + 60000 + 14400 = \text{Rs. } 74,400$$

Simple interest questions can be solved by applying the following formulas:

$$I = P \times rt$$

$$A = P + I \text{ Or,}$$

$$A = P + Prt \text{ Or,}$$

$$A = P(1 + rt)$$

$$I = A - P$$

A: Accumulated amount (final value of a deposit) at the end of the period

P: Principal (initial amount of the deposit)

r: annual interest rate expressed as a decimal fraction

I: interest after t years

Illustration 2:

Mohan invested Rs. 5,000 in a Company's fixed Deposit with an interest rate of 9.8%. How much interest would he earn in 2 years?



$P = \text{Rs.}5,000,$

$r = 9.8\%$

$t = 2 \text{ years}$

Answer

$I = P \times r \times t$

$I = (\text{Rs.}5,000) (9.8\%) (2) = \text{Rs.} 980$

Hence, Mohan would earn Rs. 980 in 2 years.

Compound Interest:

CI is interest earned on any previous interests earned as well as on the Principal lent. It is Interest on interest.

$CI = P(1+i)^n - P$

$A = P(1+i)^n$

P = Principal (Initial amount you borrowed or deposited)

r = Annual rate of interest (expressed as fraction, e.g. 6 per cent per annum = $6/100 = 0.06$)

n = Number of years for which the amount is deposited

A = Amount of money accumulated after n years including interest.

Frequently compounding of Interest

What if the interest is paid more frequently?

The accumulated amount (A), at the end of one year will be:

- ☐ **Annually** = $P (1 + r)$ = Annual compounding
- ☐ **Quarterly** = $P (1 + r/4)^4$ = Quarterly compounding
- ☐ **Monthly** = $P (1 + r/12)^{12}$ = Monthly compounding
- Interest is computed on an account balance (i.e. a saving account).
- However, when interest is added to the principal amount lying in the account versus returning it immediately to the customer, the interest itself will earn interest till the next date for computing the interest. This is known as the compounding of the interest or more simply stated as compound interest.
- **Compounding Interest:** The time interval between which the interest is added to the account

The interest rate together with compounding period and balance in the account determines how much interest is added in each compounding period.



- The basic formula is $A = P (1 + r/n)^{nt}$
- P = the principal
- A = the amount accumulated (Principal + Interest)
- r = the rate (expressed as fraction, e.g. 6 per cent = 0.06)
- n = number of times per year the interest is compounded
- t = number of years for which the principal amount is invested
- Note: The above explanation is more easily understandable by thinking in terms of a simplified compound interest. When the interest is only compounded once per year ($n = 1$)

illustration simplifies.

- $A = P (1 + r)^t$ $A = 10,000 (1 + 0.06)^1 = 10,600$
- The following table shows the final accumulated amount (A) after $t = 1$ year of an account initially with $P = 10,000$ at 6 per cent interest rate with given compounding (n)

	n	A
1	(yearly)	10,600
2	(semiannually)	10,609
4	(quarterly)	10,613
12	(monthly)	10,616
52	(weekly)	10,618

- If the applicable interest rate and the length of the deposit all remain the same, more interest is earned by increasing the number of compounding periods per year.
- **Special Note:** When interest is compounded continually (in other words, when n approaches infinity) the compound interest equation takes the form $A = Pert$ where e is approximately 2.71828 (the exponential number).
- **The Rule of 72:** Allows you to determine the approximate number of years before your money doubles with yearly compounding. Here is how to do it; Divide the number 72 by the percentage rate you are paying on your debt (or earning on your investment).

Illustration:



You borrowed Rs.1,000 at 6% interest. Then, 72 divided by 6 is 12. That makes 12 the approximate number of years it would take for your debt to double to Rs. 2,000, if you did not make any payment.

Similarly, a saving account with Rs. 500 deposited in it, earning 4% interest and compounded yearly, will take 18 years for Rs. 500 to double to Rs. 1,000 if you do not make any further deposit, as 72 divided by 4 is 18.

Illustration

The simple interest in 3 years and the compound interest in 2 years on a certain sum at the same rate are Rs. 1,200 and Rs. 832 respectively. Find

- The rate of interest,
- The principal,
- The difference between the C.I. and S.I. for 3 years

$$(i) CI(2 \text{ year}) - SI(2 \text{ year}) = SI(2 \text{ year}) * r / 200 = PR^2 / 100^2$$

$$SI \text{ for 3 years} = 1200$$

$$\text{so for 2 years} = 800$$

$$832 - 800 = 800 * r / 200$$

$$32 = 4 * r$$

$$r = 8\%$$

$$(ii) CI(2 \text{ year}) - SI(2 \text{ year}) = PR^2 / 100^2$$

$$32 = P * 8^2 / 10000$$

$$= 5000$$

$$(iii) \text{ Amount due after 3 years} = Rs. 5,000 \times (1 + R)^3 =$$

$$= 5,000 \times 1.2597$$

$$= Rs. 6,298.56$$

$$\text{Hence, C.I. for 3 years} = A - P = 6,298.56 - 5,000 = Rs. 1,298.56$$

$$\text{The difference between the C.I. and S.I. for 3 years} = 1,298.56 - 1,200 = Rs. 98.56$$

Illustration

The population of an industrial town is increasing by 5% every year. If the present population is 1 million, estimate the population five years hence. Also, estimate the population three years ago.

Solution

Present population, $P = 1$ million, rate of increase = 5% per annum Hence, the population after 5 years = $10,00,000 (1.05)^5 = 12,76,280$



Population three years ago = $10,00,000 / (1.05)^3 = 8,63,838$

Since the population three years ago, compounded at 5 per cent, is equal to 1 million, today.

Fixed And Floating Interest Rates

There are two different modes of interest.

- Fixed Rates
- Floating Rates also called as variable rates.

Fixed Rate:

- In the fixed rate, the rate of interest is fixed. It will not change during the entire period of the loan.
- For example, if a home loan, taken at an interest rate of 12 per cent, is repayable in 10 years, the rate will remain the same for the entire tenure of 10 years even if the market rate increases or decreases. The fixed rate is, normally, higher than the floating rate, as it is not affected by market fluctuations.

Floating Rate:

- In the floating rate or variable rate, the rate of interest changes, depending upon the market conditions. Under floating rate, the interest rate is usually linked to a benchmark rate which could be the MCLR/base rate of the bank or any other benchmark rate of the banking industry.
- It may increase or decrease depending upon the change in the benchmark rate.
- For example, if a home loan is taken at an interest rate of 12 per cent, repayable in 10 years, in April 2021, and if the benchmark rate increases to 12.5 per cent in April, 2022, the interest rate of this loan will also be increased to 12.5 per cent. If the loan is under an EMI system, depending upon the change in interest rate, the repayment period varies, but equated monthly instalment remains the same. However, the borrower may choose to have the repayment period same and pay a higher EMI.

Front-End And Back-End Interest Rates

If the interest is deducted from the principal amount and only the net amount is disbursed, it is **called front-end interest**.

For example, when the bank discounts a bill, the interest applicable for the tenure of the bill is calculated and is deducted from the bill amount along with other charges and the net amount is paid to the customer.

However, the normal practice in banking industry is to charge back-end interest rate which means that the full amount of the loan is disbursed and the interest is charged subsequently on monthly/quarterly/agreed basis.

For example, in a term loan, the interest is calculated on the actual daily balances in the account during a period and applied at the end of the period. Obviously, the frontend



interest application results in effective interest rate being more as the borrower gets less amount for use whereas, the interest is applied on the full amount.

Calculation Of Interest Using Products/Balances

- Calculation of front-end interest like in bill discounting is easy as the amount is assumed to be constant over the entire period.
- For example, if the tenure of the bill of Rs.2 lac is 3 months and the rate of discount is 16% p.a., the interest amount will be Rs.8,000.
- In banks, many of the cases of deposit and loan accounts involve calculation of interest on the basis of daily balance in the customer's account.
- While this method was prevalent in case of the loan accounts, even in case of Savings Account, the interest is now required to be calculated on the basis of daily balances.
- In this method, the closing balance in the account is multiplied by the number of days for which that balance remains unchanged.
- Such products are calculated for the entire period for which the interest is to be applied.
- The sum of such products is multiplied by the applicable interest rate and divided by 365(No. of days in a year).

The following illustration will clarify this. Illustration The following table shows date-wise closing debit balances in the cash credit account of customer for the month of June 2022, and the calculation of products.

Date	Balance	No. of Days	Product
1/6/2019	10,000	5	50,000
6/6/2019	15,000	4	60,000
10/6/2019	12,000	5	60,000
15/6/2019	10,000	7	70,000
22/6/2019	22,000	4	88,000
26/6/2019	20,000	4	80,000
30/6/2019	18,000	1	18,000

The total of the products is 426,000.

If the interest rate is 15% p.a., the interest for the month of June 2022 will be $(426,000 \times 0.15)/365 = \text{Rs. } 175.1$.

Alternatively,



$$[(10000 * 15\% * (5/365)) + (15000 * 15\% * (4/365)) + \dots + (18000 * 15\% * (1/365)) = 175.1$$

Annuities

What are Annuities?

At some point in your life, you may have had to make a series of fixed payments over a period of time –such as rent or car payments-or have received a series of payments over a period of time, such as bond coupons. These are called annuities. (Regular periodic payment)

- **Ordinary Annuity:** Payment are required at the end of each period. For an illustration, straight bonds usually make coupon payments at the end of every six months until the bond's maturity date.
- **Annuity Due:** Payments are required at the beginning of each period. Rent is an illustration of annuity due. You are usually required to pay rent when you first move in at the beginning of the month, and then on the first of each month thereafter.

Calculating The Future Value Of An Ordinary Annuity

- If you know how much you can invest per period for a certain time period, the future value of an ordinary annuity formula is useful for finding out how much you would have in the future by investing at your given interest rate.
- If you are making payments on a loan, the future value is useful for determining the total cost of the loan.

Let us now run through the illustration 1.

Consider the following annuity cash flow schedule:

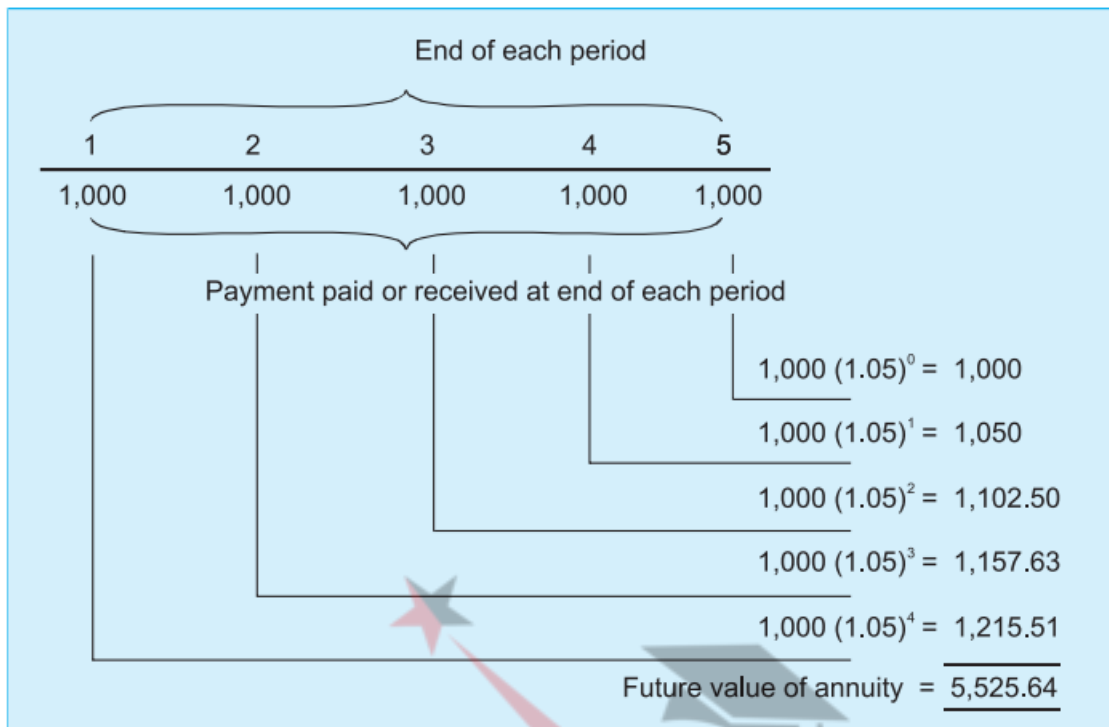
End of each period					
0	1	2	3	4	5
	1,000	1,000	1,000	1,000	1,000
Payment paid or received at end of each period					

In order to calculate the future value of the annuity, we have to calculate the future value of each cash flow.

Let us assume that you are receiving Rs. 1,000 every year for the next five years, and you invest each payment at 5%.



The following diagram shows how much you would have at the end of the five-year period:



$$FV (\text{Ordinary Annuity}) = C * \left[\frac{(1+i)^n - 1}{i} \right]$$

C = Cash flow per period

i = interest rate

n = number of payments

If we were to use the above formula for the illustration 1 above, this is the result:

$$\begin{aligned} FV (\text{Ordinary Annuity}) &= 1,000 * \left[\frac{(1+.05)^5 - 1}{.05} \right] \\ &= 1,000 * [5.53] \\ &= 5,525.63 \end{aligned}$$

Q.If Rs. 10000 is deposited at the end every year, how much amount will be received after 5 years at 10% p.a. interest.

$$= 10000 [1.10^5 - 1] / .10$$

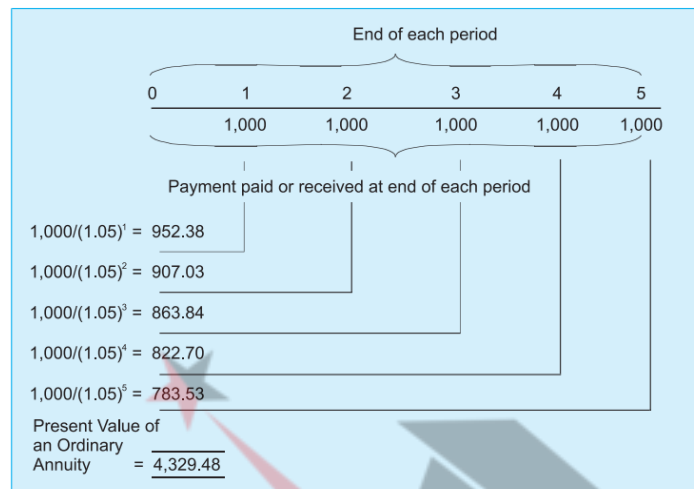
$$= \text{Rs.} 61051$$

Calculating The Present Value Of An Ordinary Annuity



- If you would like to determine today's value of a series of future payments, you need to use the formula that calculates the present value of an ordinary annuity.
- You would use this formula as part of a bond pricing calculation.
- The PV of ordinary annuity calculates the present value of the coupon payments that you will receive in the future.

For the illustration



$$PV (\text{Ordinary Annuity}) = C * \left[\frac{(1 + r)^n - 1}{r(1 + r)^n} \right]$$

C = Cash flow per period

r = interest rate

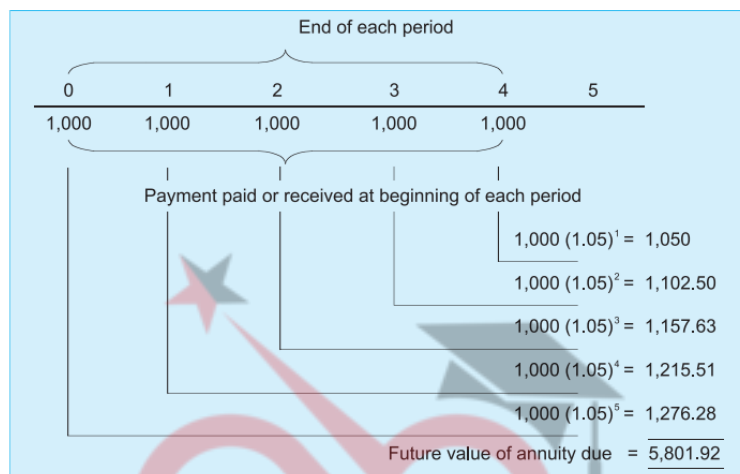
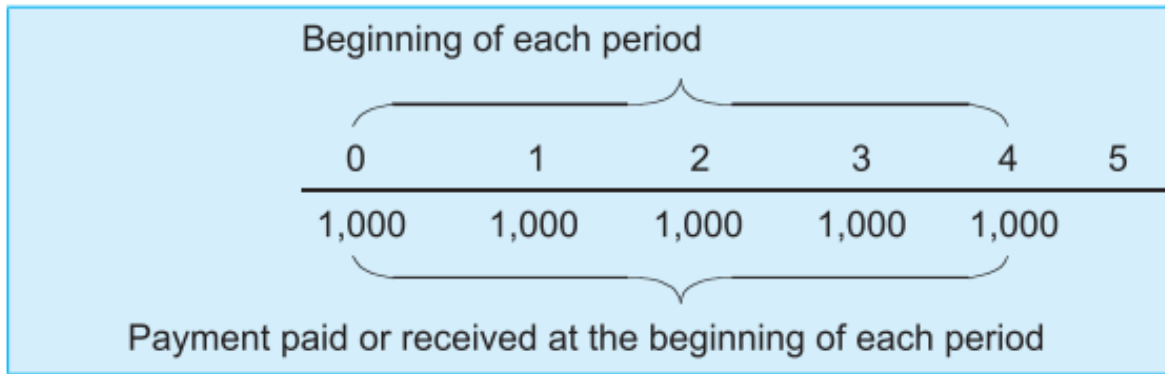
n = number of payments

The formula provides us with the PV in a few easy steps. Here is the calculation of the annuity represented in the diagram for Illustration 2:

$$\begin{aligned}
 PV (\text{Ordinary Annuity}) &= 1,000 * \left[\frac{(1 + .05)^5 - 1}{0.05(1.05)^5} \right] \\
 &= 1,000 * \left[\frac{0.27628}{0.05(1.27628)} \right] \\
 &= 1,000 * \frac{0.27628}{0.063814} \\
 &= 1,000 * 4.3295 \\
 &= 4,329.45
 \end{aligned}$$

Calculating The Future Value Of An Annuity Due

- When you are receiving or paying cash flows for an annuity due, your cash flow schedule would appear as follows: Since, each payment in the series is made one period sooner; we need to discount the formula one period later.
- A slight modification to the FV-of-an-ordinary-annuity formula accounts for payments occurring at the beginning of each period.



$$FV (\text{Annuity Due}) = C * \left[\frac{(1+i)^n - 1}{i} \right] * (1+i)$$

Therefore,

$$\begin{aligned}
 FV (\text{Annuity Due}) &= 1,000 * \left[\frac{(1+.05)^5 - 1}{.05} \right] * (1+.05) \\
 &= \text{Rs. } 1,000 * 5.53 * 1.05 \\
 &= \text{Rs. } 5,801.91
 \end{aligned}$$

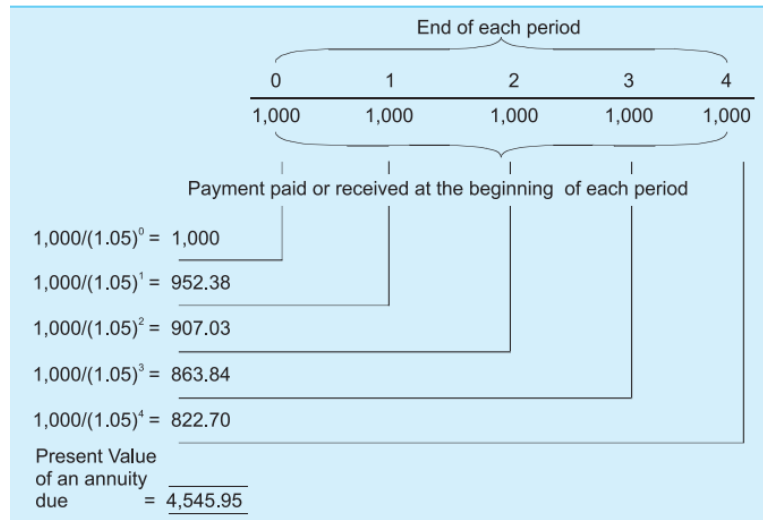
Calculating The Present Value Of An Annuity Due

- For the present value of an annuity due, we need to discount the formula one period forward, as the payments are held for a lesser amount of time.
- When calculating the present value, we assume that the first payment made was today.
- We could use this formula for calculating the present value of your future rent payments as specified in a lease you sign with your landlord. Let us say for the illustration that you make your first rent payment at the beginning of the month



and are evaluating the present value of your five-month lease on that same day.

Your present value calculation would work as follows:



$$PV (\text{Annuity Due}) = C * \left[\frac{(1+r)^n - 1}{r(1+r)^n} \right] \times (1+r)$$

Therefore,

$$\begin{aligned}
 PV (\text{Annuity Due}) &= 1,000 \times \left[\frac{(1.05)^5 - 1}{.05(1.05)^5} \right] \times 1.05 \\
 &= 1,000 \times \left[\frac{0.27628}{0.063814} \right] \times 1.05 \\
 &= 1,000 \times 4.3295 \times 1.05 = 4,545.92
 \end{aligned}$$



$$FV (\text{Ordinary Annuity}) = C * \left[\frac{(1+i)^n - 1}{i} \right]$$

$$PV (\text{Ordinary Annuity}) = C * \left[\frac{(1+r)^n - 1}{r(1+r)^n} \right]$$

$$FV (\text{Annuity Due}) = C * \left[\frac{(1+i)^n - 1}{i} \right] * (1+i)$$

$$PV (\text{Annuity Due}) = C * \left[\frac{(1+r)^n - 1}{r(1+r)^n} \right] \times (1+r)$$

Repayment Of A Debt

A debt is required to be repaid as per the terms of the contract with lender.

In the banking industry in India, the following three methods of repayment are common.

- ✓ Equal monthly/quarterly installment of principal plus the interest applied during the period.
- ✓ Equated monthly/quarterly installment covering both the principal and the interest.
- ✓ Bullet/balloon repayment under which the entire loan amount is repaid at the end of the period with accumulated interest. Alternatively, the interest is paid periodically, as and when applied, and the principal amount of the loan is paid at the end of the contract period.

These are discussed below in detail.

Equal monthly/quarterly installment of principal plus the interest applied during the period.

Illustration

Your friend has borrowed Rs.1,000 from you and wants to repay you on a monthly basis rather than the whole amount all at once at the end of the year. The important point here is that he will owe you less in principal each month.

The applicable rate of interest 8% p.a. means 0.667% per month.

Calculation:



The principal payment each month will be Rs. 83.33 ($1,000/12$)

First month: Interest = $1,000 \times 0.667\% \times 1 = 6.67 + 83.33 = \text{Rs. } 90$.

The principal owed at the end of the month is Rs. 916.67.

Second month: Interest = $916.67 \times 0.667\% \times 1 = 6.11 + 83.33 = 89.44$.

Third month: Interest = $833.34 \times 0.667\% \times 1 = 5.56 + 83.33 = 88.89$.

And so on for the twelve months.

Balance	Principal Payment	Interest Payment	Total Payment
1,000.00	83.33	6.67	90.00
916.67	83.33	6.11	89.44
833.34	83.33	5.56	88.89
750.01	83.33	5.00	88.33
666.68	83.33	4.44	87.77
583.35	83.33	3.89	87.22
500.02	83.33	3.33	86.66
416.69	83.33	2.78	86.11
333.36	83.33	2.22	85.55
250.03	83.33	1.67	85.00
166.70	83.33	1.11	84.44
83.37	83.33	0.56	83.89
	999.96	43.34	1,043.30

JAIIB Paper 3 (AFM) Module D Unit 4- Calculation of YTM

Meaning of Debt

Debt means a sum of money due by one party to another. Most business need a mix of debt and equity to run their operations. **This is called the capital structure of that firm/company.**

Debts can arise through bank borrowings, fixed deposits, bonds or other instruments. Where the amount is fixed and specific, and does not depend upon any future valuation to settle it.

Bonds

Debt Capital Consists of mainly bonds and debentures.

What are Bonds?

Bonds are issued by organizations generally for a period of more than one year to raise money by borrowing.

Organizations in order to raise capital issue bond to investors which is nothing but a financial contract, where the organization promises to pay the principal amount and interest (in the form of coupons) to the holder of the bond after a certain date. (Also called maturity date). Some Bonds do not pay interest to the investors, however it is mandatory for the issuers to pay the principal amount to the investors.

Why Investment is Important?



Every individual needs to put some part of his income into something which would benefit him in the long run. Investment is essential as unavoidable circumstances can arise anytime and anywhere. One needs to invest money into something which would guarantee maximum returns with minimum risks in future. Money saved now will help you overcome tough times in the best possible way.

Characteristics of a Bond

- **Face value:** Also known as, the par value and stated on the face of the bond. It represents the amount borrowed by the firm, which it promises to repay after a specified period.
- **Coupon rate:** A bond carries a specific rate of interest, which is also called as the coupon rate.
- **Market value:** A bond may be traded on a stock exchange. Market value is the price at which the bond is usually bought or sold in the market. Market value may be different from the par value or the redemption value.
- **Redemption Value:** The value, which the bondholders gets on maturity. Is called the redemption value, A bond is generally issued at a discount (less than par value) and redeemed at par.
- **Maturity date:** Maturity date refers to the final date for the payment of any financial product when the principal along with the interest needs to be paid to the investor by the issuer.

Types of Bonds

Following are the types of bonds:

- **Fixed Rate Bonds:** In Fixed Rate Bonds, the interest remains fixed through out the tenure of the bond. Owing to a constant interest rate, fixed rate bonds are resistant to changes and fluctuations in the market.
- **Floating Rate Bonds:** Floating rate bonds have a fluctuating interest rate (coupons) as per the current market reference rate.
- **Zero Interest Rate Bonds:** Zero Interest Rate Bonds do not pay any regular interest to the investors. In such types of bonds, issuers only pay the principal amount to the bond holders.
- **Inflation Linked Bonds:** Bonds linked to inflation are called inflation linked bonds. The interest rate of Inflation linked bonds is generally lower than fixed rate bonds.
- **Perpetual Bonds:** Bonds with no maturity dates are called perpetual bonds. Holders of perpetual bonds enjoy interest throughout.
- **Subordinated Bonds:** Bonds which are given less priority as compared to other bonds of the company in cases of a close down are called subordinated bonds. In cases of liquidation, subordinated bonds are given less importance as compared to senior bonds which are paid first.



- **Bearer Bonds:** Bearer Bonds do not carry the name of the bond holder and anyone who possesses the bond certificate can claim the amount. If the bond certificate gets stolen or misplaced by the bond holder, anyone else with the paper can claim the bond amount.
- **Covered bond:** Covered bond are backed by cash flows from mortgages or public sector assets. Contrary to asset-backed securities the assets for such bonds remain on the issuers balance sheet.
- **A Government Band:** A government band, also called Treasury bond, is issued by a national government and is not exposed to default risk.

