

LESSON 1

NATURE, SIGNIFICANCE AND SCOPE OF FINANCIAL MANAGEMENT

Q: Discuss nature, significance and scope of Financial Management? (DEC-1998-12MARKS)/JUNE-1999-12MARKS)/(DEC-2001-10MARKS)	
“Finance”	Finance refers money required for any activity whether for economic or non economic.
Financial Management	The task of providing funds needed by the business or enterprise on terms that are most favorable in the light of its objectives.
	- Financial Management deals with ➤ Procurement of funds and ➤ Their effective utilizations in the business and concerned with ➤ Investment, Financing and Dividend decisions in relation to objectives of the company.
The point of view of a corporate unit	- Financial management is related not only to ○ fund-raising but encompasses wider perspective of managing the finances for the company efficiently
Precise Definition	- Financial Management, to be more precise, is, thus concerned with • Investment, • Financing and • Dividend decisions in relation to objectives of the company.
Key elements of Financial Management	<pre> graph TD Planning --> ResourceAllocations[Resource Allocations] ResourceAllocations --> ManagingPerformance[Managing Performance & Resources] ManagingPerformance --> Reporting Reporting --> Planning </pre>
Objectives of Financial Management	• To maximise profit • TO maximise EPS • To minimize cost • To maximise market share • To maximise current value of company's stock

Q: Discuss different types of financial management Decisions.

JUNE-2005-5MARKS/DEC-2008-5MARKS

Financial Management answers	• Where to invest?	Investment Decisions (I)
	• From where to raise funds?	Financing Decisions (F)
	• How much earning to be retained and how much to be distributed?	Dividend Decisions (D)
	• How to manage working capital?	Working Capital Management Decision (W)
Wealth of company	W = f (I,F,D,W)	
Investment Decisions (I)		
Investment Decisions (I)	• Investment ordinarily means utilization of money for profits or returns • Capital budgeting is a major aspect of investment decision making process. • Investment decisions and capital budgeting are considered as synonymous in the business world. • Investment decisions are concerned with the question whether adding to capital assets today will increase the revenue of tomorrow to cover costs. • Thus investment decisions are commitments of monetary resources at different times in expectation of economic returns in future.	
Investment decisions matters involving the following areas:	➤ Capital budgeting ➤ Cost of capital ➤ Measuring risk ➤ Management of liquidity and current assets ➤ Expansion and contraction involving business failure and re-organizations ➤ Buy or hire or lease an asset.	
Factors Affecting	➤ Cash flow of projects ➤ Cost of capital ➤ Investment criteria	
FINANCING DECISIONS (F)		
Financial decision making is concerned	➤ More and more with the questions as ○ To how cost of funds be measured? ○ Proposals for capital using projects be evaluated, or ○ How far the financing policy influences cost of capital? or	

	○ Should corporate funds be committed to or withheld from certain purposes and ○ How the expected returns on projects be measured?
Decisions to be taken?	➤ What should be the proportion of equity and debt in capital structure? ➤ From which source the equity and debt should be raised? ➤ From which source the debt should be raised?
Factors	○ Risk ○ Cost ○ Control ○ Financing leverage ○ Flexibility ○ Flotation cost ○ Legal framework
DIVIDEND DECISIONS (D)	
Decisions:	○ The financial manager must decide ○ whether the firm should distribute all profits or retain them or ○ Distribute a portion and retain the balance.
Factors	○ Financial requirement of company ○ Stability of dividend ○ Capital market considerations ○ Bonus shares ○ Inflation
Working Capital Management Decisions(W)	
Known as :	"Short term Decision"
Components of Working Capital	○ Inventory management ○ Receivable management ○ Cash management
Inventory Management	○ When to place an order? ○ How much to place an order?
Receivable management	○ To whom credit is given? ○ How much amount of credit is given? ○ For how many days credit is given?
Cash management	○ Excess cash- Where to invest? ○ Inadequate cash- From to finance deficit?