Optionality In Bonds

Occasionally a bond may contain an embedded option; that is, it grants option-like features to the holder or the issuer:

- **Callability:** Some bonds give the issuer the right to repay the bond before the maturity date on the call dates. This is call option. These bonds are referred to as callable bonds. Most callable bonds allow the issuer to repay the bond at par. With some bonds, the issuer has to pay a premium, the so-called call premium.
- **Putability-** Some Bonds give the holder the right to force the issuer to repay the bond before the maturity date on the put dates. This is put option. These are referred to as retractable or putable bonds.

Valuation of Bonds

A security/Bond can be regarded simply as an **asset that pay a series of dividends or interests over a period**. Therefore, the value of any security can be defined as the present value of these future cash streams, i.e, the intrinsic value of an assets is equal to the present value of the benefits associated with it. It is quite clear that the holder of a bond receives a fixed annual interest payment for a certain value (equal to par value) at the time of maturity. Therefore the intrinsic value of the present value of a bond is

$$V_0 = \sum_{t=1}^n \frac{I}{(1 + kd)^t} + \frac{F}{(1 + kd)^n}$$

V₀=intrinsic value of the bond

I= Annual interest payable on the bond

F= Redeemable value of the bond

n= Maturity period of the bond



kd= Cost of capital

Note: Solving the problems related to bond valuation, usually Present value Interest Factor of Annuity pertaining to the applicable interest rate are provided. PVIF represents the discount value of one Rupee for the period concerned and interest rate while PVIFA represents the present value of an ordinary annuity for the period concerned and interest rate. Example- PVIF (10%, 6) means present value of one Rupee to be received after 6 periods at the interest rate of 10% period. PVIFA (10%,6) means present value of an ordinary annuity one Rupee per period for 6 period at the interest rate of 10% per period.

Example:

A bond, whose par value is Rs 1000, bears a coupon rate of 12% and has a maturity period of 3 years. The required rate of return on the bond is 10%. What is the value of this bond?

Solution-

Annual interest payable= $1000 \times 12\% = 120$

Principle repayment at the end of 3 years= Rs 1000

The value of the bond

$120(\text{PVIFA } 10\%, 3\text{yrs}) + 1000 (\text{PVIF } 10\%, 3\text{ yrs})$

$= 120(2.487) + 1000(0.751)$

$= 298.44 + 751$

$= 1049.44$

Bond Value with Semi- Annual Interest

If the Bond carries a semi-annual, as the amount of the half-yearly interest can be reinvested, the value of such bonds would be more the value of bonds with an annual interest payment. Hence, by multiplying the numbers of years to maturity by two and dividing the (i) annual interest payment, (ii) discount rate by two we can modify bond valuation formula as follows:

$$V_0 = \sum_{t=1}^{2n} \frac{I/2}{(1 + kd/2)^t} + \frac{F}{(1 + kd/2)^n}$$

Example:



A bond, whose par value is Rs 1000 bears a coupon rate of 12% payable semiannually and has a maturity period of 3 years. The required rate of return on bonds is 10%. What is the value of this bond?

Solution-

Semi-annual interest payable= $1000 \times 12\% / 2 = 60$

Principal repayment at the end of 3 years=1000

The value of the bond

= $60(PVIFA\ 10\% / 2, 6\text{dps}) + 1000(PVIF\ 10\% / 2, 6\text{dps})$

= $60(5.0746) + 1000(0.746)$

= $304.48 + 746$

=1050.48

Current Yield on Bond

Current yield represents the prevailing interest rate that a bond or fixed income security is delivering to its owners.

The formula for current yield is defined as follows:

$CY = \text{Annual interest payment} / \text{Current Bond Price}$

For example, let's assume a particular bond is trading at par, or 100 cents on the dollar, and that it pays a coupon rate of 3%. In this case, the bond's current yield will also be 3% (as shown below).

$CY = 3 / 100 = 3.00\%$

However, let's now assume that the same bond is trading at a discount to its par value. For the sake of example, let's say investors can now purchase the bond for just 95 cents on the dollar. In this case, even though the bond will still be paying a 3% coupon, its current yield will actually be slightly higher (as shown below):

$CY = 3 / 95 = 3.16\%$

As another example, let's say the bond is trading at a premium to its face value -- 110 cents on the dollar. In this case, even though the bond will still be paying a 3% coupon, its current yield will actually be quite a bit lower (as shown below):

$CY = 3 / 110 = 2.73\%$

Use our Yield to Call (YTC) Calculator to measure your annual return if you hold a particular bond until its first call date.

Use our Yield to Maturity (YTM) Calculator to measure your annual return if you plan to hold a particular bond until maturity.

Yield-To- Maturity of Bond



It is the rate of return earned by an investor, who purchases a bond and holds it until the maturity. The YTM is the discount rate, which equals the present value of promised cash flows to the current market price/ Purchase price.

Example:

Consider a Rs 1000 par value bond, whose current market price is Rs 850/-. The bond carries a coupon rate of 8% and has the maturity period of 9 yrs. What would be the rate of return that an investor earns if he purchase the bond and holds until maturity?

Solution:

If k_d is the yield to maturity then,

$$850 = 80 (PVIFA\ k_d\ \%,\ 9\ \text{yrs}) + 1000 (PVIF\ k_d,\ 9\ \text{yrs})$$

To calculate the value of k_d , we have to try several values:

$$= 80 (PVIFA\ 12\%,\ 9) + 1000 (PVIF\ 12\%,\ 9)$$

$$= 80 * 5.328 + 1000 * (0.361)$$

$$= 426.24 + 361 = 787.24$$

Since, the above value is less than 850, we have to try with value less than 12%. Let us try with $k_d = 10\%$

$$= 80 (PVIFA\ 10\%,\ 9) + 1000 (PVIF\ 10\%,\ 9)$$

$$= 80 * 5.759 + 1000 * 0.424$$

$$= 884.72$$

Form the above it is clear that k_d lies between 10% and 12%. We have to use linear interpolation in the range of 10% and 12%. Using it, we find that k_d is equal to the following:

$$= 10\% + (12\% - 10\%) * \frac{884.72 - 850}{884.72 - 787.24}$$

$$= 10\% + 2\% * \frac{34.72}{97.48}$$

$$= 10.71\%$$

Therefore, the yield to maturity is 10.71%

Duration of Bond

What Is The Duration Of A Bond?

The duration of a bond expresses the sensitivity of the bond price to changes in the interest rate. In other words, the bond duration measures the movement in the price of the bond for every 1% change in the interest rate.

The unit of bond duration is expressed in years. Also, the price of the bond and the interest rates are inversely related. Therefore, if a bond has a duration of 5 years, it signifies that for every 1% increase in the interest rate, the price of the bond will fall by



5% and vice-a-versa. The greater is the bond duration, the greater will be the amplification in the movement of bond price for every single unit of change of the interest rates.

There is a simple way of computing the desired duration period:

- Determine the cash flows from holding the bond.
- Determine the present value of these cash flows by discounting the flows with discount rate. (YTM)
- Multiply each of the present values by respective numbers of years left before the present value is received.
- Sum these products up and divide by the present value to get the duration of the bond.

Properties of Duration

- Duration is less than the term to maturity
- Bond's duration will be equal to its term to maturity if and only if it is a zero coupon bond
- The duration of perpetual bond is equal to $(1+r)/r$, where r =current yield of the bond'
- Longer a coupon paying bond's term to maturity, the greater the difference between its term to maturity and duration.
- Duration and YTM are inversely related.
- Larger the coupon rate, smaller the duration of a bond
- An increase in the frequency of coupon payments decrease the duration, while a decrease in frequency of coupons increases it. Duration of a bond declines as the bond approaches maturity.

Bond Price Volatility

The sensitivity of the bond price to changes in the interest rates is called "Bond Volatility". Bond prices and YTM are inversely related. Therefore, instantaneous changes in market yields cause prices to changes in the opposite direction. The extent of change in the bond prices for a change in YTM measures the interest rate risk of a bond. The interest rate risk is a function of the interest rate elasticity. Interest rate elasticity (IE) can be defined as:

IE= Percentage change in price for bond In period t /Percentage change in yield to maturity for bond



Interest rate elasticity is always a negative number, due to the inverse relationship between YTM and bond prices.

Bond price elasticity can also be computed with the help of following mathematical formula:

$$IE = D * YTM / (1 + YTM)$$

The above equation suggests that the duration and interest rate elasticity of a bond are directly related. Anything that causes the duration of a bond to increase will also increase the bond's interest rate elasticity.

JAIIB Paper 3 (AFM) Module C Unit 5 – Financial Mathematics /Forex Arithmetic

Foreign Exchange'

- **'Foreign Exchange'** refers to the general mechanism by which a bank converts the currency of one country into that of another.
- Foreign trade gives rise to foreign exchange.
- Foreign trade is transacted (i.e. expressed and paid for) either in the currency of the exporter's country or that of the importer's country or that of a third country (like Pound Sterling, US Dollars, etc.), acceptable to both the exporter and the importer.

Fundamentals Of Foreign Exchange

There are three fundamental aspects of this general mechanism of foreign exchange

- Almost every country has its own currency (legal tender, distinctive unit of account) and the useful possession of the currency, can normally be had only in that country, in which it passes.
- The exchange from one currency for another is, mostly, put through by the banks by means of bookkeeping entries carried out in the two centres concerned.
- Almost all exchanges of one currency for another are effected with the help of credit instruments.

Indian Forex Market

- The exchange rate movements in the Indian forex market do not necessarily follow the international trend, particularly in the short run.
- The main reason for this is the restriction on the free flow of capital into or out of the country.
- Prior to the **modified 'Liberalised Exchange Rate Management System' (LERMS)**, the Reserve Bank fixed the buying and selling rates and the market would remain within the ceiling and the floor, thus fixed by the Reserve Bank.



- However, at present, the forces of demand and supply in the local interbank market drive the exchange rate.

Direct And Indirect Quote

- A currency quotation is the price of a currency in terms of another currency.
- For example, \$1 = Rs 75.00, means that one dollar can be exchanged for Rs. 75.00.
- Alternatively, we may pay Rs 75.00 to buy one dollar.
- A foreign exchange quotation can be either a direct quotation and or an indirect quotation, depending upon the home currency of the person concerned.
 - ❑ A direct quote is the home currency price of one unit of the foreign currency.
 - ❑ Thus, in the aforesaid example, the quote \$1 = Rs. 75.00 is a direct quote for an Indian national.
 - ❑ An indirect quote is the foreign currency price of one unit of the home currency.

Some Basic Exchange Rate Arithmetic

Cross Rate

- If a person wants to remit Euros from India, and as a banker, and for argument sake, rupees/Euros are **not normally quoted** and therefore, what we have to do is first buy dollars against the rupees and the same dollars will be disposed of overseas to acquire the Euros.

Chain Rule

- Calculation of the cross rate is based on a common sense approach. However, it can be reduced to a rule known as the chain rule with similar steps.

Value Date

The value date is a date on which the exchange of currencies actually takes place. Based on this concept, we have the following types of exchange rates.

- **Cash/ready:** It is the rate when an exchange of currencies takes place on the date of the deal.
- **TOM:** When the exchange of currencies takes place on the next working day, i.e. tomorrow it is called the TOM rate.
- **SPOT:** When the exchange of currencies takes place on the second working day after the date of the deal, it is called the spot rate.
- **Forward rate:** If the exchange of currencies takes place after a period of spot date, it is called the forward rate. Forward rates generally are expressed by indicating a premium/discount for the forward period.



- **Premium:** When a currency is costlier in forward or say, for a future value date, it is said to be at a premium. In the case of the direct method of quotations, the premium is added to both the selling and buying rate.
- **Discount:** If currency is cheaper in the forward or for a future value date, it is said to be at a discount. In the case of a direct quotation, the discount is (deducted) subtracted from both the rates, i.e. buying and selling rates.

Forward Exchange Rates

- As discussed earlier, an exchange rate is the price at which currency can be bought or sold for another currency.
- The date on which the values are exchanged can be any date starting from the date of transaction onwards.
- Generally, the exchange rates are quoted on a spot basis, i.e. the settlement takes place on the 2nd working day after the date of transaction.
- The exchange rate for settlement on a date beyond the spot is naturally different and the same is called the forward rate.

Forward rate has two components:

- ✓ Spot rate
- ✓ Forward points reflecting the interest rate differentials adjustment for different settlement dates.

Forward Points

Let us suppose that the spot rate of US\$/Euro is

$$\text{Spot Euro 1} = \text{US\$ } 1.2180$$

the exchange rate 3 months forward is

$$3 \text{ months Euro 1} = \text{US\$ } 1.2330$$

The difference of 150 points referred to are the forward points.

The following factors determine the forward points:

- ✓ Supply and demand for the currency for the settlement date. If there are more buyers for a particular date than sellers, the forward points will be different from the situation if there were more sellers than buyers for that particular settlement date.
- ✓ Market view, i.e. expectations, about the future and developments likely to take place in interest rates and foreign exchange.
- ✓ The interest rate differential between the countries, for the period in question, whose currencies are being exchanged.
- ✓ However, if there are no controls on capital flows, the interest rate differential between the two currencies is the most dominant factor in determining the forward points.



- ✓ This is based on the simple logic of a trade off between the interest earned on one currency and the opportunity foregone to earn interest on another currency.

Let us take an example for illustrating as to how forward differential points arises:

Spot Euro 1 = US\$ 1.5000

Interest, Euro @ 3% per annum,

US\$ @ 6% per annum.

Suppose someone borrows Euro 100 for one year @ 3% per annum converting it into US\$ and places the same as a deposit for one year @ 6%, his cash flows will be as under:

	Euro		US\$	
	Inflow	Outflow	Inflow	Outflow
Spot borrowing	+ 100			
Sells Euros		-100	+ 150	
One year hence interest		- 3	+ 9	
Total		- 103	+ 159	
Sells US\$ One year @ 1.50 Net gain	+ 106 Euro 3			-159

Thus, a person can make Euro 3 in one year by borrowing Euro and converting the same into US\$ and after one year converting US\$ again into Euro.

However, it is being presumed that US\$/Euro rate continues to be same for spot and one year forward.

The US\$/Euro rate will be: Euro 103 = US\$159 i.e. Euro 1 = 159/103
= US\$ 1.5436

Thus, 0.0436 represents the forward differential between spot and one year forward.

Arbitrage

- Arbitrage is an operation by which one can make risk free profits by undertaking offsetting transactions.
- Arbitrage can be in interest rates, i.e. borrow at one centre and lend at another at a higher rate.
- Arbitrage can occur in exchange rates also. However, with the present day efficient communication system, arbitrage opportunities are very rare.
- In the above example forward rate, i.e.

Euro 1 = US\$ 1.5436, would perfectly offset the interest rate differential and can be calculated as follows:

Principal + interest of US\$ investment = US\$ 159



Principal + interest of Euro loan = Euro 103

Therefore, Euro 103 = US\$ 159 Or

Euro 1 = US\$ 159/103 = US\$ 1.5436

Calculating Forward Points

We can calculate the approximate forward points for a given forward period with the help of the following information:

Spot exchange rate = 1.5000

Interest rate differential = 3% per annum

Forward period = 90 days

No. of days in an year (360 or 365) = 360 days

The formula is as follows

$$\frac{\text{Spot rate} \times \text{Interest rate differential} \times \text{Forward period}}{100 \times \text{No. of days in the year}}$$

$$\frac{1.500 \times 3 \times 90}{100 \times 360} = 0.01125$$

Forward differential, is also known as the '**Swap Rate**'. Three months forward rate for a US\$/Euro can be calculated by adjusting spot rate with the forward differential.

Interest differential from forward points:

The formula for calculating the interest rate differential from the forward points is as under:

$$\text{Interest rate differential} = \frac{\text{Forward points} \times \text{No. of days in the year} \times 100}{\text{Spot rate} \times \text{Forward period}}$$

Continuing the above example, we have

$$= \frac{0.01125 \times 360 \times 100}{1.50 \times 90} = 3\% \text{ per annum}$$

Premium and Discount

- forward exchange rates are quoted when the value date in the foreign exchange transaction is beyond the spot date.
- Spot exchange rate and forward rates are different.
- The difference between spot rate and forward rate is known as the forward differential and the same can be at a premium or a discount. Let us illustrate this with the help of spot and forward exchange rates:

Spot inter-bank rate US\$ 1 = Rs. 74.8450



3 months forward US\$ 1 = Rs. 74.8725

Thus, if one has to buy 3 months forward US\$ against rupees he has to pay more for the same US\$ by 0.0275. To understand this, it can be said that the three months forward US\$ is costlier by Rs. 0.0275 as compared to spot. Therefore, US\$ is at a premium in forwards vis-à-vis rupee.

- In case of direct quotations, a premium is always added, i.e. added to both buying and selling side.
- Take another situation when the inter-bank quotes are as under:

Spot US\$ 1 = Rs. 74.8450

3 months forward US\$ 1 = Rs. 74.7950

- It is clear from the above quotes that one US\$ is available for lesser rupees as compared to the spot.
- In other words, it can be said that US\$ is cheaper in forward as compared to spot, i.e. US\$ is at a discount vis-à-vis rupees.
- If one buys US\$ 1 now, then 3 months forward he has to pay a lesser amount in rupee terms by 0.0500.
- In case of direct quotations, a discount is always deducted, i.e. deducted both from the buying and selling side.

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JAIIB Paper 3 (AFM) Module D Unit 6 - Capital Structure and Cost Of Capital

Introduction

- A business firm needs money to carry on its business.



- The money is required for creating fixed assets like factory building, plant and machinery, office equipment etc.
- For creating these assets, the firm has to arrange for money which cannot be repaid in a short period of time.
- Money is also required for current assets like purchasing raw materials, converting them into finished goods and selling on credit to customers.
- These current assets are partly financed by the short term sources of money like credit by suppliers and bank overdrafts. But a portion is to be financed by long term sources also.

So, the firm has to arrange for money for long term for two purposes:

- 1st: Creating fixed assets and
- 2nd: Partly financing the current assets required to be held by the firm, also called the working capital.
- The long term sources of capital, used by the firm to part finance the total working capital requirements is the margin money or better known as the Net Working Capital (NWC).

Meaning of Capital Structure

- This long term money required by the firm is known as the capital.

Now, this long term money can be from two sources:

- EQUITY or owner's money
- DEBT

DIFFERENCE: Equity is the risk capital put in the business by the owners who get return on their investment by way of profits earned by the firm while the debt providers are not owners of the firm and they lend the money to the firm on agreed terms of repayment and interest payment.

The purpose of these lenders is to earn interest on their surplus funds and at the same time not to take any business risk as they do not share profit or loss of the firm.

Capital Structure is referred to as the proportion of debt and equity in the total long term funds raised by the firm.

Illustration:

A firm starts its business by raising total long term funds of Rs. 500 lakh, to meet its requirements, as under:

- Equity capital Rs.200 lakh
- Debt capital Rs. 300 lakh

This gives a capital structure of 60% debt capital (300/500) and 40% equity capital (200/500)



Leverage/Gearing

- If the ratio of debt capital is very high, it is called Highly Leveraged or highly geared firm.
- If the ratio of debt capital is low; it is called a Low Leveraged or low geared firm.

Examples of debt capital are:

- Term loans.
- Debentures,
- Corporate deposits,
- Fixed deposits from public, etc.

Examples of equity capital include:

- Partners' capital in a firm,
- Equity and preference shares issued by a company,
- Retained (undistributed) profits.

Factors Influencing Decision On Capital Structure Of A Firm

The decision on proportion of debt and equity, as also the instruments through which these two are to be sourced, **is influenced by various factors, the main of which are as under:**

Norms prevailing in the financial system:

- The banks and financial which are the prominent source of debt financing, have their lending policies and norms .
- They will not permit a borrowing firm to violate the prescribed debt equity norms.
- For example, if a company applies for a term loan to set up cement factory with 90% debt and 10% equity, the Indian lender will not approve it and ask the company to improve the structure of the project (to say 60% debt and 40% equity).
- In capital market also, the investors will not subscribe to the debt or equity instruments of a company if the debt equity proportion is beyond a reasonable point.
- Rating agencies also take note of the proportion of debt and equity, in their analysis, while assigning a rating to any financial instrument of the company

Degree of control:

- If the promoters of a company, do not want to dilute their voting rights beyond a point, they will not issue further equity capital to outsiders.
- In such a case, they will prefer additional funds by issuing debt instruments like debentures.



Trading on Equity

- This concept is based on the premise that the firm will earn more profit by deploying funds than the cost of those funds.
- For example, if the cost of borrowing Rs. 1 crore is Rs. 12 lakh in a year, the firm will earn Rs. 15 lakh by investing 1 crore during the year. The surplus of Rs. 3 lakh will be additional profit for the owner over and above the profit earned by investing the capital which they have brought in the firm.
- Thus, more the debt taken by a firm, more will be the profit on each rupee of the equity capital. Trading on equity means taking advantage of equity capital to borrow funds on reasonable basis.

Cost of Debt

- Debt is like a double edged sword.
- Companies want to take advantage of the fact that interest paid on debt is tax-deductible. But, a high proportion of debt results in increased return on each unit of equity capital only when business conditions are good.
- Adverse business conditions, over a prolonged period of time, result in debt cost affecting the viability and ultimately the solvency of the firm.

Size of the firm and its business plans

- The capital structure of a firm also depends on the size of the firm, its business model and market practices also.
- A firm with little intention of future expansion, may not keep a high equity capital base and may prefer higher proportion of debt because the debt is easier to be repaid.
- Reduction in equity capital is more difficult as share buy-back is subject to strict regulatory compliance and is a slow process.

Theories/Approaches On Capital Structuring

There are many theories/approaches which establish the relationship between financial leverage, weighted average cost of capital and the total value of the firm.

- **Net Income Approach**
- **Net Operating Income Approach and**
- **Traditional Position**

Net Income Approach

- Net Income Approach was put forth by David Durand.
- This approach assumes that the cost of debt and the cost of equity remain same irrespective of the proportion of debt and equity.
- As the cost of debt < the cost of equity, the overall cost of capital (WACC) can be decreased through higher debt proportion, thus increasing the value of the firm



Net Operating Income Approach (NOI)

- Net Operating Income Approach, developed by David Durand, assumes that the WACC or the value of a firm remains unaffected by the change of debt proportion in the capital structure.
- According to this approach, the benefit that a firm derives by debt is negated by the simultaneous increase in the required rate of return by the equity shareholders as the increased debt increases the risk perception of the firm, mainly bankruptcy risk.
- According to this approach, the market value is dependent on the operating income and the business risks of the firm.
- Both these factors are not impacted by the financial leverage.
- Financial leverage does not impact the operating income of the firm. Therefore, change in proportion of debt and equity does not make any change in the value of the firm.

Traditional Position

- The traditional position takes into account a different but more realistic approach towards cost of debt capital and cost of equity capital. According to this approach, when the proportion of debt capital increases in the capital structure of a firm, the cost of debt will start increasing beyond a point.
- This is because the creditors will be wary of higher risk due to enhanced leverage of the firm.
- This theory also assumes that the cost of equity capital also increases with increasing leverage.
- It remains constant up to a certain level of leverage, gradually increases thereafter and beyond a point, shows sharp increase.
- Due to this type of relationship between leverage and costs of debt and equity capitals, as the leverage of a firm increases, WACC may show decline up to a point, remain constant up to another point and increase thereafter

Assumptions in the Approaches on Capital Structuring

- Both Net Income and Net Operating Income approaches assume that the increase in debt will not affect the risk perception of the creditors and the rate of interest (cost) of debt will not change with leverage. However, the traditional approach assumed otherwise
- All firms distribute the entire profit to the equity holders.
- For the sake of simplicity, total capital is assumed to be comprising of only debt capital and equity capital.
- There is no income tax, individual as well as on the firm.



- The business conditions will remain same so that the operating profit is not changed.
- There is no transaction cost and the firm can change its capital structure whenever it wants so.
- There are no redeemable sources in the capital composition of the firm and will continue for long time.
- Capital market is perfect and all investors are rational.

Taxation & Capital Structure

- When determining a firm's capital structure, taxation must be taken into consideration.
- As we have discussed earlier, Earnings Before Interest and Tax (EBIT) of a firm will not be affected by the capital structure of the firm.
- If a firm has EBIT of Rs. 100 lakh with 100% debt and 0% equity, it will have the same EBIT of Rs. 1 lakh with capital structure of 0% debt and 100% equity.
- What will change is the net profit of the firm i.e. the profit after paying interest and tax.

Illustration:

Firm ABC, having total capital of Rs. 2 lakh, has EBIT of Rs. 1 lakh for the year. Income tax for the firm (Corporate tax) is at 25%. Rate of interest on debt is 12% p.a.

Let us consider the following 3 scenario:

- Scenario A: Debt 100%, Equity capital 0%
- Scenario B: Debt 50%, Equity capital 50%
- Scenario C: Debt 0%, Equity capital 100%

Particulars	Scenario A	Scenario B	Scenario C
EBIT	1,00,000	1,00,000	1,00,000
Debt	2,00,000	1,00,000	0
Equity Capital	0	1,00,000	2,00,000
Interest@12%	24,000	12,000	0
Profit before Tax	76,000	88,000	1,00,000
Tax @ 25%	19,000	22,000	25,000
Profit after Tax (income on equity capital)	57,000	66,000	75,000
Total income on both debt and equity capital	81,000	78,000	75,000

It can be observed from the above table that the combined income on debt and equity capital increases as the leverage of the firm increases.

This is because of 100% tax exemption provided under the IT Rules on interest paid on debt. So, should the firms go for more debt capital in comparison to the equity capital? The answer is not so simple. We have discussed earlier the perils of disproportionately



high debt for the firm, including the risk of bankruptcy. Also, as the leverage increases, the investors will have a higher risk perception of the firm and the cost of debt and equity capital may not remain same, as assumed in above.

Concept Of Cost Of Capital

- The capital of a firm represents its long term sources of funds, shown in the balance sheet as liabilities. It consists of both debt capital and the equity capital.
- The common perception is that the equity capital of a firm does not involve any cost as it is under no legal obligation to pay to the equity holders. Also, it can be argued that the equity capital includes retained profits, which are earned by the firm and so no cost is involved in using such funds.
- But, let us think from the point of view of equity holders. They have taken more risk by investing in the firm compared to any other investor. The debt capital investors are assured of a fixed return irrespective of whether the firm earns profits or not. They have legal rights to recover their money from the assets of the firm. The preference share-holders also get an assured return on their investment as also preference over the equity share-holders in case of liquidation of the firm.
- When providers of equity capital are taking maximum amount of risk and also foregoing the opportunity cost of their capital, they expect that the firm will earn for them more than what other investors are getting. If the firm fails to do so, the equity capital investors may like to put their money in other investment avenues.
- That is why it is said that the cost of equity capital is more than the prevailing market cost of preference and debt capital.
- Whereas, calculating the cost of preference and debt capital is comparatively simpler, arriving at the cost of equity capital is often a difficult exercise as the risk premium expected by equity capital investors depends on the perception of the investors, to a considerable **extent**.
- Why it is important to know the correct cost of capital of the firm?
- It is important because it provides a benchmark above which the firm should earn from its business.
- For example, if the firm is appraising an investment proposal on the premise that the cost equity capital is zero, it may approve a project which gives a low rate of return.
- The cost of capital should correctly represent the opportunity cost of the various components of capital structure of the firm to arrive at the correct benchmark for the firm to evaluate investment proposals.

Cost Of Debt Capital



- If the firm raises a term loan from a bank or a financial institution, the rate of interest is transparently known.
- Term loans are not traded in the secondary market and the bank has already fulfilled its expectations of returns on its funds by quoting the interest rate on the term loan.
- Therefore, no calculation is involved in arriving at the cost of this and the rate of interest charged by the bank is taken as the cost.
- **PROBLEM:** In case of bonds and debentures.
- But what we are talking here is the rate expected by the investors from these debentures in the secondary market.
- That rate will depend on the coupon rate as also investors' perception of firm's risk profile and prevailing market conditions.
- The return on a bond/ debenture, purchased by an investor in the **secondary market, is equal to Yield to Maturity (YTM) of that bond/debenture,**
- **The formula for which is:** The computation of YTM by this formula involves trial and error.

The approximate YTM can be calculated by using the formula:

$$YTM = \{ \text{Annual interest payment} + (M - P)/n \} / (0.6 \times P + 0.4 \times M)$$

where M is the Maturity value,

P is the present market value and

n is the number of years left to maturity.

Illustration:

A firm's debentures with face value of Rs.100 and coupon of 10% p.a. are having a current market price of Rs.90. The number of years left to maturity are 4 years. What is the cost of debt capital for the firm?

$$YTM = \{ \text{Annual interest payment} + (M - P)/n \} / (0.6 \times P + 0.4 \times M)$$

$$YTM = \{ 10 + (100 - 90)/4 \} / (0.6 \times 90 + 0.4 \times 100)$$

$$= (10 + 2.5) / (54 + 40) = 12.5 / 94$$

$$= 13.30\%$$

Cost Of Preference Capital

- Preference capital carries a fixed rate of interest (called dividend), like debentures but has higher risk perception as it comes after secured creditors in receiving money in case of liquidation of the firm.
- The interest paid is also not tax deductible.



As in the case of debentures, the approximate cost of preference capital (YTM) can be calculated by using the same formula:

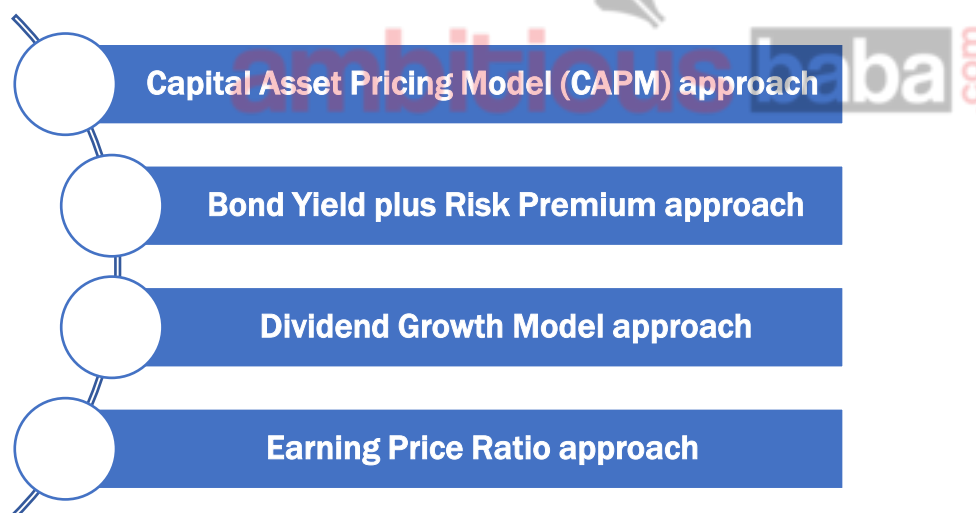
- $YTM = \{ \text{Annual interest payment} + (M - P)/n \} / (0.6 \times P + 0.4 \times M)$
- where M is the Maturity value,
- P is the present market value and
- n is the number of years left to maturity.

Here the underlying assumption is that the firm will pay the dividends every year and the preference shares will be redeemed on the due date.

Cost Of Equity Capital

- An operating firm can get additional equity capital through internal accruals and/or through issue of fresh equity.
- Issue of additional equity capital involves a floatation cost which may be low in case of a rights issue and high in case of a public issue of equity shares.
- For the sake of simplicity, here we will assume the floatation cost to be 0 which means that the cost of equity capital is same in both the cases of retained earnings and additional issue of equity shares.
- As a company has no commitment to pay any assured dividend every year, the estimation of cost of equity capital becomes difficult.

There are many approaches used for this estimation. Some of the widely used methods are:



Capital Asset Pricing Modelling (CAPM) approach

- According to this approach, the required rate of return on the equity of a particular company depends on three factors viz.
 - ❑ risk free rate of return,



- ❑ Beta of a company's share price
- ❑ the prevailing expected return on a portfolio of equity shares, in the capital market.
- The beta is based on the changes in the return on share of the company vis-à-vis the changes in the return on market portfolio.
- Higher beta denotes higher sensitivity of return on company's share. Market portfolio denotes a mix of representative basket of shares of different companies, widely traded in the capital market.

The formula used is:

Required rate of return = Risk free return + Beta (Expected return on market portfolio - Risk free return)

$$R_a = R_{rf} + \beta_a \times (R_m - R_{rf})$$

where: R_a = Expected return on a security

R_{rf} = Risk-free rate

R_m = Expected return of the market

β_a = The beta of the security ($R_m - R_{rf}$) = Equity market premium

Illustration

If the Risk free return is 12% p.a. and the expected return on market portfolio is 16%, what will be the required rate of return on a company's equity capital which has a beta of 1.50?

$$\text{the required rate} = 12 + 1.50 (16 - 12) = 12 + 6 = 18\%$$

Bond Yield plus Risk Premium approach

- Under this approach, an equity risk premium is added to the yield on long term bonds of the firm.
- While the yield on long term bonds of the firm are known in the market, decision on equity risk premium is a matter of individual investor perception.

Illustration

If the yield on long term bonds of the firm is 12% p.a. and the equity risk premium is 4%, what will be the required rate of return on firm's equity capital?

$$\text{The required rate} = 12 + 4 = 16$$

Dividend Growth Model approach

- This approach assumes that the



- current market price of firm's equity = Present value of all the dividends expected to be paid by the firm in future, discounted at the **required rate of return**.
- This approach assumes that there will be a steady growth in dividend paid by the firm, every year.

The formula, with this assumption is as under:

- Present market value = Dividend in first year / (required rate of return – growth rate per year)
- Required rate of return = (present market value / Dividend in first year) + growth rate per year

Illustration

If the present market value of Rs.10 face value, equity shares of the firm is Rs. 100, dividend expected in the first year is 10%. and the expected growth rate in dividend is 4% every year, what will be the required rate of return on firm's equity capital?

The required rate = $(100/10) + 4 = 14\%$

Earning Price Ratio approach

Under this approach, the required rate of return is calculated as under:

Required rate of return = Expected earnings per share for the next year / Present market price of share

Illustration

If the present market value of equity shares of the firm is Rs. 100 and the expected earnings per share for the next year is Rs. 15. what will be the required rate?

$RRR = 15/100 = 0.15 = 15\%$

Weighted Average Cost Of Capital (WACC)

- Once we have estimated the cost of each component of capital of a firm, the WACC is arrived at by multiplying the proportion of each component with its cost and adding them.

Illustration

The capital structure of a firm is as under: Equity capital 40% Preference capital 10% Debt capital 50%

The cost of each is estimated as under: Equity capital 20% Preference capital 15% Debt capital 10%

$WACC = (20 \times 0.4 + 15 \times 0.1 + 10 \times 0.5) = 8 + 1.5 + 5 = 14.5\%$

Factors Affecting The WACC



The factors affecting the Weighted Average Cost of Capital of a firm can be classified under 2 categories,

Internal factors and the external factors.

❑ **Internal factors:**

The internal factors affecting the Weighted Average Cost of Capital are:

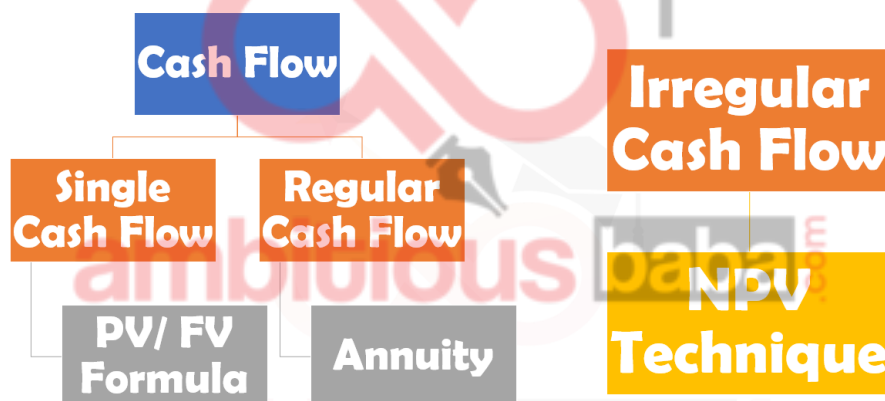
- ✓ Capital structure policy
- ✓ Capital investment policy
- ✓ Dividend policy

❑ **External factors:**

The external factors affecting the Weighted Average Cost of Capital are:

- ✓ Prevailing interest rates in the market
- ✓ Risk perception and market risk premium
- ✓ Rates of corporate and personal taxes

JAIIB Paper 3 (AFM) Module C Unit 7 - Capital Investment Decisions/Term Loans



Year	Cash Flow	Year	Cash Flow
1	10000	1	10000
2	10000	2	15000
3	10000	3	12000
4	10000	4	8000
5	10000	5	15000



Discounted cash flow Techniques for Investment Appraisal

This chapter sets out two main discounting techniques of investment appraisal namely the net present value (NPV) method and the internal rate of return (IRR) methods. Two main assumptions that are made in discussing the two techniques, are as follows:

- That the sums of moneys, resulting from an investment, that accrue in future, are known with certainty.
- That there is no inflation.

Net present value

NPV method involves comparing the present value of the future cash flows of an investment opportunity with the cash outlay that is required to finance the opportunity. In this way, we determine whether the investment opportunity provides a surplus, when the cash flows are measured in present value terms.

The stages involved in using the NPV method are as follows:

- Estimate all future net cash flows (revenue minus cost) associated with an investment opportunity.
- Convert these net cash flow figures to their present value equivalents by discounting at the appropriate discount rate;
- Add all the present value figures of future cash flows;
- Subtract from this value, the initial cost of investment

$$NPV = -C_0 + \frac{C_1}{1+r} + \frac{C_2}{(1+r)^2} + \dots + \frac{C_T}{(1+r)^T}$$

$-C_0 = \text{Initial Investment}$

$C = \text{Cash Flow}$

$r = \text{Discount Rate}$

$T = \text{Time}$

Net Present Value (NPV) is a formula used to determine the present value of an investment by the discounted sum of all cash flows received from the project. The formula for the discounted sum of all cash flows can be rewritten as

$$NPV = \sum_{i=1}^n \frac{\text{Cash Flow}_i}{(1+r)^i} - \text{Initial Investment}$$



- **Positive NPV:** In this situation, the present value of cash inflows is greater than the present value of cash outflows. This is an ideal situation for investment
- **Negative NPV:** In this situation, the present value of cash inflows is less than the present value of cash outflows. This is not an ideal situation and any project with this NPV should not be accepted.
- **Zero NPV:** In this situation, the present value of cash inflows equals the present value of cash outflows. You may or may not accept the project.

Question: An Investor invested Rs. 8 lac in a project that gives profit of Rs.2 lakh in the 1st year , Rs. 2.60 lac in 2nd year & Rs. 4 lac in the 3rd year. At 10% discount rate, what is NPV?

Year	Cash Outflow Total = 8 lakh	Cash Inflow	Discount rate	PV
1		2 lakh	0.909	181000
2		2.60 lakh	0.826	214760
3		4 lakh	0.751	300400
Total				696960

Question: ABC Co Ltd. Is considering a new piece of machinery costing Rs. 8000 and it will produce a cash flow of Rs.1200 each year for next 12 years. What is NPV if discount rate is 10%

$$PV = A/r [1 - 1/(1+r)^n]$$

$$= 1200/.1 [1 - 1/(1.1)^{12}]$$

$$= 8176$$

$$NPV = 8176 - 8000$$



= 176

Internal Rate of Return (IRR)

- The internal rate of return (IRR) is a discounting cash flow technique which gives a rate of return earned by a project.
- The internal rate of return is the discounting rate where the total of initial cash outlay and discounted cash inflows are equal to zero. In other words, it is the discounting rate at which the net present value (NPV) is equal to zero.

How is the Internal Rate of Return computed?

For the computation of the internal rate of return, we use the same formula as NPV. To derive the IRR, an analyst has to rely on trial and error method and cannot use analytical methods. With automation, various software (like Microsoft Excel) is also available to calculate IRR. In Excel, there is a financial function that uses cash flows at regular intervals for calculation.

$$IRR = \frac{\text{Cash flows}}{(1+r)^i} - \text{Initial Investment}$$

Where:

Cash flows = Cash flows in the time period

r = Discount rate

i = Time period

The rate at which the cost of investment and the present value of future cash flows match will be considered as the ideal rate of return. A project that can achieve this is a profitable project. In other words, at this rate the cash outflows and the present value of inflows are equal, making the project attractive.

- For independent investment opportunities,
- if the IRR > cost of capital, then the project should be undertaken, since a rate of return is being earned by the project that is greater than the amount that has to be paid out to the providers of capital. Thus, the project is earning a surplus over and above the cost of funds and thus shareholders' wealth will be increased.
- If the IRR < cost of capital, then the project, should not be undertaken, as going ahead with the project will have the result of reducing the shareholders' wealth.
- For mutually exclusive investment opportunities, the IRR decision rule involves undertaking that investment that has the highest IRR, provided that the IRR is greater than the cost of capital.



- According to number of studies, IRR is more widely used than NPV. The main reason for this appears to be that people in business are more used to thinking in terms of rates of return than in terms of NPVs or surpluses.
- $IRR = R1 + NPV / (NPV1 - NPV2) * (R2 - R1)$
- $R1$ = Lower discount rate chosen
- $R2$ = Higher discount rate chosen

Question: The NPV of a project is Rs. 2 lac at 10% discount rate & (-) .5 lac at 11% discount rate. Calculate IRR of the project

$$= 10 + 2 / [2 - (-) .5] * (11 - 10)$$

$$= 10 + .8 * 1$$

$$= 10.8 = 11\%$$

Non-Discounted Cash Flow Methods For Investment Appraisal

Payback Period Method

- All investment appraisal techniques are seeking to identify whether the cash flows, resulting from an investment, are sufficient to make the investment worthwhile.
- The payback method adopts the most straightforward approach to this problem.
- It simply seeks to measure the length of time that will be taken before the receipts from the investment are sufficient to payback the cost of the investment.
- The receipts from the investment are measured as the net cash flows resulting from the project being undertaken (i.e., the difference between the total amount of cash receipts and total amount of cash outlays in each period).

To illustrate the use of the payback method, consider two potential investment projects that each cost 50,000 and those that have net cash flows as follows:



Year	Project A Cash Flows	Project B Cash Flows
1	7,500	10,000
2	20,000	10,000
3	15,000	10,000
4	7,500	10,000
5	3,000	10,000
6	0	10,000
7	0	10,000
8	0	10,000
9	0	10,000
10	0	10,000

- Examination of the net cash flows of the two projects tells us that the initial outlays of 50,000 is recouped in four years for the project A and in five years for the project B,
- Thus, the project A has a payback period of 4 years and the project B has a payback period of five years.
- To use payback method, it is necessary first to establish a payback period within which all acceptable projects must recoup the outlay of the investment.

For example, a business, with a considerable potential cash flow problems and severe capital rationing, may opt for a short payback period, say 3 years. In this case, neither the project A nor B, would be acceptable.

- In contrast, if a 4 year payback period were chosen, then the project A would be acceptable, but project B would not be, while a 5 year payback
- Would make both the projects acceptable to the company.

Payback method has several shortcomings that make its use highly undesirable

- ✓ It takes no account of the time value of money
- ✓ The choice of the payback period is arbitrary
- ✓ With the payback, the only cash flows to be considered are those that fall in the payback period
- ✓ Using payback may well lead to an increase in risk, since by demanding rapid payback, companies are building in a bias towards the acceptance of risky projects.

Question: A firm requires an initially cash outflow of Rs.20000 & cash inflow for 5 years are Rs.5000, 7000, 6000, 6000, 8000. Calculate Payback period?



Year	Cash Inflow	
1	5000	5000
2	7000	12000
3	6000	18000
4	6000	24000
5	8000	32000

In 3 years recover = 18000

Next 2000 = $2000/6000 = 1/3$

= 3.33 years

Question: A project cost is Rs. 190000 and its scrap value is Rs.10000. It yield an annual cash flow of Rs. 20000 for 10 years. Calculate its payback period?

Project Cost – Scrap Value / Annual Cash Flow

= $190000 - 10000 / 20000$

= 9 years

Question: XYZ is planning to start a project which requires the total outlay of Rs.15 lakh to purchase machinery having a life of 10 years and salvage value is 100000

Year ending profit before dep & Tax is 2 lakh

Tax rate = 30%

Calculate Annual cash flow and Payback period?

Solution

Cash Outflow = 15 lakh – 1 lakh = 14 lakh

PBD&T = 2 lakh

(-) Dep = $15 \text{ lakh} - 1 \text{ lakh} / 10 = 1.4 \text{ lakh}$

PBT = 60000

(-)Tax = 18000

PAT = 42000

Annual Cash Inflow = 42000 + 1.4 lakh = 1.82 lakh



Accounting Rate of Return Method (ARR)

Accounting Rate of Return (ARR): The accounting rate of return (also known as Average Rate of Return or Simple Rate of Return) measures the profitability of an investment by using the accounting profit given in the financial statements.

It is computed as under:

ARR = Average profit after tax / Average value of investment

- Average accounting profit is the arithmetic mean of accounting income expected to be earned during each year of the project's life time.
- It should be noted that the accounting income is arrived after providing for depreciation whereas in other methods like NPV or IRR, we take the cash flows of the project into consideration.
- Average investment may be calculated as the sum of the beginning and ending book value of the investment divided by 2 (the underlying assumption being that the book value is getting reduced under the straight line method of depreciation).

For example: If investment in a project is Rs. 10 lac, the life of the project is 6 years and the scrap value is Rs. 1 lac, the average investment will be Rs. (10 lac- 1 lac) divided by 2, i.e. Rs. 4.5 lac. In this example, if the scrap value is estimated at Rs. 0, the **average investment will be Rs. 5 lac.**

- Another variation of ARR formula uses initial investment instead of average investment.
- Under this method, a project will be accepted if its Accounting Rate of Return is higher than the minimum rate of return set by the management.
- This method can also be used to rank various projects on the basis of their ARR. The project having a higher ARR will be ranked higher than the project having a lower ARR.

Advantages:

- ☐ Like Payback period method, this method is simple to understand and involves simple calculations.
- ☐ It considers the entire stream of income over the life of the project for evaluating the profitability of the project.

Question: A company is planning to start a business which requires Rs. 100000 to purchase of machinery having a life of 5 years.

Next 5 years expected profit before dep & tax = 100000, 50000, 40000, 30000, 25000. Income tax @30%. Calculate ARR?



Year	PBD&T	Dep	PBT	Tax	PAT
1	100000	20000	80000	24000	56000
2	50000	20000	30000	9000	21000
3	40000	20000	20000	6000	14000
4	30000	20000	10000	3000	7000
5	25000	20000	50000	1500	3500
Total					101500

$$= (101500/5) / (100000/2) * 100$$

$$= 40.6\%$$

Important Points About Term Loans

- Banks provide term loans normally for acquiring the fixed assets like land, building, plant and machinery, infrastructure etc., (personal loans, consumption loans, educational loans, etc., being exceptions) while the working capital loans are provided for sustaining the working capital, i.e. current assets level.
- In exceptional cases, banks provide term loans for current assets also. This is called Working Capital Term Loan (WCTL). As we are aware, the business enterprise is supposed to bring a part of its funds required to maintain the desired level of current assets from its long term sources (capital or term liabilities), called NWC, so that the stipulated current ratio can be maintained. If the enterprise is not able to bring in the required amount of NWC, it will feel liquidity crunch and business operations will be affected. In such cases, banks may provide WCTL.
- Working capital loans are normally sanctioned for one year but are payable on demand. Term loans are payable as per the agreed repayment schedule, which is stipulated in the terms of the sanction. Therefore, for the purpose of matching assets and liabilities of the bank, term loans are considered long term assets while working capital loans are considered as short term assets.
- As a term loan is expected to be repaid out of the future cash flows of the borrower, the DSCR assumes great importance while considering term loans, while for working capital loans, the liquidity ratios assume greater importance.
- There is no uniform repayment schedule for all term loans. Each term loan has its own peculiar repayment schedule depending upon the cash surplus of the borrower. Thus, in case of a salaried person, where income level is constant, the repayment can be through EMI system and in case of a farmer, the repayment of principal and interest may coincide with the cropping pattern.
- In case of industrial enterprises, normally, banks stipulate monthly/quarterly repayment of principal along with all the accumulated interest.

Project Appraisal

Project appraisal can be broadly taken in the following steps:



- Appraisal of Managerial Aspects
- Technical Appraisal
- Economic Appraisal

Appraisal of Managerial Aspects:

The appraisal of managerial aspects involves seeking the answer to the following questions:

- ✓ What are the credentials of the promoters?
- ✓ What is the financial stake of promoters in the project? Can they bring additional funds in case of contingencies arising out of delay in project implementation and changes in market conditions?
- ✓ What is the form of business organisation? Who are the key persons to be appointed to run the business?

Technical Appraisal:

The technical feasibility of a project involves the following aspects:

- ✓ location
- ✓ Products to be manufactured, production process
- ✓ Availability of infrastructure
- ✓ Provider of technology
- ✓ Details of proposed construction
- ✓ Contractor for project execution
- ✓ Waste disposal and pollution control
- ✓ Availability of raw materials
- ✓ Marketing arrangements

Economic Appraisal:

The economic/financial feasibility of a project involves the following aspects.

- ✓ **Return on Investment:** The usual methods used are the NPV, IRR, payback period, cost benefit ratio, accounting rate of return, etc
- ✓ **Break-even Analysis:** A project with a high break-even point is considered riskier compared to the one with lower break-even point.
- ✓ **Sensitivity Analysis:** As market conditions are uncertain, a small change in the prices of raw materials or finished goods may have a drastic impact on the viability of a project. Sensitivity analysis examines such impact.

Infrastructure Projects

The sectors included in the definition of “**Infrastructure**” are as per the Gazette Notifications issued by the **Ministry of Finance, Government of India, from time to time.**

Presently, the following infrastructure sectors qualify under ‘infrastructure lending’:



- **Transport:** This includes Roads and bridges, Ports, Inland Waterways, Airport, Railway Track, tunnels, viaducts, bridges and Urban Public Transport (except rolling stock in case of urban road transport).
- **Energy:** This includes Electricity Generation, Electricity Transmission, Electricity Distribution, Oil pipelines, Oil/Gas/Liquefied Natural Gas (LNG) storage facility and Gas pipelines.
- **Water & Sanitation:** This includes Solid Waste Management, Water supply pipelines, Water treatment plants, Sewage collection, treatment and disposal system, Irrigation (dams, channels, embankments etc.), Storm Water Drainage System and Slurry Pipelines.
- **Communication:** This includes Telecommunication (Fixed network), Telecommunication towers, Telecommunication & Telecom Services.
- **Social and Commercial Infrastructure:** This includes Education Institutions (capital stock), Hospitals (capital stock), Common infrastructure for industrial parks, SEZ, tourism facilities and agriculture markets, Fertilizer (Capital investment), Post-harvest storage infrastructure for agriculture and horticultural produce including cold storage, Terminal markets, Soil-testing laboratories, Cold Chain, Hotels and Convention Centers with certain restrictions regarding project cost.

Disbursal Of Term Loans

- If the term loan is to be disbursed in one go, e.g., purchase of a machine/ready house, the borrower is asked to deposit his margin with the bank, his loan account is debited by the amount of the loan and the entire amount to be paid to the buyer, is remitted to him by the bank.
- If any amount has already been paid to the buyer by the customer, satisfactory proof, like details of bank account etc. of this payment is obtained, and this is considered to be a part of his contribution (margin).
- In exceptional cases, like personal loans or consumption loans, the amount may be credited to the account of the customer with the bank.
- In cases where the execution of the project is spread over a period of time, the disbursement is normally related to the progress of the project.

RBI guidelines in respect of disbursement of project loans are as under:

At the time of financing projects banks generally adopt one of the following methodologies as far as determining the level of promoters' equity is concerned.

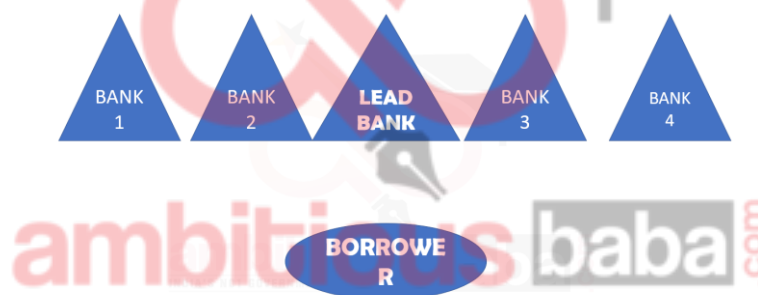
- ✓ Promoters bring their entire contribution upfront before the bank starts disbursing its commitment.
- ✓ Promoters bring certain percentage of their equity (40% – 50%) upfront and balance is brought in stages.
- ✓ Promoters agree, ab initio, that they will bring in equity funds proportionately as the banks finance the debt portion. RBI has advised the banks to have a clear policy regarding the Debt Equity Ratio (DER) and to ensure that the infusion of



equity/fund by promoters should be such that the stipulated level of DER is maintained at all times.