Q: Write short note : On DECISION CRITERIA with reference to Financial Management Decisions

Decision criteria depends upon	➤ The objective to be achieved through the instrumentality of decision making process. ➤ The main objectives which a business organization pursues are Maximization of return and Minimization of costs.	
Fundamental principles	1. The Bigger and Better principle; 2. A Bird in Hand is Better than Two in the Bush principle.	
	The Bigger and Better principle	Bigger benefits are preferable to smaller ones;
	A Bird in Hand is Better than Two in the Bush principle	Early benefits are preferable to later benefits
Criteria for decisions:	➤ Urgency ➤ Pay back ➤ Rates of return ➤ Undiscounted benefit-cost ratio ➤ Discounted benefit-cost ratio ➤ Present value method ➤ Present value method	

Q: Discuss Briefly Objectives Of Financial Management Profit Maximization vs Wealth Maximization (JUNE'2003- 5MARKS) / (JUNE-2006-5MARKS)/JUNE-2007-5MARKS

Two alternative objectives a business firm can pursue	(a) Profit maximization; (b) Wealth maximization	
Profit Maximization	➤ It ensures that firm utilizes its available resources most efficiently under conditions of competitive markets. ➤ It ignores social responsibility	
	Criticism	1. It is vague conceptually. 2. It ignores timing of returns. 3. It ignores the risk factor. 4. It may tempt to make such decisions which may in the long run prove disastrous. 5. Its emphasis is generally on short run projects. 6. It may cause decreasing share prices. 7. The profit is only one of the many objectives and variables that a firm considers. 8. It is unrealistic, difficult and immoral

Wealth Maximization	Value maximization	➤ Maximize value of firm ➤ Maximize shareholders value ➤ Maximize share price	
	Grounds for wealth maximization	• It is consistent with the object of maximizing owner’s economic welfare. • It focuses on the long run picture. • It considers risk. • It recognizes the value of regular dividend payments. • It takes into account time value of money. • It maintains market price of its shares. • It seeks growth in sales and earnings	
Profit Maximization vs. Wealth Maximization			
Goals	Objective	Advantages	Disadvantage
Profit maximization	Large amount of profits	1. Easy to calculate profits 2. Easy to determine the link between financial decisions and profits	a) Emphasizes the short term b) Ignores risk or uncertainty c) Ignores the timing of return d) Requires immediate resources
Shareholder wealth maximization	Highest market value of common stock	a) Emphasizes the long term b) Recognizes risk or uncertainty c) Recognizes the timing of returns d) Considers return	• Offers no clear relationship between financial decisions and stock price • Can lead to management anxiety and frustration

Q: Write short note on Economic Value Added(EVA)-(DEC-2006- 5 MARKS/DEC-2005-5MARKS/DEC-2009-5MARKS/JUNE-2009-4MARKS)	
Approach Developed by:	• Stern Stewart Approach • EVA approach is also known as “Stern Stewart Approach”
Meaning	• Surplus left after making appropriate change for capital employed in business • It is also known as “Economic Profit Model”
Focus on	• Expense recorded in accounting records • Opportunity cost of capital • Which equates spread between return on invested capital

	and cost of capital
Basic principles	Value of company = Amount of capital invested +/- Premium or discount Adjusted Firms create value for its shareholders if NOPAT is exceeding after tax cost of capital invested.
Formula	EVA= NOPAT – [Cost of Capital × Capital employed] Or EVA= Capital Employed (r-c) where, r= NOPAT/Cap employed Or EVA= [PAT + I(1-t)] – [Cost of capital * capital employed] Or EVA= PAT – (Ke * Equity)

Q: Write short note on relationship between value of firm-risk and return	
Proper balance between the considerations of risk and return‘	The financial manager tries to achieve the proper balance between the considerations of risk and return‘ associated with various financial management decisions to maximise the market value of the firm
Golden Rule	Higher the return, other things being equal, higher the market value; Higher the risk, other things being equal, Lower the market value‘.
Diagrammatic Presentation	The diagram illustrates the relationship between various financial decisions and the firm's market value. On the left, three boxes labeled 'Investment Decisions', 'Financing Decisions', and 'Dividend Decision' have arrows pointing towards a central box labeled 'Return'. To the right of 'Return' is a box labeled 'Risk', connected to 'Return' by a vertical double-headed arrow. Both 'Return' and 'Risk' have arrows pointing towards a final box on the right labeled 'Market Value of firm'. A curved arrow labeled 'Trade off' connects 'Return' and 'Risk', indicating a trade-off between the two.
Decision criteria	Liquidity Profitability Efficiency Solvency

Q: Write short note on Financial Distress and Insolvency

(JUNE-2007-5MARKS)/(JUNE-2009-5 MARKS)/(JUNE-2008-5MARKS)

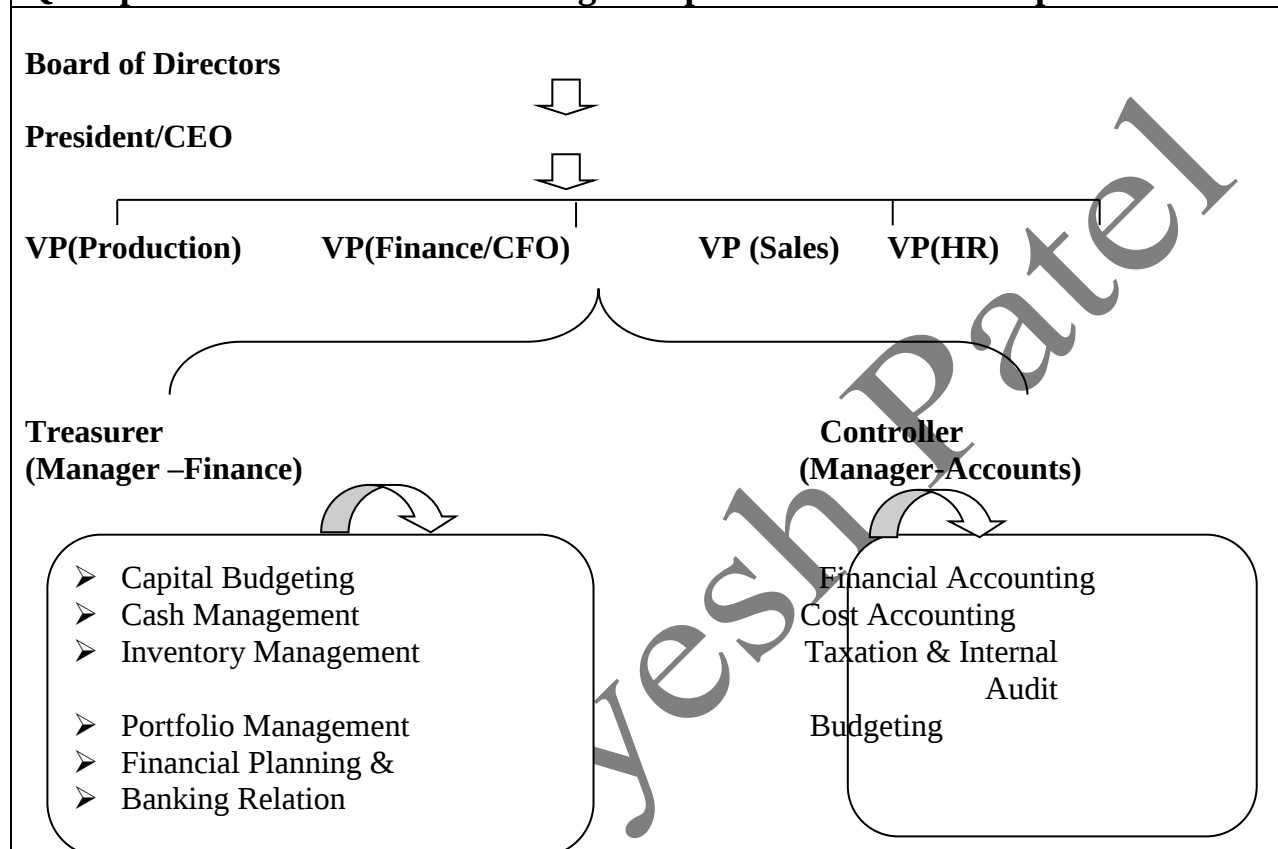
Introduction	Generally the affairs of a firm should be managed in such a way that the total risk– business as well as financial – borne by equity holders is minimised and is manageable
Meaning of Financial Distress	• A condition where a company cannot meet or • has difficulty paying off its financial obligations to its creditors. • The chance of financial distress increases ➤ When a firm has high fixed costs, ➤ illiquid assets, or ➤ Revenues that is sensitive to economic downturns.
How arises?	In managing business risk, ➤ The firm has to cope with the variability of the demand for its products, their prices, input prices, etc. It has also to keep a tab on fixed costs. As regards financial risk, ➤ High proportion of debt in the capital structure entails a high level of interest payments. ➤ If cash inflow is inadequate, the firm will face difficulties in payment of interest and repayment of principal. If the situation continues long enough, a time will come when the firm would face pressure from creditors. ➤ Failure of sales can also cause difficulties in carrying out production operations. The firm would find itself in a tight spot. ➤ Investors would not invest further. Creditors would recall their loans. Capital market would heavily discount its securities. ➤ Thus, the firm would find itself in a situation called distress. ➤ It may have to sell its assets to discharge its obligations to outsiders at prices below their economic values i.e. resort to distress sale. ➤ So when the sale proceeds is inadequate to meet outside liabilities, the firm is said to have failed or become bankrupt or (after due processes of law are gone through) insolvent.