Syndication Of Loans

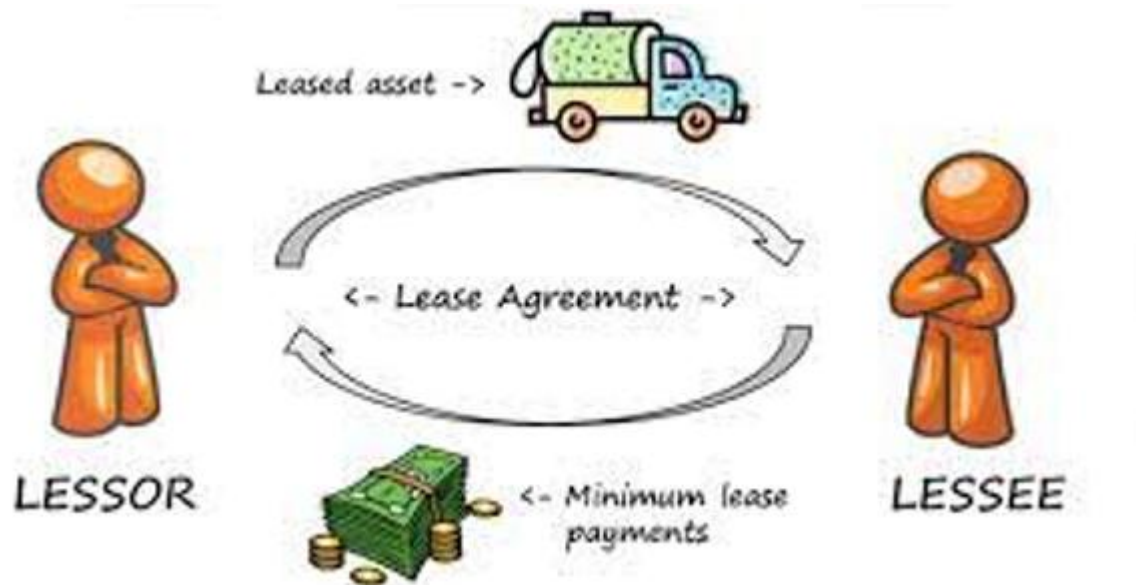
- The term '**Syndication**' is normally used for sharing a long-term loan to a borrower by two or more banks.
- This is a way of sharing the risk, associated with lending to that borrower, by the banks and is generally used for large loans.
- The borrower, intending to avail the desired amount of loan, gives a mandate to one bank (called Lead bank) to arrange for sanctions for the total amount, on its behalf.
- The lead bank approaches various banks with the details.
- These banks appraise the proposal as per their policies and risk appetite and take the decision.
- The lead bank does the liaison work and common terms and conditions of sanction may be agreed in a meeting of participating banks, arranged by the lead bank.
- Normally, the lead bank charges '**Syndication fee**' from the borrower.



JAIIB Paper 3 (AFM) Module C Unit 8- Equipment Leasing/ Lease Financing

Meaning Of Lease

- A lease is a contract under which one party agrees to allow use of its property to another party, for a specific period of time, on agreed payment terms. The party which owns the property is called Lessor and the party which gets right to use the asset, is called Lessee.
- The agreed payment for the right to use the property is called the lease rental. The property to be leased may be land, building, animal, industrial equipment or any other fixed or movable asset



Features Of A Lease

- **Legal:** It is a legal, binding contract containing the terms on which one party agrees to allow use of its property by another party.
- **Guarantees:** It guarantees the lessee use of the property and guarantees the lessor regular payments for a specified period, in exchange for allowing use of its property.
- A lease can be residential lease, which is normally same for all tenants, or commercial lease, which is often of various types.
- Breaking a lease contract involves legal consequences

Types Of Leases

As per Accounting Standard Ind AS 116, "A lessor shall classify each of its leases as either an operating lease or a finance lease".



Leveraged lease



TO PURCHASE AN ASSET

May Borrow all or majority of money

Owner

- 3 parties: the lessor, lessee, and the lender.
- Out of each lease payment from the lessee, one portion is passed on to the lender for debt servicing and the other portion is received by the lessor. The leased asset is charged to the lender as also the lease rentals payable by the lessee.

☐ **Domestic lease,**

- All parties involved in lease transaction, are domiciled in India.
- If any party is not domiciled in India, it is called an international lease or cross-border lease.
- ☐ An international lease may have implications like country risk and currency risk.
- ☐ A cancellable lease is one that can be cancelled as per the terms contained in the lease agreement.
- ☐ A non-cancellable lease is one that is cancellable only upon the occurrence of some remote contingency or, with the permission of the lessor or, if the lessee enters into a new lease for the same or an equivalent asset with the same lessor.
- ☐ A Wet lease is one in which the lessor operates the equipment and is responsible for its insurance, maintenance etc
- ☐ In a Dry lease, all these functions are responsibilities of the lessee.
- ☐ Under a Sale and Lease-back transaction, the asset owned by one party is sold to the other party and simultaneously taken back on lease. So, practically, the possession does not change, only the ownership is transferred. This method is used to unlock value of assets of a firm. Sale and leaseback transactions came under a lot of criticism during 1990s, when transactions in junk assets were made at very high values and labeled as sale and leaseback transactions.

Finance Lease

- It is also known as capital lease or sale lease.
- lessor and lessee agree that the ownership of the leased asset will be transferred to the lessee on completion of the lease period.
- It is a method of providing finance where the lessor buys the asset, not for its own use but for use by the lessee, for an agreed period.



- Practically results in substantially transferring the risks and rewards of ownership of the asset to the lessee.
- Lessee own the leased asset for a major part of its economic life, without being its legal owner.



The accounting standard, Ind AS 116, defines a finance lease as: “A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership of an underlying asset”.

Illustration The situations under which a lease is normally classified as a finance lease are:

- The ownership of the asset is transferred to the lessee by the end of the lease term.
- The lessee has the option to purchase the asset at a price which is substantially lower than the fair value, and it is reasonably certain that the option will be exercised.
- The lease term is for the major part of the economic life of the asset.
- The present value of the minimum lease payments at the inception of the lease, amounts to substantial fair value of the leased asset, or more.
- The leased asset is of a such a specialised nature that it can be used only the lessee.
- The lessee has right to cancel the lease and the lessor's losses due to the cancellation, are borne by the lessee.
- The lessee has the right to continue the lease for a secondary period at a rent which is substantially lower than market rent.

Operating Lease

- **The accounting standard, Ind AS 116, defines an operating lease as:** “A lease is classified as an operating lease if it does not transfer substantially all the risks and rewards incidental to ownership of an underlying asset”.
- Lease classification is made at the inception date and is reassessed only if there is a lease modification.
- An operating lease is classified as wet lease if the lessor provides the know-how and related services for operating the asset and takes care of its insurance, maintenance etc.



- Otherwise, it is classified as dry lease

Illustration

- The lease term is substantially less than the economic life of the asset.
- The lessee has right to cancel the lease without paying any substantial penalties.

Rationale For Leasing

The borrowing capacity is not reduced:

- Leasing is useful to a lessee in strengthening its borrowing capacity and thereby permitting the firm to raise more debt capital, given the firm's existing equity base.
- Since the obligation created under the operating lease arrangement is not reflected as debt in the balance sheet, the firm's debt equity ratio does not deteriorate.
- However, under a finance lease, the accounting standards require the firm to include the value of assets and the resulting liability in the balance sheet.
- Lenders are also aware of the implications of the lease financing making it difficult for the lessee firms to increase their borrowing power.

Availability of full finance:

- Banks and financial institutions, normally, insist on substantial margin to be brought in by the firm, for purchasing an asset.
- In leasing, there is no such need and the firm gets the asset without arranging capital for margin money.
- Therefore, a firm experiencing shortage of funds can acquire assets more quickly under leasing arrangement than in buying.

Convenience:

- Lease financing, especially the operating lease, is regarded a more convenient form of acquiring an asset compared to purchasing that asset.
- This is even more relevant if the asset is to be used for short duration compared to its useful life, because the lessee has not to go through the tedious process of buying and then selling the asset.
- Also, the time taken for acquiring an asset through lease route is normally much less compared to that under purchase by arranging a term loan or other type of debt.

Avoiding risk of obsolescence:

- Improved designs and technological advances make present equipment inefficient and expensive to operate, compared to the newly developed equipment.
- Leasing offers the advantage of passing this risk of obsolescence to the lessor.

Tax Advantage



- Lease financing is also used by many firms as a tax planning device to reduce tax liability.
- Normally, the lessee firm is benefitted if it can charge off the cost of an asset more rapidly through lease rentals than through depreciation charges.

Financial Flexibility and cash flows:

- As the firm can choose from a variety of leasing products available, it can address its needs and requirements regarding cash flows, transaction structure, cyclical fluctuations, expansion plans, profitability etc., by selecting the most suitable products.
- Leasing allows a firm to match its cash outflow on rental payments for leased equipment, with its revenue receipts, in a better way.

Less restrictive covenants:

- The restrictive covenants on a lessee are much less if an asset is acquired through lease, compared to its acquisition through other means of financing.
- For example, a term lending institution or bank may put restrictions regarding payment of dividends, future expansion, managerial appointments, personal guarantees of promoter directors etc.

Contents Of A Lease Agreement

- The lease agreement is a written agreement between the lessor and the lessee stating the terms and structure of the lease.
- All the future actions of lessor and lessee, relating to the leased asset are guided by this agreement.
- Therefore, it is very carefully drafted envisaging all the future situations. Contents of a lease agreement are different for different assets and different types of leases. A lease agreement typically contains the details relating to the following aspects:

Particulars of the Parties

In case of leveraged lease, tripartite agreement etc., third party information should also be included.

Description of the Asset:

This also includes details regarding scope and validity of manufacturer's warranty.

Equipment Delivery and Installation:

The agreement should clearly mention about the delivery and installation of equipment at the beginning, as also the end of the lease.

Primary Period, Effective Date and Renewal:

The agreement should be specific on these aspects.



Initial/ Security Deposit, Lease Rental and Payment Terms:

This also includes interest payable on security deposit, mode and frequency of payment, rent escalation clause and penalty in case of delay in payment of lease rental.

Transferability of ownership:

The agreement should mention regarding transfer of ownership at the end of the lease period.

Repair and Alteration:

The party which will bear the cost of repair and alteration, should be specified.

Insurance/ Government Dues:

The agreement should mention about who will pay the cost of insuring the asset, as also the municipal dues, property taxes, etc.

Sub-Lease/Restricted Activities:

The activities, including sub-lease of the asset, which are not permitted by the lessee, should be specified.

Surrender/Termination of Lease Agreement:

If the asset can be surrendered during the period of the lease, the penalties payable should be specified. Also, the circumstances, under which any party can terminate the agreement, details about the notice period and compensation should be specified.

Default and arbitration:

Details of consequences of default and arbitration should be specified.

Legal Aspects Of Leasing

- **Definition:** Transfer of Property Act and Indian Registration Act, covers only the property and not equipment.
- In absence of a separate law for equipment leasing: bailment in the Indian Contract Act may be construed to be applicable to equipment leasing contracts.
- As per this Act, the obligations of the lessor and the lessee are similar to those of the bailor and the bailee, unless specified in the lease contract.

GST On Lease Transactions

As per Sec 7 of the CGST Act, 2017, the expression supply includes all forms of supply of goods or services or both such as sale, transfer, barter, exchange, licence, rental, lease or disposal made or agreed to be made for a consideration by a person in the course or furtherance of business.

From this, it is clear that the lease is covered within the meaning & scope of “supply” and it is taxable.



GST does not differentiate between a Finance lease and an Operating Lease. GST rates on lease transactions are as under:

- ✓ Nil rate on lease of industrial plots, provided by the State Government Industrial Development Corporations or Undertakings to industrial units and Leasing of Agro Machinery/ Vacant land.
- ✓ GST on Lease transactions which will be covered under the category of **“Supply of Goods” and “Supply of Services”** is chargeable at same rate as on supply of similar goods and services.

Income Tax Implications Of Lease

Income Tax rules do not differentiate between a Finance lease and an Operating Lease. Income Tax implications of a lease transaction are as under:

In a lease transaction, the lessor is eligible for depreciation on the asset, as he owns the assets. The lessee, therefore, will not be eligible to claim any depreciation.

In sale and leaseback transactions, income Tax rules permit depreciation on the sold asset's depreciated value rather than the actual value of the sales transaction.

- ✓ The entire lease rentals are taxed as income of the lessor.
- ✓ The lessee is entitled to treat the rentals as expenses.

Accounting Of Lease Transactions In Books Of Lessor

Ind AS 116 prescribes the following in respect of Accounting of Lease Transactions in Books of lessee:

For Finance leases

- ✓ **Initial recognition:** At the commencement date, a lessor shall recognise assets held under a finance lease in its balance sheet and present them as a receivable at an amount equal to the net investment in the lease.
- ✓ The lessor shall use the interest rate implicit in the lease to measure the net investment in the lease.
- ✓ Initial direct costs, other than those incurred by manufacturer or dealer lessors, are included in the initial measurement of the net investment in the lease and reduce the amount of income recognised over the lease term. The interest rate implicit in the lease is defined in such a way that the initial direct costs are included automatically in the net investment in the lease; there is no need to add them separately.
- ✓ A lessor shall recognise finance income over the lease term, based on a pattern reflecting a constant periodic rate of return on the lessor's net investment in the lease.
- ✓ The implication of Ind AS 116 is that the leased asset is not capitalised in the balance sheet of lessor, despite being its owner. It is presented as a receivable equal to the net investment in the lease, which is the present value of lease



rentals receivable from the lessee. The discount rate applied for calculating the present value is the interest rate implicit in the lease.

Illustration

ABC Ltd. purchases an equipment for Rs. 100 lakh and leases it to XYZ Ltd. for a period of 10 years. The initial cost incurred by ABC Ltd. in negotiating and arranging the lease is Rs. 6 lakh. Lease rental is Rs.18 lakh per year. The useful life of the machine is 10 years and the residual value of the equipment is nil. No initial payment is involved. The interest rate implicit in the lease is 10% p.a. How this lease will be treated in its books, by ABC Ltd.?

Answer:

The present value of the lease rentals of Rs.18 lakh per year, for 10 years is Rs. 6.145×18 = Rs. 110.61 lakh at the discount rate of 10% p.a. (by using the Annuity table, PVIFA = 6.145) Therefore, in the balance sheet of ABC Ltd, an amount of Rs. 110.61 lakh will be shown as receivables from the lease asset.

For Operating leases

- ✓ Lessors present assets, given under operating leases, in their balance sheet according to the nature of the asset.
- ✓ Initial direct costs incurred by lessors in negotiating and arranging an operating lease, are added to the carrying amount of the leased asset and recognised as an expense over the lease term on the same basis as the lease income.
- ✓ The depreciation policy for depreciable leased assets should be consistent with the lessor's normal depreciation policy for similar assets.
- ✓ Lessor should recognise lease payments from operating leases as income on either a straight-line basis or another systematic basis.
- ✓ The lessor may apply another systematic basis if that basis is more representative of the pattern in which benefit from the use of the underlying asset is diminished.

Illustration

ABC Ltd. purchases an equipment for Rs. 100 lakh and leases it to XYZ Ltd. for a period of 3 years. The initial cost incurred by ABC Ltd. in negotiating and arranging the lease is Rs. 6 lakh. Lease rental is Rs. 18 lakh per year. The useful life of the machine is 10 years and the company follows the policy of straightline method of depreciation. How this lease and rentals will be treated in its books, by ABC Ltd.?

Answer:

- The carrying cost of the equipment, in the balance sheet of ABC Ltd., will be Rs. 106 lakh (purchase cost of Rs. 100 lakh and initial cost of Rs. 6 lakh).
- The depreciation charged will be Rs. 10 lakh per year using the straight line method.



- The lease rental of Rs. 18 p.a. will be charged as expenses if straight line method of accounting for lease rentals is used.

Accounting Of Lease Transactions In Books Of Lessee

The distinction between a finance and an operating lease, as far as accounting treatment in the books of lessee is concerned, has been removed by Ind AS 116.

Ind AS 116 prescribes the following in respect of Accounting of Lease Transactions in Books of lessee:

- At the commencement date, a lessee shall recognise a right-of-use asset and a lease liability.
- At the commencement date, a lessee shall measure the right-of-use asset at cost.
- The cost of the right-of-use asset shall comprise:
 - ✓ The amount of the initial measurement of the lease liability,
 - ✓ Any lease payments made at or before the commencement date, less any lease incentives received,
 - ✓ Any initial direct costs incurred by the lessee; and,
 - ✓ An estimate of costs to be incurred by the lessee in dismantling and removing the underlying asset, restoring the site on which it is located or restoring the underlying asset to the condition required by the terms and conditions of the lease, unless those costs are incurred to produce inventories. The lessee incurs the obligation for those costs either at the commencement date or as a consequence of having used the underlying asset during a particular period.
- **Initial measurement of the lease liability, mentioned in 3 (a) above:** At the commencement date, a lessee shall measure the lease liability at the present value of the lease payments that are not paid at that date. The lease payments shall be discounted using the interest rate implicit in the lease, if that rate can be readily determined. If that rate cannot be readily determined, the lessee shall use the lessee's incremental borrowing rate.
- In the statement of profit and loss, a lessee shall present interest expense on the lease liability separately from the depreciation charge for the right-of-use asset.
- **Exemptions:** A lessee may elect not to apply the above accounting requirements to:
 - ✓ Short-term leases; and
 - ✓ leases for which the underlying asset is of low value

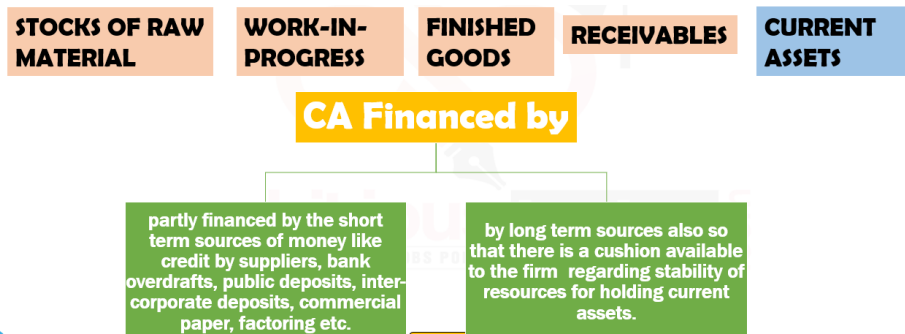
In case of opting for such exemption, the lessee shall recognise the lease payments associated with those leases as an expense on either a straight-line basis over the lease term or another systematic basis. The lessee shall apply another systematic basis if that basis is more representative of the pattern of the lessee's benefit.

JAIIB Paper 3 (AFM) Module C Unit 9 - Working Capital Management



Introduction

- The role of a financial manager does not stop with arranging long term sources of finance for creation of fixed assets to enable the firm to carry out its intended business operations.
- The money is also required for purchasing raw materials, converting them into finished goods and selling on credit to customers.



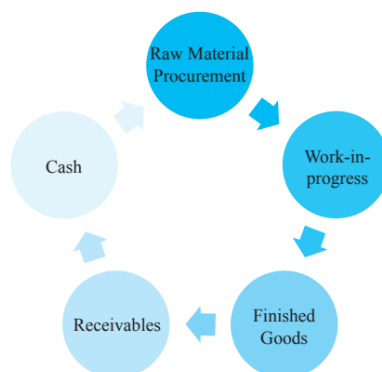
- A portion of these current assets is to be financed. Financial management of working capital involves management of both current assets and the sources to finance them.

Working Capital Cycle

The normal operations of a business enterprise consist of some or all of the actions like, purchase of raw materials, processing/conversion of raw materials into finished goods, selling these goods on cash/ credit basis, receive cash on sale or end of credit period and again purchase raw materials. This is called working capital cycle. ***The length of this cycle depends on:***

- The stocks of raw materials required to be held.
- The work in process, which in turn depends on the process involved in manufacturing/processing to convert the raw materials into finished goods.
- The credit required to be provided to the purchasers.

The longer the working capital cycle, the more is working capital requirement, i.e., the need for maintaining the current assets.



Current Assets Of A Firm



Current assets depends on various factors. The main factors that influence the need of working capital in a business are as under:

Nature of Business:

- Public utility undertakings such as electricity, water supply and railways require very little working capital finance because they sell their services on cash terms. They supply services not products, and very little funds are tied up in inventories and receivables.
- On the other hand, trading and financial firms require less investment in fixed assets but need large sums as working capital and fixed investments.

Size of the business:

- Greater the size of the business, greater is the requirement of working capital.

Production Policy:

- If the policy is to keep production steady-not geared to peak and non-peak nature of business-then there will be an accumulation of inventories in the off peak season.
- An average production level will help take care of this issue by ensuring the surplus of production in off peak season is disposed of during the peak season.

Seasonal variations:

- Generally, during the busy season, a unit will require larger working capital than in slack season.

Operating/Working capital cycle:

- It is the duration of the operating cycle that determines the requirements of working capital.
- Longer the cycle larger is the requirement of working capital.
- The cycle duration decides the carry of inventory, the amount of labour and costs, and other expenses.
- **For example**, if the firm has to import raw material, it may have to maintain a bigger stock, to take care of supply disruptions.
- Similarly, if industry practice is to provide 3 months' credit to customers, it will also have to do so.

In general, the current assets required to be held by a firm, can be classified as under:

- Cash & cash equivalents
- Inventory
- Receivables
- Other current assets

Sources Of Finance For Current Assets



The following are the main sources of finance for acquiring current assets;

- Firm's own working capital funds
- Accruals
- Trade Credit
- Working Capital Advance by Commercial Banks/ Financial Institutions
- Public Deposits
- Inter-Corporate Deposits
- Rights Debentures for Working Capital
- Commercial Paper
- Factoring
- Forfaiting

Working Capital Assessment By Banks

- First step in any method of assessment of working capital limits: Deciding on the Level of Turnover of the firm
- In case of existing enterprises, the past performance is used as a guide to make an assessment and In case of new enterprises, this is based on the production capacity, proposed market share, availability of raw materials, industry norm, etc.
- Despite analysis of all the data, accurate estimate of future turnover is often an area of disagreement between the bank and the borrower.
- Based on the projected turnover, banks adopt various methods for assessing the working capital needs of a firm

JAIIB Paper 3 (AFM) Module C Unit 10 - Derivatives

Introduction

- A derivative is a financial instrument whose value is derived from an underlying asset.
- The derivatives do not have any direct value of themselves.
- Their value is based on the expected future price movements of the underlying assets.
- Derivatives are often used as instruments to hedge risks, like fluctuations in stock, bond, commodity and index prices, changes in foreign exchange rates, interest rates, etc.
- For regulatory purposes, derivatives have been defined in the Reserve Bank of India Act, as follows: "Derivative means an instrument, to be settled at a future date, whose value is derived from change in interest rate, foreign exchange rate, credit rating or credit index, price of securities (also called "underlying"), or a combination of more than one **of them and includes interest rate swaps,**



forward rate agreements, foreign currency swaps, foreign currency-rupee swaps, foreign currency options, foreign currency-rupee options or such other instruments as may be specified by the Bank from time to time”.

Characteristics of Derivatives

A Derivative has the following 3 main characteristics:

- Their value changes in response to the change in a specified ‘underlying’ asset
- High leverage and of being complex in their pricing and trading mechanism. They require no or little initial net investment
- It is settled at a future date

Functions of Derivatives

- **Transfer of Risk:** Derivatives shift the risk from the buyer of the derivative product to the seller and as such are very effective risk management tools
- **Price Discovery:** Derivatives improve the liquidity of the underlying instrument. Derivatives perform an important economic function viz. price discovery.
- They provide better avenues for raising money.
- They contribute substantially to increasing the depth of the markets.

Users of Derivatives

The main players in a financial market include

- Hedgers,
- Speculators
- Traders.

Hedging can be done in two ways

- Fixing a price (the linear way)
- Taking an insurance (non-linear or asymmetric way).

Hedgers:

They use derivatives markets to reduce or eliminate the risk associated with price of an asset. Majority of the participants in derivatives market belongs to this category.

Speculators:

- They transact futures and options contracts to get extra leverage in betting on future movements in the price of an asset.
- They can increase both the potential gains and potential losses by usage of derivatives, in a speculative venture.

Arbitrageurs:

- Their behaviour is guided by the desire to take advantage of a discrepancy between prices of more or less the same assets or competing assets in different markets.



- If, for example, they see the futures price of an asset getting out of line with the cash price, they will take offsetting positions in the two markets to lock in a profit.

Derivatives Markets

There are two distinct groups of derivative contracts based on their market:

Over-the-counter (OTC) derivatives:

- Contracts that are traded directly between two eligible parties, with or without the use of an intermediary and without going through an exchange.
- The parameters of the contract, like the size, maturity etc., are not standardised and are mutually agreed to between the parties to a contract.

Exchange-traded derivatives:

- Derivative products that are traded on an exchange.
- The maturity and size of these products are standardized by the Exchange.

Regulators Of Derivatives

- In India, different derivatives instruments are permitted and regulated by various regulators, like Reserve Bank of India (RBI), Securities and Exchange Board of India (SEBI) and Forward Markets Commission (FMC).
- **RBI:** To regulate the interest rate derivatives, foreign currency derivatives and credit derivatives.
- **SEBI:** Regulates Stock market
- **FMC:** Regulates commodities futures market.
- Merged with SEBI with effect from September 28, 2015.

Types Of Derivatives

The derivatives broadly consist of forwards, futures, swaps and options.

Forwards

- Forwards are definitive purchases and/or sales of a currency or commodity for a future date.
- Forward contracts are OTC contracts.
- Forwards are useful in avoiding liquidity risk, price variations and avoiding losses in case of a downside.
- **Disadvantage:** Contract has to be performed in full and has attendant credit risk and market risk.
- Forwards are most useful in forex transactions where a spot transaction can be covered for a contrary move in the forward market.



Futures

- Futures contract is an agreement to buy or sell an asset for a certain price at a certain time in future.
- It is similar to forward contract.
- While a forward contract is traded over the counter,
- A futures contract is traded on an exchange.
- It has standardized contract parameters.
- Futures contracts are highly liquid and can be closed out easily.
- In India, futures contracts are available and traded on the Stock Exchanges and commodity exchanges.
- Available on currencies, bonds, interest rates, stock indices, commodities etc.
- ❖ **Pricing Futures:** The price of any futures contract has three essential components.

These are:

- The spot price of the underlying asset
- The cost of financing, storing, insuring and transporting the asset
- The income if any, earned from the asset
- Taking all these three factors into account futures price (FP) will be
- Spot price (SP) + financing and other costs – income if any. $FP = SP + \text{Costs} - \text{Income}$

Swaps

- In financial markets, the two parties to a swap transaction contract to exchange cash flows.
- A swap is a custom tailored bilateral agreement in which cash flows are determined by applying a prearranged formula on a notional principal.

Swaps are generally of the following types:

Interest Rate Swap:

- Where cash flows at a fixed rate of interest are exchanged for cash flows linked to a floating rate over a period of time. There is no exchange of principal.

Currency Swap:

- Where cash flows in one currency are exchanged for cash flows in another currency.
- The major difference between a generic interest rate swap (IRS) and a generic currency swap is that the latter includes not only the exchange of interest rate



payments but also the exchange of principal amounts both initially and on termination.