Q: Brief note on Functions of Finance Manger: JUNE-2002-10 MARKS

Primary	➤ Estimate capital requirements ➤ Investment Decisions ➤ Financing Decisions ➤ Dividend Decisions ➤ Working Capital Management Decisions ➤ Financial Control
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Others	➤ Ensuring optimum level of inventories ➤ Effective and efficient utilization of funds ➤ Keeping track of stock exchange quotations and behavior of share prices.
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Q: Explain finance function in Large Corporate Business Enterprise.



Q: Financial Management as Science or Art.

Meaning:	➤ Theory of systematic knowledge it known as science. ➤ Application is known as Art.
Financial Management as "Science"	➤ Theory of financial management is based on certain systematic principles, some of which can be tested in mathematical equations like the law of physics and chemistry ➤ The use of computers, operations research, statistical techniques and econometric models find wide application in financial management as tools for solving corporate financial problems like budgeting, choice of investments, acquisition or mergers etc. ➤ This takes the financial management nearer to treatment as a subject of science.
Financial Management as "Art"	➤ When the question of choice to make selection out of the alternative results arises the subject matter becomes an art requiring human skills for value judgment. ➤ For example, in planning function there are certain goals,

	which may be short-term goals or long-term goals. ➤ Each falls within the area of art
Financial Management as “Science” as well as “Art”	➤ According to George A. Christy and Peyton Foster Roden (Finance: Environment and Decisions) knowledge of facts, principles and concepts is necessary for making decisions but personal involvement of the manager through his intuitive capacities and power of judgments becomes essential. ➤ This makes financial management and managing a company’s finances both an art and a science.
Subject matter	➤ If involvement to techniques – science ➤ If the skills are required to be interpreted- Art. ➤ If techniques for analytical purposes are used-science ➤ If choice in appreciation of the results made - Art.
Conclusion: There is a mixture of science as well as art.	➤ Thus, in the entire study of financial management whether it is related to investment decision, financing decisions i.e. deciding about the sources of financing, or dividend decision, there is a mixture of science as well as art.