Basis Swaps:

- Where cash flows on both the legs of the swap are referenced to different floating rates

Swaps can be used:

- ✓ To create either synthetic fixed or floating rate liabilities or assets
- ✓ To hedge against adverse movements
- ✓ As an asset liability management tool
- ✓ To reduce the funding cost by exploiting the comparative advantage that each counterparty has in the fixed/floating rate markets

Options

- An option is a contract, which gives the buyer (holder) the right, but not the obligation, to buy or sell specified quantity of the underlying assets, at a specific (strike) price on or before a specified time (expiration date).
- The underlying may be physical commodities like wheat/rice/cotton/gold/oil or financial instruments like equity stocks/stock index/bonds etc.
- The price paid by the buyer to the seller to acquire the right **to buy or sell is called Premium.**
- Exercise Date is the date on which the option is actually exercised.
- In case of European Options the exercise date is same as the expiration date while in case of American Options, the options contract may be exercised any day between the purchase of the contract and its expiration date.
- An option can be a call option or a put option.
- **A call Option:** Gives the buyer the right to buy specified quantity of the underlying asset at the strike price on or before expiration date. The seller has the obligation to sell the underlying asset if the buyer of the call option decides to exercise his option to buy.
- **A Put option:** Gives the buyer the right to sell specified quantity of the underlying asset at the strike price on or before expiry date.
- The seller of the put option has the obligation to buy the underlying asset at the strike price if the buyer decides to exercise his option to sell.

Important Derivative Products In Indian Financial Market

Forward Rate Agreement (FRA)

- A FRA is a forward contract on the interest rate.



- It is a financial contract to exchange interest payments based on a fixed interest rate with payments based on floating interest rate like 3 m MIBOR.

The exchange of payments is based on a notional principal of the FRA. Thus, there are 2 legs in a FRA:

- ✓ The fixed leg
- ✓ The floating leg.

Illustration

Let us assume that a corporate wants to borrow a sum of Rs. 1 crore for a period of six months starting three months from today. Its main concern is that the six months interest rate may rise in three months time and hence it wants to lock in a rate right today for a future borrowing commitment.

It enters into a 3 Vs 9 FRA with a counterparty for a notional amount of Rs.1 crore. If the counterparty quotes, say, 6.25/6.50 for a 3 Vs 9 FRA, the corporate buys the FRA at 6.50 which effectively means that it is locking itself for 6.5% for the above borrowing commitment.

If on the date of settlement, which is the date three months from today when the borrowing commitment has to be met, the benchmark rate agreed to by the counterparties settles, say, at 7.00%, the corporate's view on the interest rate has come true and it is paid by the seller of FRA the difference of 0.50% (7 - 6.5) on the notional principal for a period of 6 months discounted at 7%. On the other hand, if the benchmark interest rate settles at, say, 6.25% on the settlement date, the corporate pays the seller of FRA the difference of 0.25% (6.5-6.25) on the notional principal of Rs. 1 crore discounted at 6.25%. Thus in both the cases (whether interest rate rises or falls) the corporate's effective borrowing rate remains unchanged at 6.5%.

Salient Points of FRA

- As FRAs are OTC contracts, it is easy to customise the size and periods to suit the needs of the customer. Further, as the commitment is only to settle the interest differential, the credit risk with the counter party is minimal
- FRAs are used to hedge short term interest rate risk. FRAs do not enjoy very liquid markets. At times, it may become difficult to dispose of an FRA in the market at competitive prices.
- A FRA is a contract between two parties by which they agree to settle between them the interest differential on a notional principal on a future settlement date for a specified future period
- A person who has a commitment to borrow money at a future point of time buys a FRA to protect himself against interest rate risk and a person who has a commitment to lend money at a future point of time sells a Forward Rate Agreement to hedge his interest rate exposure.
- FRAs can be used effectively to lock in interest rates and thus manage the gaps between rate sensitive assets and liabilities of the balance sheet. Thus they are very useful in Asset Liability Management.



Plain Vanilla Interest Rate Swaps

- A Plain Vanilla Swap is the simplest form of Interest rate swaps where a fixed rate is exchanged for a floating rate or vice versa on a given notional principal at pre-agreed intervals, during the life of the contract.

Important RBI guidelines regarding interest rate swaps are as under:

- Banks can undertake IRS as a product for their own balance sheet management or for market making.
- Banks may also offer these products to corporates for hedging their own balance sheet exposures.
- Banks should ensure adequate infrastructure and risk management systems before venturing into market making activities.
- The Bench Mark rate should necessarily evolve on its own in the market and require market acceptance.
- The parties are free to use any domestic money or debt market rate as benchmark rate provided the methodology of computing the rate is objective, transparent and mutually acceptable.
- There is no restriction on the minimum or maximum size of notional principal amounts.
- There is no restriction on the tenor as well.
- Banks are required to maintain capital for FRAs and IRS

Salient points of Interest rate swaps

- An interest rate swap is a series of FRAs.
- The notional principal is not normally exchanged between the counterparties in an FRA and IRS.
- An Interest Rate Swap is a contract between two parties whereby they agree to exchange a stream of interest payments on a notional principal for a given period at pre-agreed intervals of time.
- Buying an IRS means choosing to pay Fixed and receive Floating.
- Prices of IRS are quoted in terms of the fixed leg.
- Pricing of IRS is based on the present value of fixed rate cash flows and floating rate cash flows.

Interest Rate Options

- Interest Rate options are fundamentally of two types, the Cap and the Floor.
- A Cap is an interest rate option in which the buyer of the option, with the intention of locking himself to a ceiling in interest costs for his borrowing, reserves the right to receive the difference in interest rate on a notional principal in case the interest rate on the underlying borrowing goes higher than the ceiling he has chosen at pre-agreed periodic intervals for a given time maturity.

Illustration



- To illustrate, let us say we have issued a bond for Rs. 100 crore and raised money in the market at a floating rate of 6 Mibor + 50 basis points.
- And let us assume that we have invested the money at fixed rate of 8%. We have also agreed to pay the investors in our bond interest at 6 monthly intervals and the maturity of the bond is say 5 years.
- This means that we have an interest rate risk for the next 5 years in case the 6m Mibor goes higher and higher.
- If the 6m Mibor is currently 5%, our return is $8 - 5.5 = 2.5\%$.
- However, if 6m Mibor were to go higher at future points of time, our return would go down below 2.5% till the interest rate reaches 7.5%, when we would just break even.
- Beyond 7.5% level in Mibor, we will make a negative spread.
- In order to eliminate this risk we may buy a CAP at, say, 7.0%. This means that we are sure of getting a spread of at least 0.5% in the above structure and any movement in 6m Mibor beyond 7% will result in our being compensated by the seller of the CAP.
- The 6m Mibor rate is prevailing on each of the 6 monthly coupon payment dates and if it is higher than 7%, the difference on the notional principal will be paid by the seller of the CAP.
- However, if the 6m Mibor is less than 7%, we choose not to exercise the option and hence we need not pay the seller the difference as is obtaining in an FRA or an IRS.

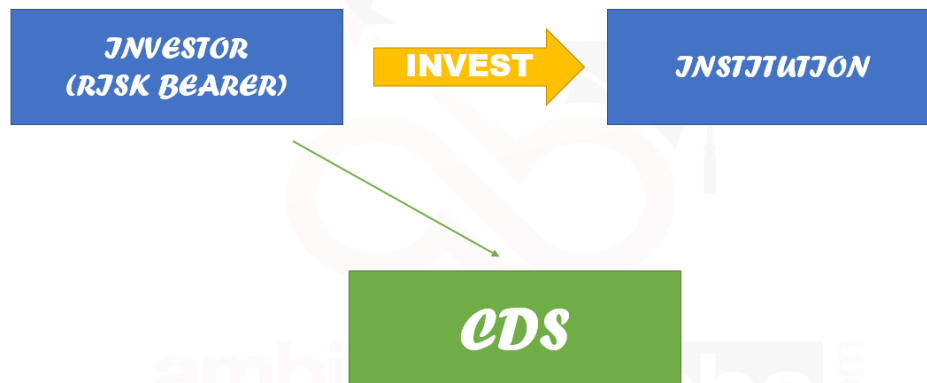
Salient Points of Interest Rate Options

- Separation of liquidity from return exposure
- Allows the option purchaser to acquire or shed exposure to the underlying asset without the necessity to purchase or sell the asset itself.
- The option contract is also inherently leveraged in that the full face value of the underlying asset is controlled through the payment of a premium that represents a percentage of the face value.
- The key element of the option contract is the ability of an option buyer to get asymmetric exposure to price fluctuations in the underlying asset.
- The option contract is off balance sheet to the parties entering the transaction.

Credit Default Swaps (CDS)

- This is a bilateral contract in which the risk seller (lending bank) pays a premium to the buyer for protection against credit default or any other specified credit event resulting in loss in the value of an underlying debt instrument.
- The protection buyer makes periodic payments (premium) to the protection seller until the maturity of the contract or the credit event, whichever is earlier.
- Normally, CDS is a standardized instrument of ISDA (International Swaps and Derivatives Association).
- The credit events defined by ISDA are, bankruptcy, failure to pay, restructuring, obligation acceleration, obligation repudiation/moratorium etc.

- As per RBI guidelines, only plain vanilla CDSs are allowed.



- Market-makers and users are not allowed to deal in any structured financial product with a credit derivative as one of the components or as an underlying.

The following debt instruments are eligible to be a reference/ deliverable obligation in a CDS contract:

- Commercial Papers, Certificates of Deposit and Non-Convertible Debentures of original maturity up to one year;
- Rated INR corporate bonds (listed and unlisted); and
- Unrated INR bonds issued by the Special Purpose Vehicles set up by infrastructure companies.
- Asset-backed securities/mortgage-backed securities and structured obligations such as credit enhanced/ guaranteed bonds, convertible bonds, bonds with call/put options etc. are not permitted as reference and deliverable obligations.

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JAIIB Paper 3 (AFM) Module D: Taxation and Fundamentals Of Costing

No. of Unit	Unit Name
Unit 1	Taxation: Income Tax/TDS/Deferred Tax
Unit 2	Goods & Services Tax
Unit 3	An Overview of Cost & Management Accounting
Unit 4	Costing Methods
Unit 5	Standard Costing
Unit 6	Marginal Costing
Unit 7	Budgets and Budgetary Control

JAIIB Paper 3 Module D AFM Unit 1: Taxation Income Tax/TDS/Deferred Tax

Overview Of Income Tax Act

- Every person who earns or gets an income in India is subject to income tax.
- NRI are also subject to Income tax on their income earned in India.
- The levy of income tax in India is **governed by the Income Tax Act, 1961 and Income Tax Rules, 1962.**
- The finance budget, presented every year in the month of February, brings various amendments in **Income-tax Act, 1961.**
- Such amendments, if approved, become part of the income tax Act.

This Act contains detailed provisions on important topics like

- ✓ Computation of income,
- ✓ Exemptions and deductions available,
- ✓ Tax slabs,
- ✓ Calculation of tax liability,
- ✓ Formats of return forms applicable to different assessee, etc.

Tax Deducted At Source (TDS)

- As per the Income Tax Act, any company or person making a payment, is required to deduct tax at source, at the rates prescribed by the income tax department, if the payment exceeds certain threshold limits.
- The provisions of TDS apply to several payments like salary, interest, commission, brokerage, dividend payments, professional fees, royalty, etc.



The person or the company that deducts the TDS before making the payment



Company or person receiving the payment

DEDUCTOR

DEDUCTEE

It is the deductor's responsibility to deduct TDS before making the payment and deposit the same with the government

- Each deductor (except when tax is deducted under Section 194-IA) is required to obtain a Tax Deduction Account Number (TAN).
- TDS is required to be deducted irrespective of the mode of payment-cash, cheque or credit-and is linked to the TAN of the deductor and PAN of the deductee.
- There are separate rules for individuals for deducting TDS when they make rent payments or pay fees to professionals like lawyers and doctors.
- TDS is a kind of advance tax paid by the deductee.
- For the deductees, the deducted TDS is claimed as a tax paid and a refund can be claimed if the tax liability is less than the TDS.

Tax Collected At Source (TCS)

- Tax collected at source (TCS) represents the tax collected by a seller from the buyer at the time of sale.
- **Section 206C of the Income-tax act specifies the categories of goods and the %age of TCS to be collected by the seller from the buyers.**

For example

TCS on Liquor of alcoholic nature, made for consumption by humans, is 1% and on Tendu leaves it is 5%.

Exempts certain buyers from the scope of TCS.

- ✓ Public sector companies,
- ✓ Central or State Governments, Embassies etc.
- **Int of 1% in case of delay:** If the tax collector, who is responsible for collecting the tax, does not collect the tax or after collecting doesn't pay it to the government before or on the due dates, he is liable to pay **interest of 1% per month.**
- Submit quarterly TCS return (Form 27EQ) in respect of the tax collected by him in a particular quarter.
- The interest on delay in payment of TCS to the government should be paid before filing of the return.



- **Form 27 D:** The tax collector has to provide a TCS certificate to the purchaser of the goods.
- **Section 206 (1H):** Introduced in October 2020 for collecting TCS from the buyers of goods who makes a payment of more than Rs 50 lakhs towards sale consideration in the financial year.
- **206CCA:** Inserted in 2021 for collecting a higher rate of TCS for non-filers of the income tax return in the last two years.

TCS under GST

Important provisions in this regard, effective from 1st Oct 2018, are as under:

- Any dealer or traders selling goods online would get the payment from the online platform after deducting an amount tax @ 1% under IGST Act. (0.5% in CGST & 0.5% in SGST)
- The tax would have to be deposited to the government by 10th of the next month.
- All the dealers/traders are required to get registered under GST compulsorily.

Classification Of Income Tax Payers

For the purpose of income tax, the term, 'Person', as mentioned in Section 2 of IT Act, includes the following:

- **An individual:** An individual means a natural human being and also includes a person of unsound mind.
- **A Hindu undivided family:** Under Hindu Law, an HUF is a family which consists of all persons lineally descended from a common ancestor and includes their wives and unmarried daughters. Jain and Sikh families are treated as HUF under the Act, even though they are not governed by the Hindu Law.
- **A Company:** Both domestic and foreign companies are included under this classification. An individual and a company are not taxed at the same rate. Individuals are taxed on the basis of tax slabs at different rates. The income-tax paid by domestic and foreign companies, on their income in India, is corporate income tax (CIT)
- **A Firm or LLP:** Under the partnership law, a Firm is not a legal entity. However, for income tax as well as GST, it is a separate legal entity. Thus, a firm is regarded as a unit of assessment.
A limited liability partnership (LLP) is a body corporate formed and incorporated under the Limited Liability Partnership Act, 2008. It is a legally separated entity from that of its partner. **All firms and LLPs are, presently, taxed at a flat rate of 30%.**
- **An association of persons (AOP) or body of individuals (BOI), whether incorporated or not:** Here it is important to note that an AOP or BOI is deemed to be a person, whether or not, it was formed or established or incorporated **with the object of deriving income, profits or gains.**



Trust created wholly for charitable or religious purposes are allowed various benefits under the Income Tax Act, inter-alia, and exemption u/s 11.

- **A local authority:** A local authority means the Municipalities and Panchayats etc.
- **Artificial Juridical Person (AJP):** If an Assessee does not fall under any of the other categories that are included in the definition of Person then it is regarded as an Artificial Juridical Person.

These entities are not natural persons but separate entities as per law. The tax liability of a person depends upon his legal status and above mentioned categories. Different rates of tax are prescribed for different categories.

Classification Of Income Heads

For the purpose of Income Tax, the income is categorised in to five heads, as under:

Income from Salary:

- Income from salary and pension is covered under this head. The amount is arrived at after allowing standard **deduction of Rs. 50,000**, a deduction in respect of any allowance in the nature of an entertainment allowance (subject to certain conditions), and deduction of any sum paid on account of a tax on employment.

Income from House Property:

- This consists mostly of rental income. The taxes levied by any local authority in respect of the property, are allowed to be deducted.
- The amount of any interest payable on borrowed capital is also allowed to be deducted.

Profits and gains of Business or Profession:

- This is when you are self - employed, work as a freelancer or contractor, or you run a business.
- Life insurance agents, doctors, chartered accountants, and lawyers who have their own practice, tuition teachers, architects etc., Corporates, Banks, Insurance Companies and Financial Institutions are taxed under this head.

Income from Capital Gains:

- Income from sale of a capital asset such as mutual funds, shares, house property, and agricultural land is included under this head.
- Where a shareholder receives any money or other assets from the company on its liquidation, he shall be chargeable to income-tax under this head.

Income from Other Sources:



- Consists of income from savings bank account, fixed deposits, winnings from competitions etc. Gross total income is the total income earned by the assessee during any financial year.
- It is the sum total of all incomes earned by the Assessee under each of the above mentioned heads of income.

Incomes Not Included In Total Income

- ***In computing the total income of any person, any income falling within any of the clauses of Section 10 of the IT Act are not included.***
- **Some of these incomes:** Agricultural income, share of a partner in the total income of the firm, the value of any travel concession or assistance received by an individual, gratuity received, sum received on voluntary retirement or termination of service, payment from an approved superannuation fund, scholarships granted to meet the cost of education

Deductions To Be Made In Computing Total Income

Chapter VIA specifies the exemptions available for deductions from the Gross Income for the arriving at the taxable income of the Assessee to calculate the income tax liability.

These deductions are specified in **sections 80C to 80U**. **Some of these deductions are mentioned below:**

- **Section 80 C:** Deduction in respect of life insurance premia, deferred annuity, contributions to provident fund, subscription to certain equity shares or debentures, etc. The aggregate amount of deductions under section 80C, section 80CCC and sub-section (1) of section 80CCD is limited to Rupees one hundred and fifty thousand.
- **Section 80D:** Deduction in respect of health insurance premia.
- **80E:** Deduction in respect of interest on loan taken for higher education.
- **80G:** Deduction in respect of donations to certain funds, charitable institutions, etc.
- **80QQB:** Deduction in respect of royalty income, etc., of authors of certain books other than text-books
- **80RRB:** Deduction in respect of royalty on patents.
- **80TTA:** Deduction in respect of interest on deposits in savings account.
- **80TTB:** Deduction in respect of interest on deposits in case of senior citizens.
- **80U:** Deduction in case of a person with disability.

New Tax Regime

- Through the **Finance Act 2020**, a new section **115BAC** has been inserted in the **IT Act**, wherein an individual gets an option to choose between the existing



tax rates and the new concessional tax rates by foregoing prescribed exemptions or deductions.

- **In 2019 - Section 115BAA, has been inserted in the IT Act:** benefit of a reduced corporate tax rate to domestic companies. It states that domestic companies have the option to pay tax at a rate of 22% (plus applicable surcharge and cess), from the FY 2019-20 onwards if they adhere to certain conditions specified.
- The domestic companies who do not wish to avail of this concessional rate immediately can opt for the same after the expiry of their exemptions/incentives.
- However, once a company opts for the concessional tax rate under this section, it cannot subsequently withdraw from it.

Filing IT Return

- It is mandatory to file the income tax returns for residents and NRIs whose gross total income **(before allowing any deductions under section 80C to 80U)** exceeds threshold exempt income for that assessment year.
- It is also mandatory if an income tax refund is to be claimed or a loss under a head of income is to be carried forward.
- It is also mandatory in case of a Resident individual having an asset or financial interest in an entity located outside of India.
- It is mandatory for a company or a firm irrespective of whether it has income or loss during the financial year.
- If after furnishing the return, a person finds any mistake, omission or any wrong statement, the return can be revised within prescribed time limit.
- e-Filing of return is mandatory.
- However, paper returns can be filed by those who **are above 80 years of age** and do not have any income from regular business or profession.

Applicable Form Of Income Tax Return (ITR)

- Particulars of income earned during a financial year and taxes paid on such income are provided to the IT Department.
- If the tax already paid > that payable, a refund is claimed.
- Certain losses can also be carry -forward to the next assessment year.
- Different forms of returns of income are prescribed for filing of returns depending on the status of the person and the nature of income.
- For the assessment year 2021-22 (i.e., financial year 2020-21) ITR – 1 to ITR -7 have been prescribed.



Deferred Tax

- The taxable income and accounting income may not be the same as the taxable income is calculated in accordance with tax laws while the accounting income is calculated by applying the accounting policies.
- The differences can be classified into permanent differences and timing differences.

Permanent differences

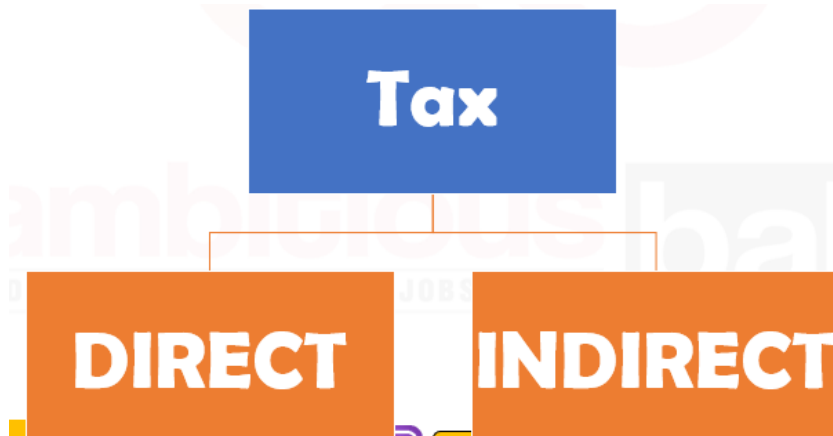
Originate in one period and do not reverse subsequently.

- ☐ For example: if the tax law does not allow an item of expenditure, the disallowed amount will result in a permanent difference.
- ☐ Timing differences originate in one period and are eligible for reversal in subsequent period/s.
- ☐ The Deferred Tax is brought into accounts to make the clear picture of current tax and future tax.
- ☐ This deferred tax results into inclusion of either the Deferred Tax Assets or the Deferred Tax Liabilities in the balance sheet.
- ☐ As per Ind AS, Deferred Tax liabilities should not be classified as current liabilities and Deferred Tax assets should not be classified as current assets.

JAIIB Paper 3 (AFM) Module D Unit 2 – Goods & Services Tax

Introduction

- Taxation is the process adopted by a government to levy and collect taxes from individuals, business entities and other organisations in the country.
- Due to Federal structure, both the Central and State governments are involved in determining the various aspects of taxation, in India.
- Over the last few years, various policy reforms have been undertaken by the Central and State governments to streamline the process of taxation



Direct tax

- Tax imposed directly on a taxpayer and it is required to be paid to the government directly by the taxpayer.
- Cannot be transferred or shifted to another person.

For example, the income tax paid by an individual is considered a direct tax because the burden of the tax falls solely on the individual who has a taxable income and he cannot shift the tax to others.

- ❑ **Others:** corporate tax, wealth tax, property tax, capital gains tax, and securities transaction tax (STT).

Indirect taxes

Which can be shifted to another person/entity. It is not the tax levied on the income or profit but on the goods and services rendered. Can be shifted from one individual/entity to another.

For example, a sales tax paid by the buyer in a retail setting is not paid directly by the buyer.

- ❑ It is collected by the seller from the buyer and paid to the government.
- ❑ implementation of goods and services tax (GST) regime from 01 July 2017 has resulted in replacing all forms of indirect taxes, imposed on goods and services by the state and central governments.
- ❑ Other levies which were applicable on inter-State transportation of goods have also been done away in the GST regime.

Difference Between Direct Tax and Indirect Tax

Parameter	Direct tax	Indirect tax
Tax Imposition	This tax is directly the taxpayer's income.	This tax on taxpayers for the <u>goods</u> and <u>services</u> availed or purchased.



Payment course	This tax is directly paid to the government.	This tax is indirectly paid to the government through an intermediary.
Paying Entity	These taxes are paid by individuals and businesses.	These <u>taxes</u> are paid by end-consumers.
Rate of Payment	The rate of tax is decided by the government based on profit and income.	<u>Tax rates</u> are the same for everyone.
Transferability of tax	This type of tax is non-transferrable.	This type of tax is transferable.
Nature of Tax	This is a progressive type of tax. This tax rate increases with an individual's profit and income.	This is a regressive type of tax, which means the tax rate is not affected by the individual's income.
Types of tax	<u>Income tax</u> , wealth tax, corporate tax, etc.	Sales tax, service tax, value added tax, etc.
Tax Collection	Collecting this type of tax is difficult.	Tax collection is relatively easier.

Goods And Services Tax (GST)

- **Introduced:** From 01 July 2017
- A large number of Central and State taxes got amalgamated into a single tax.
- Easier to administer and encourages a shift from the informal to formal economy.
- GST is intended for the unification of the various indirect taxes, prevailing in the country.
- Also aims at reducing the physical interface and lower the cost of compliance.
- GST is levied on all transactions such as sale, transfer, purchase, barter, lease, or import of goods and/or services.
- Comprehensive tax subsuming almost all the indirect taxes except a few State taxes.
- Not in regime: crude oil, petroleum products, electricity and Alcoholic liquor for human consumption.
- India adopted a dual GST model, meaning that taxation is administered by both the Union and State Governments.

There are 4 types of GST in India, as mentioned below:



- Transactions made within a **single state** are levied with **Central GST (CGST)** by the **Central Government** and **State GST (SGST)** by the State governments.
- For inter-State transactions and imported goods or services, an Integrated **GST (IGST)** is levied by the Central Government and they give the share of State or Union Territory.
- **UGST** is applicable for Union Territories like Chandigarh, Andaman and Nicobar Islands etc.
- GST is a destination based tax on consumption of goods and services. Therefore, taxes are paid to the state where the goods or services are consumed and not to the state in which they were produced.
- The tax would accrue to the taxing authority which has jurisdiction over the place of consumption, which is also termed as place of supply.

GST Council

- It is the Governing body
- **Chairman:** Union Finance Minister
- Includes the Minister of State (Revenue) and the State Finance Ministers.
- Main decision making body
- Recommendation on issues like which goods and services may be taxed, or exempt from GST, GSR rates, etc.

Input tax credit

- The concept of GST is based on permitting set-off for the tax paid on the inputs and this is given effect through the input tax credit against the amount of a dealer's output tax. The related tax liability of the dealer can be arrived at by deducting input tax credit from tax collected on supplies during the payment period.

Who is liable to pay GST?

Supplier of goods or services

- In specified cases like imports and other notified supplies, the liability may be cast on the recipient under the reverse charge mechanism.
- In cases of intra-State supply of services, the liability to pay GST may be cast on e-commerce operators through which such services are supplied.



- Also Government Departments making payments to vendors above a specified limit, are required to deduct tax (TDS) and E-commerce operators are required to collect tax (TCS) on the net value [i.e. aggregate value of taxable supplies of goods and/ or services but excluding such value of services on which the operator is made liable to **pay GST under Section 9(5) of the CGST Act, 2017**] of supplies made through them and deposit it with the Government.
- **Under the system of GST, the threshold limit is ₹ 20 lakh (₹ 10 lakh for north eastern states, Uttarakhand, Sikkim and Himachal Pradesh).** Suppliers below the threshold limit are not required to register or pay tax.

When does liability to pay GST arise?

- **Section 12:** Liability to pay arises at the time of supply of Goods as
- **Section 13:** At the time of supply of services
- The time is generally the earliest of one of the three events, namely receiving payment, issuance of invoice or completion of supply.
- Different situations envisaged and different tax points have been explained in the aforesaid sections.

Who has to file GST Returns?

Every person registered under GST will have to file returns in some form or other.

- A registered person will have to file returns either
 - ✓ monthly (normal supplier)
 - ✓ quarterly basis (Supplier opting for composition scheme).
- An Input Service Distributor will have to file monthly returns showing details of credit distributed during the particular month.
- A person required to deduct tax (TDS) and persons required to collect tax (TCS) will also have to file monthly returns showing the amount deducted/collected and other specified details.
- A non-resident taxable person will also have to file returns for the period of activity undertaken.
- There are separate returns required to be filed by special cases such as composition dealers.
- Since Banks are service providers, Composite Scheme is not applicable to them.

The returns to be filed are as under:

- ✓ Details Return Forms Periodicity Return for registered persons with aggregate turnover of more than ₹ 1.50 crores GSTR-1 and GSTR-3B Monthly Return for registered persons with aggregate turnover up to ₹ 1.50 crores GSTR-1 Quarterly



Return for registered persons with aggregate turnover up to ₹ 1.50 crores GSTR-3B Monthly

- ✓ The system requires that one must manually enter details in the return - GSTR-1.

Late Fees :

- ✓ If GST Returns are not filed within time, interest on delayed payment of tax is payable @ 18% per annum.
- ✓ It has to be calculated on the amount of tax liability from the next day of due date of return till the date of payment

Advantages Of GST

- **Less complex and administer:** Complexity of the tax structure due to multiplicity of taxes and tax rates will be reduced considerably. Administration of taxation system in the country will be more effective.
- **Make industry more competitive:** GST will make the Indian trade and industry more competitive as it is expected to reduce cost of production and inflation in the economy.
- **Better compliance:** GST is aimed at broadening the tax base and also at better tax compliance.
- **Online form:** The foundation of the GST regime in India is a comprehensive IT system. All tax payer services such as Registrations, Payments, Returns etc. will be available to the taxpayers online. This will make the compliance easy and transparent.
- **Uniform structure:** It will improve the ease of doing business as the GST will ensure that indirect tax rates and structures are uniform across the country.
- **Reduction in price:** Elimination of cascading of taxes will result in reduction in prices of goods and services
- GST is charged only on the component of value addition at each stage to ensure that there is no 'tax on tax'.

GST Provisions With Respect To Banks

Service sectors are impacted more by the GST than the manufacturing or trading sectors.

Owing to the nature and volume of operations provided by banks, GST compliance is quite difficult to implement.

Some of the issues and impacts pertaining to the provisions of GST Law are as below.

Due to widespread number of branches, the registration is a hassle. However, under GST, such Banks are required to obtain a separate registration for each state where they operate.



compliance burden about filing of returns has also increased substantially in terms of payments of taxes, the periodicity of returns, number of return formats and level of details required in these returns.

Input Tax Credit is leveraged and de-leveraged

- Earlier, Banks and NBFCs by and large, opted for the option of reversal of 50% of the CENVAT credit availed against inputs and input services whereas CENVAT credit on capital goods could be availed with no reversal conditions.
- Under GST, 50% of the CENVAT credit availed against inputs, input services, and capital goods is to be reversed, which leaves them with a position of reduced credit of 50% on capital goods thereby increasing cost of capital.

Assessment and Adjudication has become bothersome The assessment is done by the respective state regulators under which the respective branch is registered.

Now, every registered branch of banks must justify its position on chargeability in the respective State and reason for utilizing input tax credit in different States.

As more than one adjudicating authority is involved under GST, each authority may hold a different opinion on the same underlying issue.

Issues related to revenue recognition under GST

- Account Linked Financial Services
- Non-Account Linked Financial Services
- Actionable Claims
- GST on banking Transaction fees

JAIIB Paper 3 (AFM) Module D Unit 3- An Overview Of Cost & Management Accounting

Cost Accounting

Concept of cost

- **To a consume:** cost means the purchase price.
- For the producer of a product or provider of a service: the cost means the expenditure incurred for producing the product or providing the service.
- Costing means ascertaining these costs incurred in producing this specific product or providing this specific service.
- Cost may involve various elements like materials, labour, energy, transport, depreciation etc.

Meaning of cost accountancy

- For an organisation producing only one product, the costing exercise may be simple as the cost per unit can be arrived at by dividing total cost by the number



of units produced. But, for an organisation producing multiple products, the costing exercise may be a bit complicated as the

- costs are to be allocated properly to each product.
- **For example,** if the total cost on fuel and electricity is ₹ 20 lakh, and there are 5 types of products manufactured in the factory, it will be not be correct to allocate ₹ 4 lac to each type of the product group.
- We will have to conduct proper study of the manufacturing process of each type of products and keep proper records for the correct allocation of cost.
- Cost Accounting deals with this aspect.
- Involves identifying, measuring, recording, allocating and communicating economic information, related to a product or service, in terms of money.

Objectives of cost accounting

The main objective of cost accounting is to ascertain the cost of each product manufactured or service provided by an organisation.

To record, analyse and classify all expenditures related to the cost of products services.

To determine the cost of each unit, operation, process, or department.

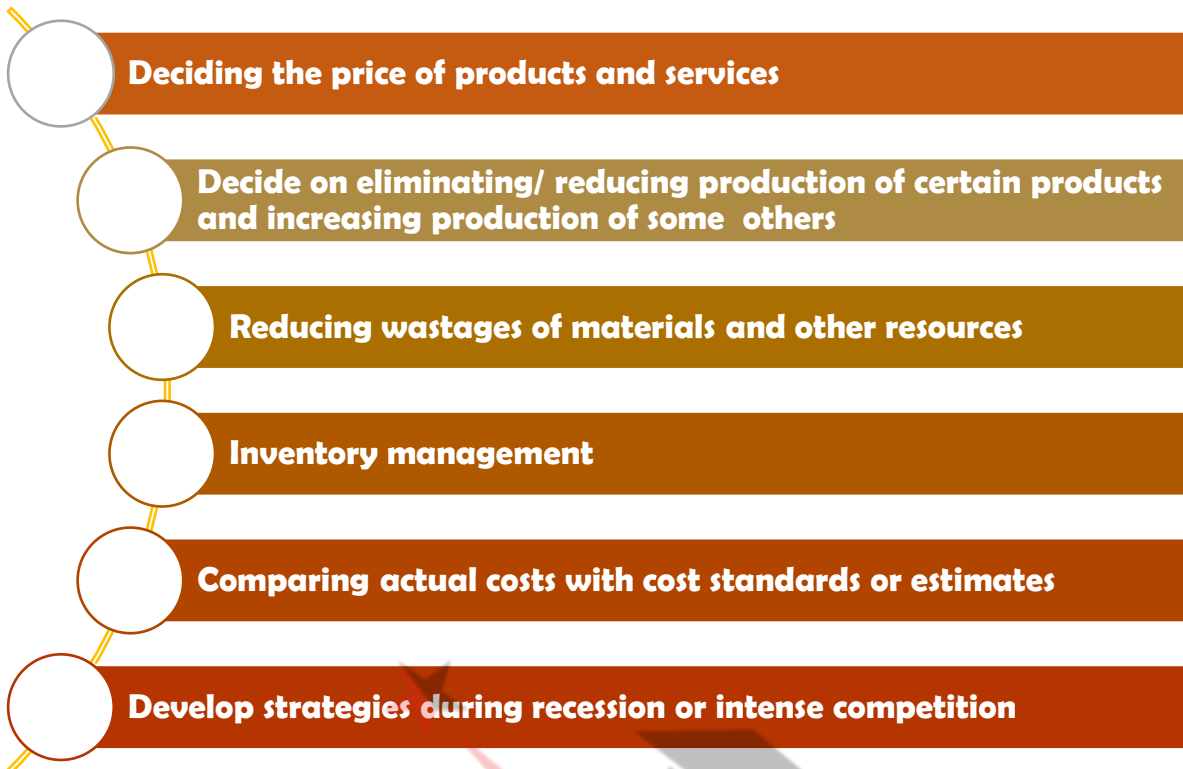
To compare the actual costs with the prevailing cost standards or estimates for avoiding unnecessary wastages or losses of materials and other resources.

To provide the necessary information to enable management to make specific or long term economic decisions

Advantages and scope of cost accounting

Cost accounting provides decision making information to the management in various areas.

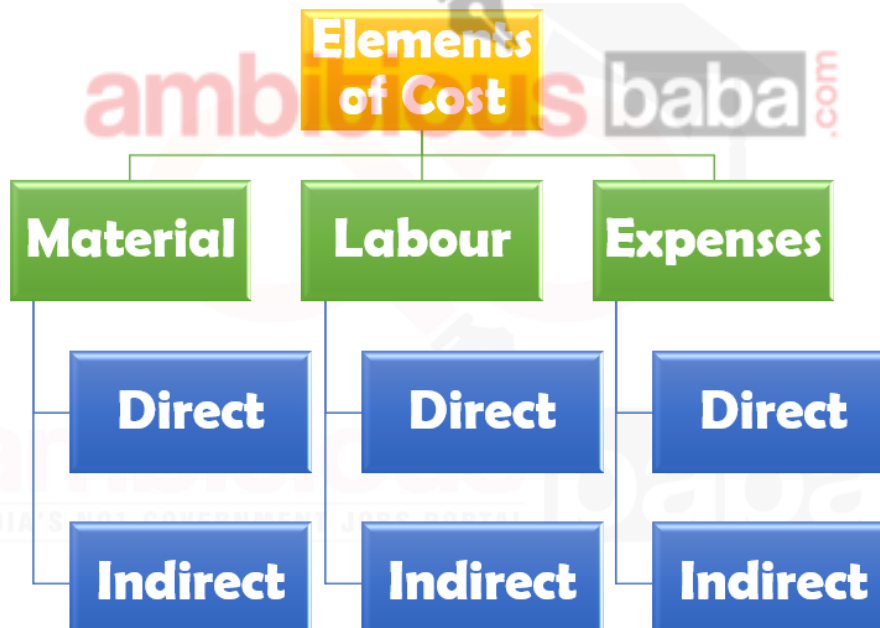
Some of these are as under:



Elements of cost

There are various methods of classifying the cost elements of a product or service.

The classification of the elements of cost based on the nature of these elements is as under:



Material

In is of two types: direct material cost and indirect material cost.



Direct material Cost : Major part of the finished product.

- For example: For producing a car, various components are purchased/manufactured.
- The cost of these components is direct material cost.

Indirect material Cost: Ancillary to production and do not form part of the finished product.

- For example: While manufacturing a car, machines consume lubricants and welding electrodes are used to weld steel sheets and components.
- These consumables do not directly form part of the car but are necessary in producing it.

Labour cost

Also is classified into direct labour and indirect labour cost.

- **Direct labour cost:** Wages paid to workers who are directly engaged in the production process and their time is traceable to units of products.
- For example, wages paid to workers in the car factory for production of components and their assembly.
- **Indirect labour cost** cost is the cost of labour employed for the purpose of carrying tasks incidental to production of goods or rendering the services.
- **For example:** In a car factory, the cost of labour employed in the stores, administration, security etc. is classified as indirect labour cost.

Expenses

These also are classified as direct or indirect.

- **Direct expenses:** incurred on a specific cost unit and are identifiable with the cost unit.
- For examples: The cost incurred in designing a special car model can be attributed to the number of cars of that model produced.
- **Indirect expenses** are those expenses which cannot be directly or conveniently allocated to a specific cost unit.
- For examples: Expenses incurred on rent, taxes, insurance, lighting etc. in a car factory can be treated as indirect expenses as these cannot be attributed to a particular model of cars being manufactured in the factory.

The classification of the elements of cost based on their association with the volume of production is fixed, variable and semi-variable cost.

- **Fixed costs:** These are the costs which, during a period, do not depend on the volume of production or the level of activity. For example: The insurance premium paid for the factory building and other fixed assets remains the same irrespective of the number of cars produced during the year.



- **Variable costs:** These are the costs which, depend directly on the volume of production or the level of activity. For example: The cost of engines will be directly proportional to the number of cars produced during the year.
- **Semi-variable costs:** Such costs qualities of both fixed and variable costs. Because of their partly variable nature, they increase with the volume but they do not increase in direct proportion to increase in output, due to their partly fixed nature. For example: If the production of cars doubles in the factory, the administrative department will also have to employ more staff but the increase will not be 100%.

Cost Centre

- Cost centre is the smallest organisational sub-unit for which separate cost allocation can be made.
- Chartered Institute of Management Accountants(CIMA), London, describes a cost centre as: "A production or service location, function, activity or item of equipment whose costs may be attributed to cost units".
- In other words, a cost centre is one of the many convenient units into which the whole production facility has been divided for the purpose of costing the goods produced.
- Each such unit consists of a specific production centre, or a department or a sub-department or, specific type of machinery or a group of persons.
- For example can be a bank branch where cash department can be considered as one cost centre while the loan department can be another cost centre.
- **Classified as Productive, Unproductive or Mixed Cost Centres.**
- **Productive cost centre** is actually engaged in making the products.
- **Unproductive cost** centre does not directly contribute in making the product but provides essential support to the productive centres.
- **Mixed cost centre** is sometimes involved directly in contributing to the manufacture of the product and sometimes in providing service to the productive departments.

Cost Unit

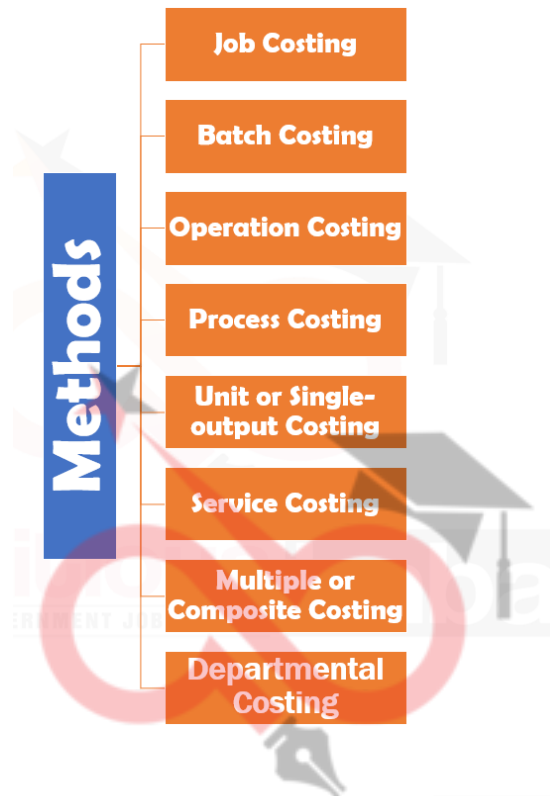
- It refers to measure of cost.
- For example, a transport company may quote its rate per kilometre while a sugar manufacturing company may quote the rate for each ton or kilogram.
- **CIMA defines** a unit of cost as "a unit of product or service in relation to which costs are ascertained".
- Therefore, whenever we have to do costing of a product or service, we decide a unit of that product or service for which the costing will be done.
- Thus, sugar manufacturer will find the cost of producing one ton or kilogramme of sugar while the transport company will add up all the cost elements involved in covering a distance of one kilo meter.
- The cost units are usually the units of physical measurements like number, weight, area, length, value, time etc.



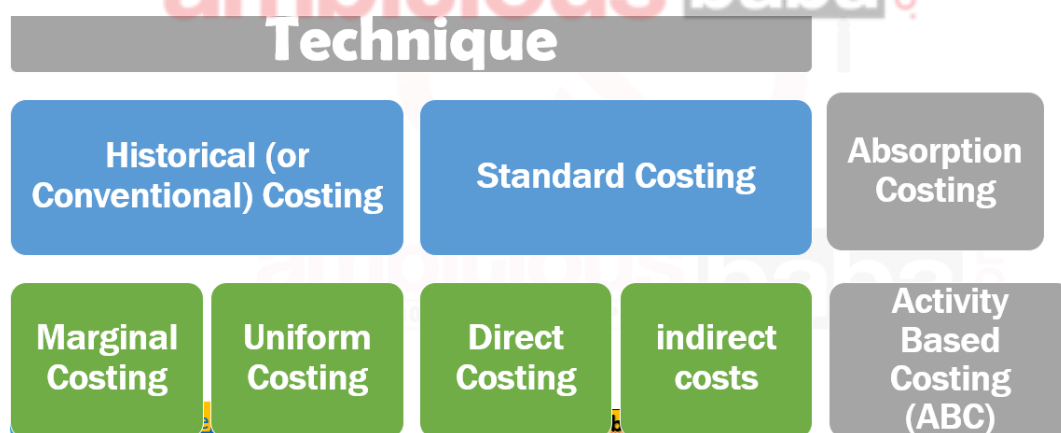
- An example of time being the cost unit is finding the hourly cost of a machining centre. Similarly, if a factory is producing chemicals, its cost unit can be a litre or a gallon. In case of crude oil, the commonly used cost unit is barrel.

Methods of Costing

Depending on the type and nature of the product, the costing method adopted by organisations are different.



Technique of Costing



Cost Accounting Standards

- As financial accounting standards protect the interests of outside users, they have gained wide and also statutory acceptance.



- However, the cost accounting system generates information primarily for internal use and the primary users of cost information are the managers of the company.
- Therefore, the principles and practices relating to cost accounting, which evolved over years, have not gained the acceptability and status enjoyed by the financial standards.
- In India, the Cost Accounting Standards (CAS) have been issued by the Institute of Cost Accountants of India (ICoAI).
- The Preface to Cost Accounting Standards issued by the ICoAI has set out the following objectives to be achieved through CAS
 - ✓ To provide better guidelines on standard cost accounting practices;
 - ✓ To assist cost accountants in preparation of uniform cost statements;
 - ✓ To provide guidelines to bring standard approach towards maintenance of cost accounting records under various statutes;
 - ✓ To assist the management to follow the standard cost accounting practices in the matter of compliance with statutory obligations; and
 - ✓ To help Indian industry and the government towards better cost management.

Difference Between Financial Accounting and Cost Accounting

Financial Accounting	Cost Accounting
Takes care of the statutory requirements like the Companies Act and Income-tax Act.	Generally voluntary except that for some manufacturing industries, it is now obligatory to keep cost records as per the Companies Act.
Aims at providing suitable information to various stakeholders of the business organisation, such as owners, investors, creditors, tax authorities	Purpose is mainly to meet the requirements of management
Concerned with revealing the profits and losses of the organisation as a whole	concerned with the unit costs and profitability of different products. In cost accounting, the emphasis is more on planning and control.
Statements are normally prepared quarterly, half yearly or annually.	no such standard and the reports may be prepared even on daily basis
Most of the transactions covered are external transactions	mostly concerned with internal transactions
deals with actual figures and not the estimates	accounting deals with estimates also as a part of budgetary control.

Management Accounting

Meaning and evolution of Management Accounting

- Management of any business organisation has to take various decision every day regarding transactions and events like sales, purchases, production volumes, outsourcing, pricing, controlling expenses, addition or disposal of fixed assets etc.
- Most of these transactions and events can be measured and expressed in money values and affect the working and position of the organisation.



- Therefore, these need to be reported to the management.
- Management accounting relates to measurement, recording and analysing all those aspects of an organisation which are important for the management to take decisions on conducting the business of the organisation efficiently and effectively.
- As per the definition of management accounting, given by Robert Anthony, **“Management accounting is concerned with accounting information which is useful to management”**.
- The basic data for management accounting comes from the same accounting system which is established for financial accounting and cost accounting systems but the scope of providing information and reports is much wider.
- Statistical and mathematical techniques are also used in management accounting in addition to the accounting techniques.
- The evolution of Management Accounting has its roots in the industrial revolution of the 19th century, which placed new pressures on companies through capital markets, creditors, regulatory bodies, and taxation.
- As the operations became more complex due to expansion of product lines, forward looking companies felt increasing need for

Objective of Management Accounting

The basic objective of management accounting is to assist the management in carrying out its duties efficiently by identifying, interpreting and presenting the relevant information. The information presented by management accounting can be broadly used for the following purposes (as mentioned by CIMA, London):

- Formulating strategy;
- Planning and controlling activities;
- Decision taking;
- Optimising the use of resources;
- Disclosure to shareholders and others external to the entity;
- Disclosure to employees;
- Safeguarding assets.

Scope of Management Accounting

The scope of providing information and reports under management accounting is much wider than under the financial accounting and cost accounting systems. Statistical and mathematical techniques, including budgetary control, are also used in management accounting in addition to the accounting techniques. ***Some of the important tasks, which fall under the scope of management accounting, are as under:***

- Management accountancy involves developing financial accounting, cost accounting, tax accounting and information systems to meet the changing needs of management functions.



- Management accountancy compiles, analyses, interprets and presents accounting and other data to make it understandable and usable to the management for planning.
- Management accountancy helps in communicating management plans to the various levels in the organisation.
- Management accountancy also helps in developing an effective system of feedback reports. Such reports help in analysing the reasons and responsibilities for deviations so that appropriate corrective measures can be taken.
- Management accounting also provides system of evaluating the performance of the management itself. This helps not only the owners and investors but also helps management in self-appraisal of their performance.

Tools and Techniques of Management Accounting

- As the operations became more complex, the companies felt increasing need for management-oriented reports and improved tools and techniques in management accounting have been devised based on the new requirements.
- This is a continuing process and improved tools and techniques continue to evolve with increase in complexity and needs of the businesses.

Presently, the main tools and techniques used in management accounting are as under:

- Financial Planning
- Selecting appropriate tool for decision making
- Financial Statement Analysis
- Statistical and Graphical Techniques
- Selecting appropriate method of reporting

Difference Between Management Accounting and Cost Accounting

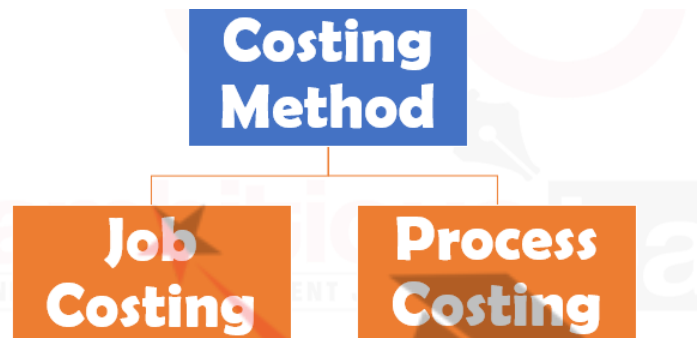
Cost Accounting	Management Accounting
The scope of cost accountancy is lesser. Cost accounting relates more to the ascertainment, allocation, and accounting aspects of costs,	The scope of management accounting is much wider . It relates more to the impact and effect aspects of costs.
Mainly about short-term planning	Concerned with both short-range and long-range planning.
Cost accounting data provides a base for applying the methods of management accounting to make the data more purposeful for management decisions.	Management accounting makes use of additional tools and techniques available to it, compared to those available for cost accounting. For example, the tools like standard costing, break-even analysis, marginal costing etc. are used in cost accounting, additional tools like ratio analysis, cash and funds flow analysis, trend analysis etc. are available for management accounting.
Included in management accounting	Both financial accounting as well as cost accounting are included in management accounting, which also takes care of tax accounting and capital budgeting.
Depends mostly on historical costs	Tends to be futuristic accounting.



JAIIB Paper 3 (AFM) Module D Unit 4- Costing Methods

Introduction

- Costing is the process of determining the expenditure incurred in producing a product or providing a service.
- Correct costing is crucial for any business organisation as it has a direct bearing on all its sales and marketing strategies.
- Basic principles of costing do not change with the system of costing adopted.
- Costing methods are broadly classified into two categories



- Some methods make part use of job costing and part use of processing costing.
- Under these broad categories, Unit or output Costing, Job Costing, Batch costing, Contract costing, Process costing and Service costing are amongst the widely used methods of costing, in the industry.

Unit And Single-Output Costing

This method of costing

Finding out the cost of the total output

Cost per unit = total cost / the number of units produced

Example: A company produces television sets of only one type. During one month, its total production was 3000 sets. The total cost incurred by the company was ₹ 3 crore = cost of one television set is ₹ 3 crore / 3000 = Rs.10000

Suitable: Assembly department in a factory producing a mechanical article as also in industries like brick-making, mining, sugar, cement etc.

When using this method of costing, it may not be necessary to maintain separate cost accounts as the required information can be derived from the financial records maintained under financial accounting.

This method has some limitations and can be used in the following cases:

- ✓ Where a firm is producing a single article on large scale by continuous manufacture.



- ✓ Where the units produced are identical.
- ✓ Where the products are homogenous.
- ✓ Where a firm is producing two or more grades of one product.

Cost Sheet

- The cost sheet, maintained under the single-output/ unit cost, is a periodic statement.
- It is a document which records the detailed cost of a cost centre or cost unit.
- It contains information on expenditure incurred on material, labour and direct expenses.
- The administration expenses actually incurred are also included in the total cost.
- Indirect expenses, payable at periodical intervals, are included in the cost sheet on the basis of estimates.
- Selling and distribution expenses may or may not be included in cost sheets, depending upon the management decision.
- **Not recorded:** Taxes/interest/dividends paid, provisions and write offs, cash discounts, profit or loss on sale of assets, etc.

Job Costing

- Job costing system is required by the industries where each unit or batch of output of a product is different from the other units or batches.
- This is in contrast to process costing system, which is used in industries where production units are similar and the production takes place on a continuous basis.
- When the production is not on a continuous basis and each job is different from the other
- Also known as Job Order Costing

Applications of Job Costing

- Companies manufacturing products or rendering services against specific orders or jobs use this system of costing.
- **Examples are:** Engineering and construction companies, ship-building/furniture making, machine manufacturing companies, repair shops, automobile garages and such other industries where jobs or orders can be segregated.
- The aim of job costing is to record all the costs incurred for completing a job so that it may be appropriately priced.

Features of Job Costing

Execution of a job order involves meticulous planning of resources to control the costs. Execution of a specific job, as per the specifications of the customer, is more difficult compared to production under continuous process, where the systems and procedures



are stable and standardised. The job execution may not be just arranging for materials and labour but may also involve design and innovation.

The main features of job costing system can be summarised as under:

- It is costing of a specific order for production or rendering of services as per the requirements of the customer.
- It involves recording all the costs incurred for completing a job so that it may be appropriately priced.
- Estimation of costs is difficult as very little data may be available due to uniqueness of the job.
- At the end of the job, the materials left may be difficult to value due to uncertainties about their use in other jobs.