Q:Discss Financial Sector – Role And Functions DEC-2009-5MARKS

Introduction	➤ The financial sector plays a major role in the mobilization and allocation of savings. ➤ Financial institutions, instruments and markets which constitute the financial sector act as conduit for the transfer of financial resources from net savers to net borrowers.	
Functions	Liability-asset transformation	• Accepting deposits as a liability and converting them into assets such as loans
	Size-transformation	• Providing large loans on the basis of numerous small deposits
	Maturity transformation	• Offering savers alternate forms of deposits according to their liquidity preferences.
	Risk transformation	• Distributing risks through diversification which substantially reduces risks for savers which would prevail while directly in the absence of financial intermediation
Efficiency in financial sectors	Operational efficiency	• It relates to transaction costs.
	Allocation efficiency	• It deals with the distribution of mobilized funds among competing demands
Evaluation criteria for efficiency	➤ The soundness of the appraisals as measured by the level of overdue, ➤ The resource cost of specific operations, ➤ The quality and speed of delivery of services.	

Q: Financial Sector Reforms in India: Philosophy and Strategy	
key areas of reforms:	• Reforms of structure of financial systems; • Policies and Regulations to deal with insolvency and illiquidity of financial intermediaries; • The development of markets for short and long term financial instruments; • The role of institutional elements in development of financial systems; • The links between financial sector and the real sectors, particularly in the case of restructuring financial and industrial institutions or enterprises. • The dynamics of financial systems management in terms of stabilization and adjustment, and • Access to International Markets.
Pre-requisites for Reforms in Financial Sector	• Macroeconomic stabilization • Prudential regulation • Government implementing and execution.

Q: SALIENT FEATURES OF FINANCIAL SECTOR REFORMS IN INDIA	
Categories of Financial sector reforms	The financial sector reforms in India could be analyzed under three broad categories.
[1] Policy Framework	• Interest Rate Policy (PLR/Repo & Reverse Repo) • Pre-emption of deposits (SLR/CRR) • Directed Credit (Priority Sector -40%)
[2] Improvement in Financial Health	• The introduction of prudential norms and regulations aimed at • ensuring the safety, • soundness of the financial system, • Imparting greater transparency, • Accountability in operations • Restoring the credibility of and confidence in the Indian financial system.
	Non performing Assets are categorized under • Standard assets, • Sub-standard assets, • Doubtful assets, • Loss assets.
[3] Institutional Strengthening	• Recapitalization • Improving the quality of loan portfolio • Instilling a greater element of competition and • Strengthening the supervisory process

**Q: FINANCIAL SECTOR LEGISLATIVE REFORMS COMMISSION, 2011
JUNE-2001-12MARKS/DEC-2002-10MARKS**

Introduction	• The Finance Minister in his Budget speech of 2011-2012 announced the formation of FSLRC to rewrite and harmonize financial sector legislations, rules and regulations. • The resolution notifying the FSLRC was issued by the government in March 2011. Chaired by Justice BN Srikrishna, the Commission has a diverse mix of expert members drawn from the fields of finance, economics, public administration, law.
Purpose • Review & Recast • Consumer Protection • Fair disclosure & investors redressal • The Financial Regulatory Architecture Act	• The Commission was formed to review and recast old laws in tune with the modern requirements of the financial sector. • FSLRC plans to eliminate 25 of the current 61 laws that currently govern the financial sector and amend many others. • The Commission has proposed an Indian Financial Code Bill 2013 to create a Unified Financial Authority (UFA) and bring about reforms in financial sector regulations. • The panel suggested that SEBI, IRDA, PFRDA (Pension Fund Regulatory and Development Authority) and the Forward Markets Commission (FMC) be merged under one regulator—UFA. • According to FSLRC, all financial laws and regulators are intended to protect the interest of consumers. • Hence, a dedicated forum for relief to consumers and detailed provisions for protection of unwary customers against mis-selling and defrauding by smaller print etc has been recommended. • The FSLRC report also recommends fair disclosure and redressal of investor complaints by financial service providers. • The proposed regulatory structure will be governed by the Financial Regulatory Architecture Act that will ensure a uniform legal process for the financial regulators

LESSON 2

CAPITAL BUDGETING

Q: Explain the concept “Time Value of Money “
“A rupee today is worth more than a rupee tomorrow.”

Introduction:

- The money which is receivable at present has more value than the money receivable in future.

Value of Money receivable at present = Value of money receivable at future +

Formula:

- FV of money (In case of Simple Interest) = Value of money at present + Interest
= $P(1 + rt)$
- $P(\text{Principal Amt.}) = FV/(1 + rt)$
- Simple Interest = $P \times R \times N$
- FV of money (In case of Compound Interest) = $P(1 + r)^t$
- $P(\text{Principal Amt.}) = FV/(1 + r)^t$
- Compound Interest = FV – Money Borrowed at present (P)

Time Value Adjustment

- Two most common methods of adjusting cash flows for time value of money:
 - **Compounding**—the process of calculating **future values** of cash flows and
 - **Discounting**—the process of calculating **present values** of cash flows.
- **Compounding** is the process of finding the future values of cash flows by applying the concept of compound interest.
- **Compound interest** is the interest that is received on the original amount (principal) as well as on any interest earned but not withdrawn during earlier periods.
- **Simple interest** is the interest that is calculated only on the original amount (principal), and thus, no compounding of interest takes place.

Why Re 1 received today worth more than 1 Re. Received after a time period?

- **Inflation:**
 - Presence of positive rates of inflation which reduce the purchasing power of rupees through time.
- **Opportunity Cost:**
 - A rupee today is worth more today than in the future because of the opportunity cost of lost earnings.
- **Risk of default:**
 - The risk of default or non-performance of an investment, a rupee in hand today is worth more than an expected rupee in the future.

- **Preferences:**
 - Human preferences typically involve impatience, or the preference to consume goods and services now rather than in the future

Q: Define capital budgeting and examine need for capital budgeting.	
Meaning:	• Long term planning for proposed capital outlays (investment) and their financing. • It may also be defined as “the firm’s decision to invest its current fund more efficiently in long term activities in anticipation of expected flow of future benefit over series of years. • Allocation of firm’s capital to different long term assets. • E.g setting up factories, installing machine etc.
Known as	• “Investment Decision” or “Long term Investment Decision”.
Basic features of capital budgeting decisions	• Current funds are exchanged for future benefits • Investment in long term activities • Benefit for the long period of time.
Focus on	• Risk • Growth • Profitability
Need/Importance of capital budgeting	➤ Long term growth and effect ➤ Large amount of funds involved ➤ Risk involved- Careful Evaluation ➤ Irreversible decision ➤ Wear and Tear of old equipment ➤ Obsolescence ➤ Product improvement ➤ Learning curve effect ➤ Expansion ➤ Diversification ➤ Uncertainty and Complex.

Q: Discuss the factors influencing investment decision.	
Factors	[1] Management Outlook [2] Competitor’s strategy [3] Technological changes [4] Market Forecast [5] Fiscal incentives [6] Cash flow and budget [7] Non economic factors [8] Disposal ratio = $\text{Salvage value} / \text{Installed cost}$

Q: List out various types of Capital budgeting decisions.	
On the basis of firm's existence	On the basis of Nature of decision
[1] Cost Reduction decisions: ➤ Replacement decision ➤ Modernization [2] Revenue Expansion Decisions: ➤ Expansion Decision ➤ Diversification Decision ➤ Set up new business.	[1] Mutually Exclusive ➤ For complementary projects ➤ Decision said to be mutually exclusive if two or more alternative proposals are such that the acceptance of one proposal will exclude acceptance of other alternative proposals. [2] Accept- Reject ➤ Independent Project ➤ These are opposite to mutually exclusive decisions. ➤ Decisions don't compete with each other. [3] Contingent Decisions ➤ These are dependent proposals. ➤ Investment in one proposal requires investment in one or more other proposals.