Job Cost Cards/Sheets

- A job cost card is used for each job, which is the object of costing, to record the costs of materials, labour and overheads pertaining to that particular job.
- Job card basically provides a record to the management for their decision making and controlling the cost.
- The job cost card also records the time spent by operators on each job.
- Any breaks or idle time taken by the operators is also recorded in the job cost card.

The main advantages of a job cost card are as under:

- ✓ It gives clear and relevant information to the management to enable them to take appropriate decisions
- ✓ It is an effective tool for cost control
- ✓ It helps in reducing the idle time of labour involved in the job
- ✓ Job card information can be used to check the accuracy of job account
- ✓ It acts as a link between the production control and costing departments

Following is a specimen of a simple costing card/sheet, only for the purpose of illustrating its concept:

Job cost card/sheet (specimen)

Customer _____

Name of Job _____

Job No _____

Date of start _____

Date of completion _____



Materials costs			Labour costs			Manufacturing overheads			
Date	Requisition No.	Amount	Date	Hours	Rate	Amount	Hours	Rate	Amount

Summary of cost sheet

1. Direct materials cost Rs. _____
 2. Direct labour cost Rs. _____
 3. Direct overheads/manufacturing overheads Rs. _____
 4. Allocation of fixed overheads/non-manufacturing overheads Rs. _____
- Total Rs _____

Collecting Direct Costs

The job costing collects the following direct costs pertaining to a job:

- ✓ Direct material costs
- ✓ Direct labour costs
- ✓ Direct overhead costs or production overheads

Direct material costs

- On receipt of a production order, the production department submits a requisition note to the stores to issue the requisite materials. Surplus, excess or incorrect materials are returned by the production department to the stores with materials return note.
- The job cost sheet records all these issues and returns of materials.

Direct labour costs

- Each day, the time spent by various types of labour on a particular job, is recorded.
- Labour summaries or wages analysis sheets are prepared for each week or any other suitable accounting period.
- This analysis also includes the amounts on account of overtime, idle time, shift-differential etc.
- Direct labour costs are posted on the respective job cost-sheets.
- **Direct overhead costs or production overheads**
- Direct overhead costs for a job are recorded for all the cost centres through which the job passes in the course of its completion.
- The amount of direct overhead costs for each job order is summarised in an analysis sheet and is posted in the relevant cost cards/sheet of that job



Allocation of Fixed/Non-Manufacturing Overheads

- This is done on the basis of a pre-decided percentage of the total Fixed/Non-manufacturing overhead costs.
- The criteria for this percentage could be the time taken, labour input, complexity of job or any other suitable parameter. Normally, these overheads are added only after completion of the job.

Job Account

- For each job, a Job account is maintained so that the cost of that job is known readily.
- The Job Account is different from the job cost sheet.
- Job account contains only the monetary information, while the job cost sheet records other information also.
- As in the case of job sheet, depending upon the nature of the job and the requirements of the organisation, the format of the Job account is devised and used.

An illustrative format of a job account may be as under:

Date	Particulars	Materials ₹	Labour ₹	Direct overheads ₹	Total ₹	Analysis of total cost

Contract Costing

- Contract costing is a form of job costing applied to relatively large jobs which take a considerable time to complete (normally, more than one year).
- Like in job costing, in contract costing also, each contract is treated as a cost unit and its costs are separately ascertained.
- Examples where contract costing is suitable include shipbuilding, engineering projects, construction contracts, infrastructure projects etc.
- In some industries and government contracting, contract costing is the primary task of the accounting department.
- Proper contract costing is crucial to earn adequate profits, and so is usually staffed with experienced accountants.

Features of Contract Costing

- Under Contract Costing, a separate contract account is maintained for each contract.
- All the direct costs related to execution of contract, are allocated to the contract.
- The overheads for a contract are allocated in the same way as under the job costing. A contract usually involves a lower amount of overheads but these require appropriate allocation.
- Work-in-progress is an important aspect in contract costing.



Distinction Between Job and Contract Costing

- The work is usually carried out at a site different from contractor's workplace, in a contract. In execution of a job, the job is usually carried out at the contractor's workplace.
- A contract and a job are differentiated on the basis of size and time taken also. Contracts are usually larger and take longer time compared to jobs.
- In a contract, most of the costs are of direct nature, unlike in a job.
- In costing a contract, each contract is treated as a cost unit while in job costing, there can be more than one cost units.

Types of Contracts

- **Fixed price:** Under this type of contracts, the price is not dependent on any factor like materials, labour, time etc. but is a fixed total amount.
- **Cost plus:** Under this type of contracts, the contract price is based on the costs actually incurred, plus a percentage profit or fixed profit. This is used in those contracts whose exact cost cannot be correctly estimated at the time of starting a work. In this type of contracts, the customer may use the services of an auditor to examine the contractor's **contract costs, and may not allow some of them.**
- **Time and material:** This is similar to the cost plus arrangement, except that the contractor includes a profit into its billings, rather than being given a specific profit. In this arrangement also, the customer may verify all the costs in detail.

Progress Payments and Retention Money

- When a contractor undertakes to execute a large contract for a customer, the two parties agree on the terms of reimbursement to the contractor. As a contract involves considerable period of time, large amount of contractor's working capital may get stuck up if there is no periodic payment by the customer. **Thus, it is always suggested to have a system of progress payments.** Normally, this progressive payment is based, at least in part, on the costs incurred by the contractor in execution of the contract. Therefore, the contractor must keep a track of the costs associated with the execution of that contract to justify its billings to the customer.
- The progress billing is normally decided by the experts, such as **architects, engineers, and surveyors etc.**
- Based on this certificate, the proportionate billing is done by the contractor.
- **Retention money** is normally an integral part of every contract. **The customer keeps some amount of money, out of the progressive bill payments, with himself as retention money/security deposit, to ensure that the work is carried out as per the plan agreed to in the contract and that there are no defects in the end work.**
- The amount is used to compensate the customer for any **shortcomings in execution of contract by the contractor.**



- The retention money is given back to the contractor by the customer after examining the quality of the work after the contract is fully executed.
- **Retention money is aimed at providing inspiration to the contractor to provide quality work.**

Escalation Clause

- As a contract is spread over a long period of time, the contractor runs the risk of price escalation of input costs. Therefore, an escalation clause is normally included in the contracts to safeguard the contractor against any likely changes in the prices of material and labour.
- This clause provides that in case prices of materials, labour etc. specified in the contract, change beyond a specified limit over the prices prevailing at the time of signing the contract, during the execution of the contract, the contract price will be suitably adjusted.
- This clause may be useful in safeguarding the interest of the customer also in case of decline in the prices of material, labour etc. which is highly unlikely in present inflationary environment.

Profit on Incomplete Contracts

- As a contract is spread over a long period, the contract work may not be complete during an accounting period.
- Financial accounting normally recognises profit when the goods are sold. But, it may not be fair to adopt this principle in case of contracts, because it will result in low or no profit during the accounting periods in which the contract is continuing and abnormal profit in the accounting period in which the contract is finished.
- It is therefore, necessary to determine the profit relating to a contract for each accounting period during which the contract is under execution.
- AS 7 and Ind AS 115 also recognise this principle and provide guidelines in this respect.
- While precise calculation of profit on an incomplete contract is difficult due the uncertainties involved during the time remaining for completion of the contract, the broad principle applied can be as under:

Profit to date = (Cost of work completed/ Total estimated contract cost) * Estimated contract profit.

For arriving at the cost of work completed, a contract account is maintained.

Illustration

In a factory, refining the groundnut oil, total production of refined oil during the month was 1000 ton. The unrefined oil used in the production was 1020 ton. This loss of 20



ton was considered to be a normal process loss. If the total cost during the month, including the cost of unrefined oil used was ₹ 10 crore, what is the cost of one ton of refined oil, assuming that no scrap is generated?

Solution:

The total cost during the month = ₹ 10 crore

Quantity of unrefined oil consumed = 1020 ton

Quantity of refined oil produced = 1000 ton

Value of scrap = 0

Cost of one ton of refined oil = $10,00,00,000 / (1020 - 20) = ₹ 1,00,000$ per ton

Abnormal Loss:

- The normal losses are estimated assuming that the production will take place under normal circumstances. However, in practice, the actual losses may be more due to abnormal conditions such as power failures, machine or plant breakdowns, inferior quality of materials, carelessness of workers, accidents etc.
- Such losses are in excess of the estimated normal losses. The difference between the actual losses and the expected normal losses is called Abnormal Loss.

Value of Abnormal Loss = (Total Cost - Scrap Value of Normal Loss) / (Input Units – Normal Loss of Units) × Units of abnormal loss

Abnormal Gain

- If the actual process loss is less than the estimated normal loss, it is called Abnormal Gain.
- Due to the increased efficiency of workers, favourable process conditions or expected loss not materializing.
- Abnormal gain does not mean that the output is more than the input. It only means that the extent of reduction in output quantity, compared to input quantity, which was estimated by us before starting production, **was higher than that actually achieved. Therefore, the abnormal gain is equal to normal loss minus the actual loss.**
- **Calculation:** Gain is not used to reduce the cost of units of production, but is taken into the Profit and Loss A/c.

Work-In-Progress and Equivalent Units

- In process industries, as the production is continuous, there is always some Work-in-Progress at any particular point of time.
- units which are not yet finished are known as Work-in-Progress.



- Also, all these unfinished units may have different stages of completion. Some may be 90% complete while some may be only 10% complete.
- In such a situation, it becomes difficult to assign cost to one unit because though the total cost incurred during the day is known, all units cannot be assigned the same cost.
- **This issue is addressed through the concept of “Equivalent units”.**
- If 60 units are at the stage of 50% completion, we treat them equivalent to 30 fully finished units.
- If 10 units are at the stage of 80% completion, we treat them equivalent to 8 fully finished units, and so on.

Formula

**“Equivalent units” of work in progress = Actual no. of units in progress
x Percentage of work completed**

Inter-Process Profit

- Sometimes, production of a product in process industries, may involve more than one process.
- All these processes are internal, the organisation may not be interested in knowing the cost involved in each stage as marketing decisions are based on the cost of the finished goods only.
- However, sometimes the management may be interested in knowing the cost involved in each stage and the notional profit involved in it.
- The notional profit at each processing stage may be based on current market price or at cost plus an agreed percentage.
- This may be useful in taking a make or buy decision regarding intermediate products.

Joint- Products

- If we examine the working of a petroleum refinery, we will see that while the input is crude oil, the finished goods produced include petrol, diesel, LPG, kerosene and aviation fuel, apart from some minor products called by products) like coal tar, lubricating oils etc.
- There are many such process industries where more than one products of significant proportion and value are simultaneously produced.
- Such products are called joint products.
- As per the definition of CIMA, London, joint products are “two or more products separated in processing, each having a sufficiently high saleable value to merit recognition as a main product.”



By-Products

- When the quantity and sales value of a product, compulsorily produced in a process, is much lower compared to the main products, manufactured in the process, that product is classified as “**by-product**”. These are the products incidental to the production of the main products.
- Taking the same example of petroleum refinery, as above, products like coal tar, lubricating oils are also produced in the refining process of the crude oil.
- But the value and quantity of these products is very small in comparison
- To the value of joint products which are petrol, diesel and LPG.
- By-products usually do not influence the decision regarding manufacture of main products.
- A by-product is different from scrap/waste which is a material of insignificant value.

Accounting for Joint Products

- **Split point** : In the production process, joint products are identifiable only after a stage of common raw material processing is achieved.
- After the split point a joint product may or may not require further processing.
- After the split point, the processing cost of each product is separate and is allocated to that product only

Batch Costing

- The cost accumulation system may not, always, be classified into job costing and process costing.
- If the products have some common characteristics and also some individual characteristics, we may have to use a combination of both the systems.
- For example; a company manufacturing tables manufactures same type of tables except that some tables are given extra polishing.
- In such a case, the costs of common processes through which all the tables pass are calculated by applying the job costing system, while the cost of extra work done on some items is calculated by applying the process costing system in which a product goes to another process centre after completion of previous process.

Features and Applications

- Important features of batch costing system that costing is done not for an individual unit but for a batch of identical units.

The cost of one unit = Batch cost / number of units in the batch.



Illustration

A furniture manufacturer has received order for supplying 100 identical wooden chairs. The company estimates the requirements of materials at ₹ 1,00,000, labour at ₹ 50,000, and manufacturing overheads at ₹ 20,000. As per company's policy, the fixed/non-manufacturing overheads are allocated at 20% of material cost. What will be cost of one table, applying the batch costing system?

Answer

The total variable cost of the batch of 100 tables is $1,00,000 + 50,000 + 20,000 = ₹ 1,70,000$.

The fixed cost allocated to the batch is 20% of ₹ 1,00,000 = ₹ 20,000. Total cost for the batch is ₹ 1,90,000.

So, cost of one table is $1,90,000/100 = ₹ 1,900$.

Batch costing is useful in industries like pharmaceuticals, readymade garments, toys, tyres and tubes etc.

Service Costing

- Service Costing is also known as operating costing. Service costing is a method of costing used by the organisations which provide service rather than produce commodities.
- It is used for establishing costs of services rendered. CIMA London, defines Service Costing as "that form of operation costing which applies where standardized services are rendered either by an undertaking or by a service cost renter with in an undertaking".
- Service costing is used in service organizations like transport companies, utility companies like electricity and water supply, hotels, hospitals, education institutions etc.
- An example of internal services is canteen services.
- When services are provided to outside parties, these are termed as external. For example, hospitals, transport companies, water and electricity supply companies.

Application of Service Costing

- Service costing provides the basis for pricing the services rendered. It helps service sector organisations like hospitals, hotels, transport companies, utility companies etc. Service costing helps an organisation in not only pricing its services but also in tracking and controlling the costs by benchmarking them against standard costs of the industry.

Unit Costing And Multiple Costing



- Unit Costing is used to where the production consists of units which are identical and are normally mass produced.
- Examples are mining, brick making, cement production etc
- Multiple Costing refers to the costing method used in cases where a large variety of articles are produced.
- The difference may be in regard to material required and/or the process involved in manufacturing.
- In such cases, one costing method may not be sufficient.
- Therefore, more than one method of costing may be used to compute the cost of each unit separately.

JAIIB Paper 3 (AFM) Module D Unit 5 – Standard Costing

Definition And Meaning Of Standard Costing

- Standard cost of a product or service refers to the costs expected to be incurred to produce a goods or provide a service under anticipated conditions, keeping in view the prevailing market conditions.
- ❑ **For example:** If we have to construct a residential house of 1000 sq ft carpet area with class I RCC construction, we need not calculate the cost of each construction material, labour etc. The estimate for such Construction is available with the architect/engineer, based on the detailed analysis taking into account the present market rates of all the items.
- This estimate of the cost of constructing our house, before the construction has actually started, is called the standard cost of the house.

The actual cost will be known after the house is actually constructed.

Variance = Actual cost – Estimated/ Standard cost

- The standard cost is valid only over a period of time.
- Depending of inflationary conditions, market forces of demand and supply and various other factors, a periodic updating of the standard cost may be necessary.

Significance/ Advantage Of Standard Costing

Simple and time saving technique:

- Simpler in comparison to other costing techniques
- For example, difficult exercises like time and motion study to decide labour costs are not required be conducted as standard costs are already available. This results in saving time, money and manpower, while using this technique.

Eliminate the sources of inefficiencies:



- As the technique of standard costing involves comparison of actual costs with the estimated costs by calculating the variance, it enables the management to locate and eliminate the sources of inefficiencies and wastages.

Delegation is simple:

- The delegation of authority and fixation of responsibility for each department or individual is relatively simpler in applying this technique.

Greater efficiency:

- As the standards are already known, the operating staff tends to be more competitive to achieve the standards and show greater efficiency.

More realistic:

- Prices based on standard costs are more realistic. If the selling prices are fixed on the basis of actual costs, the market may not accept these. **as it is not concerned with the inefficiencies of any particular producer. The market prefers the product which is available at the competitive price.**

Applications Of Standard Costing

Some of the main applications of standard costing are as under:

- **In Planning:** The production, sales and profit budgets are prepared based on the standard costs.
- It is used for measurement of variances between standards and actuals.
- It is used to identify the areas of inefficiencies so that corrective action can be initiated.
- **Controlling:** It is effective in controlling the actual costs as the management gets timely information about variances at each cost centre.
- It is also used to measure the performance of each cost centre/department.
- It can be used to motivate the workforce to contain the expenses within the set standards. It is also useful in devising an incentive system for the employees to increase productivity.
- It is useful in inventory valuation.

Various Types Of Standards

Suppose, a transport company wants to find out how many kilometres a truck driver can drive in a day. It wants to set an appropriate standard for the purpose of preparing its budgets and to compare the performance of the truck drivers employed by it. The company may fix standards on the basis of performance of a few drivers who have maximum efficiency, have very little idle time, and can work



Basic Standards

- These are the standard which are established for use over a long period of time.
- **ADVANTAGE:** It provides a base over a long period for comparison of actual costs with the same standard.
- **DISADVANTAGE:** Not very useful if frequent changes take place in production methods, price levels, labour conditions and other relevant factors.
- As they may not represent the current costs correctly, their use in practice is limited.

Ideal Standards

- These standards take into account the perfect performance. These standards represent the costs which are achievable under the ideal operating conditions. Hence, these are more idealistic and less realistic.
- As these standards may have an adverse impact on motivation and moral of the workers, their use is also limited in practice.

Currently Attainable Standards

- If frequent changes take place in production methods, price levels, labour conditions and other relevant factors of production, it is advisable to make necessary adjustments in the cost standard also to make it more realistic.
- A current attainable standard is a such an adjusted standard representing certain condition and for certain circumstances prevailing in a certain period.
- These standards are fixed on the basis of scientific studies but adjusted for changes in the subjective factors in current period.
- More realistic to achieve as they take into account normal idle time, **wastages, break-down of machines etc.**
- These standards are neither too easy to achieve nor impossible to achieve.
- Widely used in industry.

Components Of A Standard Costing System

The standard costing system involves the following components:



- Decision on the standard costs of materials, labour and overheads, for the production line
- Decision on the pricing of the products and preparing the budget of sales and profit
- Segregating, ascertaining and recording the actual costs and profits
- Finding out the variances of various cost components
- Analysing the variances and ascertaining the causes of variances
- Initiating corrective actions in areas showing variance

Standard Costs of Materials, Labour and Overheads

Starts with ascertaining the standard costs of the elements of cost i.e. materials, labour and overheads.

As the efficacy depends largely upon the correct estimate of the standard costs, we have to exercise extreme care in deciding these.

Some of the important points in setting the cost standards, are as under:

- Benchmark to be used in ascertaining the standards
- Peculiar operational aspects of the organisation
- Whether the standard to be applied by the organisation is basic, ideal or currently attainable standard
- Proper identification of the cost centres so that the variances may be properly segregated

Standard Cost of Materials

- This relates to the quantities and prices of materials required to be used in producing a product.
- Therefore, we have to set both
 - ✓ Materials Usage Standard and
 - ✓ Materials Price Standard
- ❑ **Materials Usage Standard:** Ascertaining the standard quantities of materials to be used per unit of production.
 - Also the specifications like size, grade etc.
 - Based on an estimated unavoidable wastage, due allowance is made for normal wastage through evaporation, spillage, breaking of parts, generation of scrap in cutting, machining etc.
- ❑ **Materials Price Standard:** Set for the prices of materials used per unit of production.
 - Due consideration is given to the efficiency of functions like purchasing and store-keeping.



- While setting the price standard, we have to keep in mind factors
- ✓ Discount on purchases,
- ✓ Economy of bulk purchasing,
- ✓ Past trend of prices and
- ✓ Anticipated changes in market price of materials required to be used.

Standard Cost of Labour

- **Two factors:** labour time and wage rates.
- Set both the Standard Labour Time and the Labour Rate Standard.
- ❑ **Standard Labour Time :** The labour time required per unit of production. In ascertaining this time, we have to consider the performance of a particular grade of labour required for the particular operation involved in the production process.
- **Setting the standard time of labour:** Standards published by the International Labour Organisation (ILO) or the industry bodies or the time and motion studies conducted by the organisation.
- Past performance with adjustments for change of conditions can also form a basis for setting this standard.
- ❑ **Labour Rate Standard:** To the wage rates estimated to be paid to different grades of labour used for performing particular types of operations in the production process.
- The factors to be considered while setting the standard wage rates, include past and future trends of the labour market, agreement with the labour unions, statutory minimum wages etc.

Standard Overhead Costs

- Overhead costs may be variable costs which depend on the volume of production or, the fixed costs which do not depend on the volume of production but have to be incurred over a period of time irrespective of the production volume.
- We should be able to correlate the work to be done by the service departments to the level of activity of production departments.
- The standard overhead rates for each of the service departments should be ascertained and then applied to various producing departments.
- Make use of past data, suitably adjusted for prevailing conditions and the anticipated future trends, for the purpose of ascertaining the costs of the service departments.
- The standard overhead rates for the producing departments may be expressed as a % of the direct labour costs or, machine hour rate etc.

Setting Standards for Other Costs



- **Other costs:** Administrative costs and selling and distribution costs.
- For setting standards for these costs, we may use past performance data, time and motion studies standards published by industries bodies etc.
- Some of these costs may have a direct relationship with the volume of production. For example, the selling and distribution costs, may largely depend on the sales volume.

Preparing Sales and Profit Budget

NEXT STEP IN PROCESS:

We have to decide on the sales price, based on cost of production, prices of products of the competitors, consumer preference etc.

Sales = sales volume * sales price per unit of the product

- The budget provides the estimates for the entire period for which the budget has been prepared.
- The estimates of sales, costs and profit provide a suitable base to the management to periodically review the actual performance and compare it with the budgeted one.

Variance Analysis

- Variance in standard costing refers to the deviation of actual cost from the standard cost and provides the basis for cost control by initiating the appropriate corrective actions.
- The variances indicate the extent to which the standards set have been achieved.
- Variance analysis is the process of ascertaining the amount of variance and identifying the cause of variance between actual cost and standard cost.

The cost variances can be divided into the following three broad categories, depending upon which cost element is involved:



Material Cost Variance

- The cost of material is a finished product depends on two factors,
- **1st : The quantity of the material consumed**



- 2nd: The price of the material consumed.

So, the variance of the actual cost of material consumed from the standard cost can also be arrived at by these two factors, as under:

Material price variance:

- The cost of the material in the standard cost of the product is estimated by taking the prevailing prices of the material at the time of preparing the estimated.
- These estimates are for a future period and the prices may change during this period.

Illustration

In a furniture manufacturing factory, while estimating the cost of wood and steel which go into producing one table, the cost of material as ₹ 2,000

- After one week, when the review exercise was conducted, it was found that the actual cost of material in each table was ₹ 2,100 against the standard cost of ₹ 2,000.
- It was found out that the quantities of wood and steel, actually consumed were the same as estimated in the standard costing.
- Further analysis revealed that while the price of wood was the same as the standard cost, the price of stainless steel has increased

Wood	Stainless steel
3 cubic feet	5 kg
Rs. 500/ cf	Rs. 100/ kg
1500	500

Wood	Stainless steel
3 cubic feet	5 kg
Rs. 500/ cf	Rs. 120/ kg
1500	600

- ❑ **Possible causes of Material price variance:** Sometimes, the material price variance may not be the result of increase in the market rates alone.
- inefficiency of the purchase department, which has not been able to locate and utilise the most cost effective sources of supply of material or, has failed to take advantage of discount on bulk purchases.



- It is also possible that the inventory control department has not been efficient enough to notify the requirement of material in time resulting in emergency purchases.
- A favourable variance may also require proper scrutiny as it may be a result of purchase of material of inferior quality.

Material usage variance:

- The cost of the material in the standard cost of the product is estimated by taking into account the quantities of material expected to be consumed in production of each unit.
- These estimates may not materialise during the actual manufacturing process.

Illustration

- We will take the same example of the furniture manufacturing factory, taken above.
- When the review exercise was conducted after one week, it was found that the actual cost of material in each table was ₹ 2,100 against the standard cost of ₹ 2,000.

Wood	Stainless steel
3 cubic feet	5 kg
Rs. 500/ cf	Rs. 100/ kg
1500	500

Wood	Stainless steel
3.2 cubic feet	5 kg
Rs. 500/ cf	Rs. 100/ kg
1600	500

- The analysis revealed that while the prices of both wood and steel were the same as contained in the standard cost.
- The consumption of steel was as per the estimates in the standard costing. This caused a variance of ₹ 100 in the total cost of material consumed for each table.
- (It is important to note that the variance should be calculated for each material separately. As in above example, an increase in quantity of wood consumed could be nullified in money terms by a decrease in the quantity of steel consumed. The increased consumption of wood would not have been noticed if separate analysis of both materials had not been conducted).



Possible causes of Material usage variance:

- ✓ Inferior quality of material purchased
- ✓ Theft, pilferage
- ✓ Increased wastage due to careless handling during manufacturing
- ✓ Not following the standard production procedures
- ✓ Changes in quality of the finished goods compared to that envisaged in standard costing

Labour Cost Variance

- Total cost of labour depends on the rate of wages for the labour and the quantity of labour used in manufacturing each unit.

So, the variance of the actual cost of labour from the standard cost, in producing one unit, can also be arrived at by these two factors, as under:

Labour rate variance:

- The variance under this head is caused due to actual wages paid per hour being different from the standard wages per hour estimated in the standard costing.

Illustration

- While preparing the estimates of standard costs, it was estimated that the labour hours required for manufacturing one table
- After one week, when the review exercise was conducted, it was found that the actual cost of labour for each table was ₹ 960 against the standard cost of ₹ 900.
- It was found out that while the actual labour hours for manufacturing each table were 6 hours, same as the estimates in standard costing,

Hours

6 hours

Rs. 150/ hr

900

Hours

6 hours

Rs. 160/ hr

960



The total variance in labour cost, due to this reason will be equal to the variance for one unit multiplied by the total number of units manufactured during the period

Possible causes of Labour rate variance:

- Labour rate variance is, in all likelihood, not a controllable item as it is governed by the factors beyond the control of the management of the individual companies. Sometimes, arise due to new wage agreement with the workers' union while, in the standard costing, the rates applicable earlier may have been taken.
- Another possible reason of the variance could be the wrong estimate of mix of skilled and unskilled labour hours involved in manufacturing, as the rates for both are different.

Labour time or labour efficiency variance:

- The variance under this head is caused due to actual time taken for manufacturing one unit being different from the standard hours estimated in the standard costing.

Illustration

Taking the same example as above, where the labour hours consumed in manufacturing one unit is estimated at 6 hours @ ₹ 150 per hour. When the review exercise was conducted, it was found that the actual cost of labour for each table was ₹ 1,050 against the standard cost of ₹ 900.

Hours

6 hours

Rs. 150/ hr
900

Hours

7 hours

Rs. 150/ hr
1050

The total variance in labour cost, due to this reason will be equal to the variance for one unit multiplied by the total number of units manufactured during the period.