Q: Explain the various steps of capital budgeting process.	
[1] Planning	➤ Identify various investment opportunities. ➤ SWOT analysis. ➤ External and Internal Environmental scanning
[2] Evaluation	➤ Determine inflow and outflow of various investments ➤ Use appropriate techniques like IRR, NPV etc.
[3] Selection	➤ Risk-Return Trade off to various investment alternatives ➤ Comparison of WACOC or COC with Return from various proposals. ➤ Choose or select project which will maximize shareholder's wealth.
[4] Execution	➤ Making an adjustment and arrangement of necessary funds or finance. ➤ Acquire resources. ➤ Implement the project according to time framework.
[5] Control	➤ Obtain feedback Reports like • CAPEX report • Performance report • Internal Audit • Inspection Report ➤ Monitor the implementation of project.
[6] Review	➤ After project is over, review the project

	○ To explain success or failure ○ To generate ideas for new proposals to be undertaken for future projects.
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Q: What is Capital Rationing?

**(DEC-2000-4MARKS)/JUNE-2007-5MARKS)/(JUNE-2010-5MARKS)/
(DEC-2009-5MARKS)**

Meaning:	○ Its process whereby limited funds available are allocated among financially viable project which are not mutually exclusive so as to maximize the wealth of share holders.
Known as	★ <i>“Resources Constraint Situation”</i>
Existence of Capital Rationing	<i>Capital rationing is said to exist if</i> <i>Limited funds are available For investment</i> <i>Not more than 1 Financially viable Project which are not Mutually exclusive.</i>
Techniques	★ Profitability Index and NPV index
Types of capital Rationing	<i>Soft Capital Rationing</i> <i>[Internal Resource Constraint]</i> ▪ If the firm Fix up the maximum amount that can be invested in capital project during given period of time. ▪ Such budget ceiling imposed internally called soft capital rationing.
	<i>Hard capital Rationing</i> <i>[External Resource Constraint]</i> ▪ There may be market constraint on amount of funds available for investment during period. This inability to obtain fund from market due to external factors is called <i>hard capital rationing</i>.

**Q: Explain Hertz’s model to Risk analysis with ref. to capital budgeting.
Or Write short note on “Simulation as a tool of Risk Analysis”**

Meaning:	○ It’s a quantitative procedure, which describe a process ➤ By developing model of that process and ➤ Then conducting series of organized Trial and error Experiments to predict the behavior of the process over time.
Tool of operational research	○ It’s a tool of operational research used for capital budgeting decision. ○ If quantity produced and sold decreased by 1%, NPV falls by developing probabilities profile by random variable.
Steps	1. Define problem to be simulated 2. Formulate method 3. Identify and collect data needs to be tested. 4. Run the simulation

	5. Analyze the result of simulation if desired, change the solution 6. Return to simulation to test new solution. 7. Validate the simulation.
Merits	➤ Simplicity ➤ Testing of alternatives ➤ Alteration of model ➤ Model experimentation ➤ Allows time factors ➤ Anticipation of bottlenecks. ➤ Flexible

Q: Discuss various techniques of capital budgeting for evaluation of project proposals.

Techniques of capital budgeting	
<i>Non Discounted cash flow method</i> [1] The payback period [2] The Average Rate of Return [3] Profitability index or Benefit Cost Ratio	<i>Discounted cash flow method</i> [1] NPV [2] IRR And MIRR

Q: Investment Criteria

Sound investment criteria at least should provide the following:

- Ways to differentiate between acceptable and non-acceptable projects;
- ranking of projects in order of their desirability
- choice among several alternatives;
- a criteria which is applicable to any conceivable investment project independent of others;
- recognizing the fact that the bigger benefits are preferable to smaller one and early benefits are preferable to later benefits;
- Helping to choose among mutually exclusive projects, one which maximizes the shareholders wealth.

Q: Write brief note on Payback period method.