Overheads Cost Variance

The total overhead cost variance is the difference between the actual overhead cost incurred and the standard overhead cost allowed for the actual output achieved.

Overhead cost variance consists of two parts:

- Variable overhead variance



- Fixed overhead variance

Variable Overhead Variance

This also consists of two broad categories, viz.:

- ✓ Variable Overhead expenditure variance
- ✓ Variable Overhead volume or efficiency variance.

Variable Overhead expenditure variance:

This variance is due to actual variable overhead expenditure per hour being more than the budgeted (standard) variable overhead expenditure per hour, while the actual variable overhead hours, consumed in producing one table, are the same as the budgeted (standard) hours.

Illustration

- ❑ In a factory, the cost of each variable overhead hour, for producing one table
- ❑ When the actual performance is reviewed,

Estimated

2 hours

Rs. 300/ hr

600

Actual

2 hours

Rs. 350/ hr

700

Variable Overhead volume or efficiency variance:

This variance is due to actual variable overhead hours, consumed in producing one table, being more than the budgeted (standard) variable overhead hours, while the expenditure per hour is as per the budget estimates.

- **Calculated = Actual fixed overhead expenses - standard (budgeted) fixed overhead expenses.**
- The overall variance figure may not be very useful to identify the area of actual cost increase as increase in one area may be nullified by decrease in expenditure in another area.
- Therefore, we have to further segregate this variance into variances of various sub-areas of fixed overhead costs.



Accounting Treatment Of Variances

- There is no uniform system of maintaining the cost records and making entries under a system of standard costing.

Normally, the cost variances at the end of the accounting period, may be dealt with in any of the following ways:

i) Transfer to costing profit and loss account

ii) Allocation of variances to finished stock, work-in-progress and cost of sales account

iii) Transfer to reserve account

- Under the first method, the stock of work-in-progress, finished goods and cost of sales are maintained at standard cost and variances are charged to costing profit and loss account
- while under the second method, the variances are distributed over the stocks of finished goods, work-in-progress and to cost of sales account in proportion to their respective closing values.
- Under the third method, positive variances are carried forward as deferred credits. These are adjusted against any negative variances in future accounting periods.
- The first method has the advantage of easier inventory valuation, as the valuation is done at standard costs.
- Also, as the variances are separately shown, the management attention and action becomes easier.

Reporting Of Variances To Management

- The basic purpose of standard costing is to identify the areas of inefficiencies, represented through variances, and take the corrective action by the management.
- The action cannot be taken by the management unless the variances are properly reported to them, timely and promptly.
- While devising the system of reporting the variances to the management, we have to keep in mind that the variances can be positive (favourable) or negative (adverse).
- If only the overall picture is presented to the management, the areas of concern may not be highlighted as a favourable variance may hide an adverse variance.
- The top management of the company are concerned with the overall efficiency of the execution of company's plans by the middle and lower levels of management.
- Therefore, the report, submitted to them, should not convey only the net result, but should clearly mention the favourable and adverse variances, separately.



The main details should be highlighted. The following points may be considered to make the reports effective:

- ✓ The reporting should be prompt. Delays in reporting variances, specially the controllable variances, will result in delaying the corrective action by the management.
- ✓ The variances of each cost centre should be correctly separated. If part of a variance attributed to one cost centre is wrongly attributed to or merged with the variance of another cost centre, the report may be misleading.
- ✓ While analysing and reporting the uncontrollable variances, same care should be exercised as while reporting the controllable variances.
- ✓ The forms of reports for variances are to be selected keeping in view the preferences and needs of the management and the company.

JAIIB Paper 3 (AFM) Module D Unit 6 – Marginal Costing

Meaning Of Marginal Costing

- Marginal cost is the cost of producing one additional unit of product or service.
- According to CIMA, marginal costing is the ascertainment of marginal costs and of the effect on profit of changes in volume or type of output by differentiating between fixed costs and variable costs.
- In this technique of costing, only variable costs are charged to operations, processes or products, leaving all indirect costs to be written off against profits, in the period in which they arise.

Thus, marginal costing is the accounting system in which only

- Variable costs are charged to cost units
- Fixed costs are charged to the contribution or profit.

Features Of Marginal Costing

Marginal costing is distinct from other costing techniques. Its unique features can be summarised as under:

- Marginal costing involves both cost recording and cost reporting.
- Under marginal costing, $TC = VC + FC$. Some costs which have features of both fixed and variable costs, are segregated as semi-variable costs.
- Only the average variable cost of a unit is considered as its value.
- Fixed costs are not taken into account for calculating the product cost and are charged to revenue of the period in which they are incurred.
- Marginal contribution of a product or department is taken into account for calculating its profitability.

Advantages Of Marginal Costing



Some of the main distinct advantages of Marginal Costing are as under:

- Marginal costing provides a better and more rational basis for deciding the sales prices of products and services under adverse business environment/recession
- The organisation need not have two separate sets of records as data required for profit planning under marginal costing is easily retrievable from the regular accounting records.
- Break-even point, which is of great importance for any management, can be determined only through marginal costing.
- Marginal costs and contribution figures make easier the relative appraisal of products, territories and various segments of the business.
- Marginal costing offers more effective plans for cost control compared to other techniques of costing.
- The marginal costing effectively emphasises the impact of fixed costs on profits.
- Marginal costing provides a very effective tool to the management to formulate marketing strategies specially under difficult market conditions.

❑ **For example:** Suppose a company producing steel is not able to increase its capacity utilisation beyond 70% as the domestic market is saturated with supply from local producers. The company can export to a neighbouring country but the prevailing price of steel there is less than that in India. The management has to decide whether to export or not at lower prices.

❑ Marginal costing tells what the variable cost of production is, and if the export price is more than the variable cost of production, it may be a good decision to export.

This will have two benefits.

- First, the company will gain at least some "Contribution" as the export price is more than the variable cost.
- Second, the country will gain through increased deployment of labour and narrowing of trade deficit.

Limitations/Disadvantages Of Marginal Costing

Some of the main limitations/disadvantages of Marginal Costing are as under:

- Segregation of costs into fixed and variable costs is not easy as some expenses have characteristics of both and cannot be done with precision. The personal judgement of the accountant comes into play and it may not always be correct.
- The assumption that the fixed costs do not vary at all and the variable costs are 100% proportional to the volume of production, is not realistic.
- In practice, the fixed costs may show an increase if the volume of production increases beyond a certain level, specially if additional plant and machinery is required to be used.
- Similarly, the relationship between the variable costs and the volume may not be linear, specially over a longer period of time.



- Under marginal costing technique, the inventory valuation may become unrealistic as fixed costs are not included in the value of work-in-process and finished goods.
- In case of seasonally sensitive products, this may result in inflated profit during the periods of higher sales and deflated profit during the periods of lower sales.
- The assumption under marginal costing, that the sales price per unit will remain same irrespective of production and sales is not realistic. In practice, too much production and availability of a product may affect its sales value.

Cost-Volume-Profit (CVP) Analysis

- This analysis involves classification of every cost as either a fixed cost or a variable cost.
- A fixed cost is one that is independent of the level of sales.
- For example: insurance cost, salary of permanent staff, rent paid.
- A variable cost is directly related to the level of sales.
- **For example:** cost of materials used in the goods sold, direct labour cost, commission paid on sales.

The basic formula of CVP analysis, when profit, sales volume and costs, all are expressed in money terms, is:

$$\text{Profit} = \text{Sales Volume} - \text{Costs}$$

Who invented this formula may be debatable but, it is certain the first person of the mankind, who started a business, knew it.

The concept of marginal costing has refined this formula as under:

$$\text{Profit} = \text{Sales Volume} - (\text{Fixed Costs} + \text{Variable Costs}) \text{ or,}$$

$$P = (S \times N) - [F + (V \times N)]$$

Where, P = Profit,

S = Sales value per unit

N = Number of units sold

F = Fixed Costs

V = Variable Cost per unit

Illustration:

A firm, manufacturing thermometers, has fixed costs of ₹ 1,00,000 and variable cost of ₹120 per unit. Sales price is ₹160 per unit. During the year, it sold 3000 thermometers. What is the profit of the firm during the year? Applying the CVP analysis, we calculate the profit as under:

$$P = (S \times N) - [F + (V \times N)]$$



$$P = (160 \times 3000) - [1,00,000 + (120 \times 3000)] =$$

$$4,80,000 - (1,00,000 + 3,60,000)$$

$$4,80,000 - 4,60,000 = ₹20,000$$

Break-Even Analysis

The break-even analysis, which is a part of Cost-volume– profit (CVP) analysis, also involves finding correlation between the fixed costs, variable costs, sales revenue and profit. Whenever one unit of the **product is sold, its sales value minus its variable cost provides a surplus which goes** towards meeting the fixed expenses.

This sales value of one unit minus its variable cost is called “**Contribution**” as this is what one unit of the product contributes towards recovering the fixed expenses.

Break-even level is that activity level at which all relevant fixed costs are recovered and there is no profit or no loss. For activity level below the breakeven level, the company will make losses, while above this level it will make profit.

Illustration:

A company manufacturing LED bulbs has the following financial information:

a) Total fixed costs ₹ 2,00,000

b) Sales price per bulb ₹ 60

c) Cost of all direct inputs like material, labour, utilities etc. ₹ 40

d) We have to calculate the Break-even level.

- As the sales price of one bulb is ₹ 60 and its variable cost is ₹ 40, the contribution is ₹ 20 (60-40).
- So, sale of each bulb contributes ₹ 20 towards meeting the fixed cost. We have total fixed cost ₹ 2,00,000. For meeting this cost, we have to sell $2,00,000/20 = 10,000$ bulbs.
- As this activity level of selling 10,000 bulbs, the fixed costs are fully met and there is no profit or loss.
- **The next bulb we sell, results in profit of ₹ 20 as the fixed costs have already been met.**

The break-even point can be expressed in any of the following ways:

- **In number of units: Example:** In the above illustration, the B-E point is 10,000 units.
- **In sales volume in money terms: Example:** In the above illustration, the B-E point is sales volume of ₹6,00,000.
- **In percentage capacity utilisation: Example:** In the above illustration, if the total capacity of the plant is to manufacture 20,000 bulbs per year, the B-E point is 50%. ($10,000/20,000 = 0.5$ or, 50% of the plant capacity).



Applications Of Break-Even/Cost-Volume-Profit Analysis

- In appraising the term loan proposals, the financier expects that the operations will be substantially above the break-even level so that, term loan is repaid within a reasonable period, from the surplus generated.
- If the break-even point of the project is calculated to be very high, say 75%, the margin of safety available to the project to withstand unexpected disruptions, and operate substantially above the break-even level, becomes narrow. The financiers, therefore, prefer projects which have a lower break-even level.
- **Some of the other applications/uses of break-even/CVP analysis are as under:**
 - ✓ **The** management gets a clear idea of the minimum level of activity below which it cannot afford to operate.
 - ✓ It helps in devising an incentive scheme as the management has **clear idea** about impact of increased production on the profit vis-à-vis the cost of incentives.
 - ✓ It helps in comparing the relative profitability of different products.
 - ✓ It helps the management in deciding if the production of a particular component or product is to be outsourced.
 - ✓ It provides a very effective tool to the management to formulate marketing strategies specially under difficult market conditions.

Profit-Volume Ratio & Its Significance

- Profit-volume ratio, known as P/V ratio is an important concept in marginal costing.
- It represents the ratio of each unit's contribution to its sales price.
- It is expressed in percentage terms.
- So, if C is the contribution and S is the sales price per unit,

$$\text{P/V ratio} = (C/S) \times 100$$

Illustration:

If the unit sales price is ₹ 160 and its variable cost is ₹ 120, the P/V ratio will be:

$$\begin{aligned} & [(160 - 120) / 160] \times 100 \text{ (because the contribution of each unit is ₹ 160 - ₹ 120)} \\ & = (40/160) \times 100 = 25\% \end{aligned}$$

- **Significance of P/V ratio:** In a multiproduct company, the P/V ratio of different products gives a clear idea of profitability of each product.
- With further analysis, this can be used by the management to decide about pushing the sales of certain products or repricing certain other products. It is also helpful in decided whether to purchase certain components from outside or continue their in-house production.



Margin Of Safety

- Every business is exposed to the uncertainties of market competition, unexpected disruptions in supply chain or production, disruptions and lock downs of the marketing channel due to strikes or pandemics etc.
- Some disruption is part of the normal risk faced by the businesses in general.
- But if the business declines below a level where there is a loss, such a situation cannot be sustained for a long period, As we have seen above, this level is indicated by the break-even level.
- The gap between the estimated/budgeted level of operations and the break-even level indicates the cushion available to the business for sustaining its operations in times of adversity.
- This is referred to as “**Margin of Safety**”.

It is expressed in percentage terms. In equation form, it can be expressed as under:

$$\text{Margin of Safety} = \frac{[(\text{Estimated sales} - \text{Break-even sales}) / \text{Estimated sales}] \times 100}{}$$

Illustration:

If the estimated sales of a company during the year are ₹ 110 lakh and its break-even sales level is ₹ 70 lakh, the margin of safety is:

$$\begin{aligned} & [(110 - 70) / 110] \times 100 \\ & = (40 / 110) \times 100 = 36.36\% \end{aligned}$$

Absorption Costing

Under marginal costing, only the variable cost is allocated to a product. So, the cost of a finished unit in inventory will include only the direct materials, direct labour, and variable overhead costs. It will not used.

Therefore, the absorption costing is also called full costing or the full absorption costing.

Absorption costing is needed for external financial reporting and for income tax reporting purposes while the marginal costing is mainly useful to the management for decision making and the outsiders may not be much interested in it.

Illustration:

A company manufacturing LED bulbs has the following financial information:

Fixed overhead costs: ₹ 1,50,000

Cost of all direct inputs like material, labour, utilities etc. per bulb: ₹ 40

Variable overhead costs: ₹ 60,000



Total bulbs produced in the year: 15,000

Under marginal costing, the costs allocated to each bulb are only the

variable costs i.e. $40 + (60,000/15,000) = ₹ 44$.

The fixed overhead costs are not included in the product cost.

Under absorption costing, in addition to the variable costs of ₹ 44 per bulb, the fixed overhead cost of ₹ 1,50,000 is also allocated on pro-rata basis i.e. $1,50,000/15,000 = ₹ 10$ per bulb.

So, the total cost of each bulb under the absorption costing is ₹ 54 per bulb.

Effect on stock valuation

- Costs allocated to each unit of the product, under the absorption costing will be more than that under the marginal costing.
- Higher valuation of finished goods
- If there is no change in the inventory of the finished goods, during the year, it will make no difference in the valuation of stocks whether we use marginal costing or the absorption costing.

Effect on profit

- If inventories increase during a period, higher profit will be shown under the absorption costing than marginal costing.
- When inventories decrease, less profits are shown
- The difference in the profit is due to difference in accounting for fixed overhead costs for valuation of finished goods.
- When the entire stock, produced during the year is sold, there is no change in the inventory of finished goods, and so, the profit revealed by both the methods will be same.
- But when sales and production are not same, difference in profit will be shown in the profit and loss account.

Difference Between Absorption Costing and Marginal Costing

BASIS FOR COMPARISON	MARGINAL COSTING	ABSORPTION COSTING
Meaning	A decision making technique for ascertaining the total cost of production is known as Marginal Costing.	Apportionment of total costs to the cost center in order to determine the total cost of production is known as Absorption Costing.
Cost Recognition	The variable cost is considered as product cost while fixed cost is considered as period costs.	Both fixed and variable cost is considered as product cost.



Classification of Overheads	Fixed and Variable	Production, Administration and Selling & Distribution
Profitability	Profitability is measured by Profit Volume Ratio.	Due to the inclusion of fixed cost, profitability gets affected.
Cost per unit	Variances in the opening and closing stock does not influence the cost per unit of output.	Variances in the opening and closing stock affects the cost per unit.
Highlights	Contribution per unit	Net Profit per unit
Cost data	Presented to outline total contribution of each product.	Presented in conventional way.

JAIIB Paper 3 (AFM) Module D Unit 7- Budgets And Budgetary Control

Concept Of Budget and Budgeting

A number of definitions are available to describe a budget. From these various definitions, the following prominent points, about budgets, are highlighted:

- It is a financial plan serving as an estimate of and a control over future operations
- It contains estimate of future costs
- It is a systematic plan for the utilisation of manpower, material or other resources
- It is a plan expressed in money terms/physical units
- It is prepared and approved prior to the budget period (usually a year). and may show income, expenditure and the capital to be employed

The complete process of designing, implementing and operating budgets is called Budgeting.

Types Of Budgets

Budgets may be classified into various categories depending upon the base adopted to prepare it. ***Budgets may be classified on the basis of:***

- The scope of their coverage or the functions covered by them. Examples: Sales budget, Production budget, Overheads budget, cash budget, Production Cost budget, Capital expenditure budget, etc. These are called Functional Budgets.
- the capacity or efficiency to which they are related. Based on this, a budget may be Fixed or Flexible budget.
- The conditions on which they are based. Based on this, a budget may be Basic or Current budget.
- The periods which they cover. Based on this, a budget may be a Long period or a Short period budget.



Preparation and Monitoring Of Budgets

The highlights about the characteristics and preparation and monitoring of various types of budgets are given below:

Functional budgets

Budgets are prepared for each of the various interrelated activities in the organisation. These budgets are then consolidated to show the combined budget for all the activities. This consolidated budget is called the “Master Budget”. Approved budgets for individual functions are called “functional budgets”. **The main functional budgets are:**

Sales Budget:

- Forms the basis for preparing other functional budgets.
- estimate of total sales, expressed in money terms as also in terms of quantity.
- The sales during the budget period (normally one year), are estimated taking into account various internal and external factors.
- **Internal Factors:** Present production capacity of the company, expansion plans, development of new products, pricing policy etc.
- **The external Factors:** Competition in the market, growth of economy, Consumer preference, Government policies, etc.

Production Budget:

- It contains the estimated production quantities of various products during the budget period.
- This is an offshoot of the sales budget and depends on the decision taken by the management regarding the sales estimates of various products.

Production Cost Budget:

- As per the components of cost of products, this budget may be a combination of three budgets, viz., Materials, Labour and Overhead costs budgets.

Cash Budget:

- This budget contains the detailed estimates of cash inflows (receipts) and cash outflows (payments) periodically.
- For this, the budget period is further sub-divided on quarterly, monthly or even weekly basis.

Capital Expenditure Budget:

- The Capital expenditure budget details the plan of the proposed expenditure on fixed assets to enhance the capacity and efficiency of production process of the organisation.
- Capital expenditure is a continuous process in any organisation and is planned through a long-term budget.



- Capital forecasts should be made for a number of years. As the capital budget affects the cash budget also, normally, a short-term forecast to cover the general budget period is also prepared along with the long term capital expenditure plan.

Master budget:

- The Master budget is prepared by consolidating various functional budgets like the sales budget, production budget, production cost budget, purchase budget etc.
- It is not a simple consolidation but a coordinated consolidation of various functional budgets.
- This is the budget which is finally approved, adopted and employed by the organisation.
- The Master budget is very important for successful financial planning and control in the organisation.

Fixed and Flexible Budgets

The characteristics of a fixed budget are;

- It does not change with the level of activity actually attained. In practice, however, a fixed budget is revised if the business conditions undergo a basic change or if, due to any reasons, actual operations are widely different from the planned ones.
- It is designed for a specific planned output level.
- It is not adjusted to the actual level of activity at periodic reviews which compare the budgeted and actual costs.
- Normally, fixed budgets are established for a shorter period of time during which the actual output and the budgeted output are not anticipated to differ much from each other.

The characteristics of a flexible budget are;

- It recognises different cost behaviour patterns.
- It is designed to change as volume of output changes.
- It is prepared in such a manner that it gives the budgeted cost for any level of activity.
- It recognises the difference between fixed, semi-fixed and variable costs and changes with the actual activity level attained.

Basic and Current budgets

Basic budgets:

- Basic budget is prepared for use over a long period of time without any change.
- This is attainable only under standard conditions as current conditions are not take into consideration for preparing this budget.

**Current budgets:**

- Current budget is prepared for use over a relatively shorter period of time and takes into account the current conditions. without any change.
- As the target laid down in the current budget take into account the current conditions, it is considered to be more useful than the basic budget.

Long-term or Short-term budget**Long-term budget:**

- A budget which is prepared for a period longer than a year is, normally considered to be a long-term budget.
- As the period is long, the precise details of various items are not included in this budget. It is more helpful in business forecasting and forward planning.
- For example, a Capital expenditure budget contains planning for a period beyond one year. Similarly, a research and developments budget involve strategic planning over a longer period.

Short-term Budget:

- A budget which is prepared for a period of up to one year is, normally considered to be a short-term budget. It emphasises on the micro aspects of the business rather than the long term strategic planning of the organisation.
- A short-term budget is not in contradiction to the long-term budget but is fits into it.

Budgetary Control System

The CIMA, London, defines Budgetary control as “the establishment of budgets, relating the responsibilities of executive to the requirements of a policy and the continuous comparison of actual with budgeted results either to secure by individual action the objectives of that policy or to provide a firm basis for its revision”.

This definition implies that a budgetary control system involves:

- Preparing and approval of budgets
- Comparing actual attainments with the budgeted figures
- Secure control over performance and costs in different parts of a business by taking corrective action and remedial measures or revision of the budgets, if considered appropriate.

While budgeting involves planning for a future period, budgetary control involves continuous comparison of actual results with the budgets and taking appropriate remedial action promptly.

Budgetary control is a logical extension of the budgets. The budget involves fixing of targets, in the form of specific tasks, and the budgetary control involves collection of



information regarding actual performance, its comparison with the targets and reporting these comparisons to the management for their action.

In short, budgetary control means laying down in monetary and quantitative terms, what exactly is expected to be done over the budget period and then to monitor the actual results so that they do not diverge from the planned ones.

The main advantages of a budgetary control system are as under:

- It enhances the probability of achieving the planned objectives of the organisation expressed through the budget.
- It leads to optimum utilisation of limited resources available to the organisation.
- It leads to better coordination amongst various functionaries of the organisation.
- It encourages the culture of proactive thinking and actions as the targets are known to the functionaries.
- It leads to delegation of authority while inculcating the culture of accountability.
- It makes performance evaluation of various functionaries more transparent.

The main shortcomings/limitations of a budgetary control system are as under:

- The comparison of actual achievement with the budgeted figure may, sometimes, lead to conflicts specially when the budgeted figure is estimated on unrealistic presumptions and is far from reality.
- The budgeted figures are for a future period (normally one year). The business conditions may change too fast to keep these figures relevant. For example, the Covid pandemic has caused an unprecedented business turmoil over a short period of time and this has upset the budget estimates of many organisations.
- The personal/human aspect is often neglected in formation of budgets and their monitoring. The monetary and quantitative aspects of the business often prevail at the cost of personal/human considerations.
- Like any other control, the budgetary controls are also not liked by many persons. They consider these as blocks in the way of their creativity and innovative skills.

Implementation Of Budgetary Control System

- The Budgetary Control System of a business organisation depends on its size, nature of business, objectives and its peculiar control needs.
- No two organisations can be expected to have the same structure of their Budgetary Control Systems. Still, there are a few common things amongst the Budgetary Control Systems of various organisations.

The following are the usual components of a Budgetary Control System.

Organisation Chart:

This chart shows the functional responsibilities of each functional executive, the delegation of authority to him and his relative position with other functional heads.



Budget Centre

- A budget centre means a section of the organisation with clearly defined functions.
- The functions are as per the budget.
- This centre is monitored for the purpose of budgetary control.
- The actual performance of a budget centre is recorded under the budgetary control and the variance from the budgeted figure is reported to the management.

Budget Manual:

- Setting out instructions and guidelines relating to the preparation and use of budgets, is known as the budget manual.
- Pertain to forms and records, responsibilities of persons, the procedures to be followed and the time schedules to be followed etc.
- The intention behind the budget manual is to lay down in unambiguous terms the procedures to be followed by the executive so that, there is no confusion or resentment regarding these, in future.

Budget Committee:

- These budget centres or functionaries are inter-related and budget for each cannot be set in isolation. They have to consult each other before finalising the budget.
- For example; The sales promotion department may plan a budget for promoting new products but it may turn out that the production department will not be ready to produce these in near future.
- Unless there is co-ordination between the two departments, a realistic budget for the organisation will not be finalised.
- The budget committee consists of the representatives of various departments of the organisation. This committee co-ordinates in preparing and finalising the budget.

Budget Controller:

- The function of the budget controller is to bring together and co-ordinate the various functions involve in preparation of the budget.
- He mainly carries out the function of compiling various types of information for the purposes of preparation of realistic budgets and proper reporting.

Budget Reports:

- The budget reports contain the comparison of actual performance with the budgeted one.
- These reports are submitted periodically and regularly to the management.
- The budget reports are submitted irrespective of whether the variance is positive or negative.



Zero Base Budgeting

- Zero base budgeting is budgeting from the beginning without any reference to any base.
- For example: A company, which has achieved a sales level of ₹ 50 Crore, may budget for a 10% increase in sales for the next year. In this process a base of ₹ 50 Crore has been used to form the budget.
- In Zero base budgeting, the process starts from the scratch and the potential of the company is judged without any constraint of the past data.
- It is based on the premise that every rupee of expenditure requires justification.
- This is a deviation from the traditional budgeting approach where an expenditure of previous year is automatically incorporated in new budget proposals and only the quantum of increment is subjected to discussion.

Programme Budgeting

- A budget prepared for a specific activity or program is called a Programme Budget.
- Includes the estimates/targets related to the functions pertaining only to that specific activity or programme.
- For example: a management institute, conducting a special programme for middle-level executives of large companies, prepares a budget of revenue and expenditure of conducting only that programme, rather than having a budget covering all the programme of the Institute.
- Another example of programme budgeting are specific programmes like safety drive, conducted by a Government body. By looking at a Programme Budget, it can be easily found out, in considerable detail, what precisely will be carried out, at what cost and with what expected results.

Performance Budgeting

- According to National Institute of Bank Management, Mumbai, performance budgeting technique is the process of analysing, identifying, simplifying and crystallising specific performance objectives of a job, to be achieved over a period, in the frame work of the organisational objectives, and the objectives of the job.
- The performance budgeting is characterised by its specific stress on the performance of every unit of the organisation. direction towards the business objectives of the organisation.
- It reflects both the input of resources and the output of services for each unit of an organization.



- It is widely used in Government agencies to show the link between allocation of funds and the outcome of services provided by the government agency.
- The performance budgeting lays stress on the achievement of specific goals, by a unit of the organisation, over a specific period of time.
- Preparation of periodic performance reports is an essential part of this.
- These performance reports compare budget and actual performance and the corrective steps are taken if so needed
- The performance budgeting has certain limitations. These include difficulty in correctly segregating programmes and activities, lack of standard methods of evaluation of different schemes, the results being unmeasurable etc.
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