- **Payback** is the number of years required to recover the original cash outlay invested in a project.
- **Equal Cash flow**
 - If the project generates constant annual cash inflows, the payback period can be computed by dividing cash outlay by the annual cash inflow.

$$\text{Payback} = \frac{\text{Initial Investment}}{\text{Annual Cash Inflow}} = \frac{C_0}{C}$$

■ Unequal cash flows

- In case of unequal cash inflows, the payback period can be found out by adding up the cash inflows until the total is equal to the initial cash outlay.
- Suppose that a project requires a cash outlay of Rs 20,000, and generates cash inflows of Rs 8,000; Rs 7,000; Rs 4,000; and Rs 3,000 during the next 4 years. What is the project's payback?
- $3 \text{ years} + 12 \times (1,000/3,000) \text{ months} = 3 \text{ years} + 4 \text{ months}$

Decision Rule

- The project would be accepted if its payback period is less than the maximum or **standard payback period** set by management.
- As a ranking method, it gives highest ranking to the project, which has the shortest payback period and lowest ranking to the project with highest payback period.

Advantages:

- Simplicity
- Cost effective
- Short-term effects
- Risk shield
- Liquidity
- Preferred in case of industries where technological obsolescence comes within short period; say electronic industries

Limitations:

- Cash flows after payback
- Cash flows ignored
- Cash flow patterns
- Administrative difficulties
- Inconsistent with shareholder value
- Ignores time value of money.
- Ignores salvage or residual value
- Ignores the cost of capital

Note:

- The reciprocal of payback will be a close approximation of the internal rate of return if the following two conditions are satisfied:
 - The life of the project is large or at least twice the payback period.
 - The project generates equal annual cash inflows.
- The **discounted payback period** is the number of periods taken in recovering the investment outlay on the present value basis.
- The discounted payback period still fails to consider the cash flows occurring after the payback period

Q: Accounting Rate of Return Method

- The accounting rate of return is the ratio of the average after-tax profit divided by the average investment. The average investment would be equal to half of the original investment if it were depreciated constantly.

$$ARR = \frac{\text{Average income}}{\text{Average investment}}$$

- A variation of the ARR method is to divide average earnings after taxes by the original cost of the project instead of the average cost.
- **Accept the proposal if $ARR > \text{Minimum rate of return (cut off rate)}$**
- **Reject the project if $ARR < \text{Minimum rate of return (cut off rate)}$**

Q: Write a short note on sensitivity Analysis.

Meaning:	○ It shows the measure of sensitivity of decision due to changes in value of one or more parameters. ○ It determines and studies how changes in one variable or value of parameter affect the output of model. ○ It reflects how varying assumption affect investment.
Objective	★ It provides information regarding behavior of measure of economic effectiveness due to change in various value of parameters.
Steps in sensitivity analysis	1. <i>Identification of variables.</i> 2. <i>Evaluation of possibilities.</i> 3. <i>Selection and combinations of variables to calculate NPV.</i> 4. <i>Substitute different variables.</i> 5. <i>Comparison of original Return with Adjusted Rate</i>
According to "Samuel & Wilkies"	★ It reflects "Degree of Sensitivity" / "Magnitude"

Q: Discuss Decision Tree Analysis – A tool of Managerial Decisions".

Meaning:	➤ It's a technique of solving or evaluating a decision making problem by mapping out all feasible alternatives actions, assigning respective weights/Probabilities and evaluating the net effect of different actions at the point of first alternative.
Assignments of Weights/Probabilities	➤ Probabilities are assigned for future uncertain events, for each alternative at each stage, based on chances estimated by firm.
Steps	1. Identification of investment proposals 2. Identification of decision alternatives. 3. Identification of possible outcomes with assigning probabilities. 4. Drawing branches of tree showing decision points. 5. Determination of optimal decisions.

	6. Evaluation of project at the starting point, by analysis of results at each decision points by backward computation.
Merits	★ Eliminate unprofitable investment. ★ Clearly sets assumption. ★ Easier to understand and interpret

Q : Social cost benefits Analysis. (DEC-2002-5MARKS)

Or

There is usually difference between the social and monetary cost/benefits of project. Discuss. (JUNE-2007-5 MARKS)

Meaning	• In evaluation of investment proposals, Return on investment factor is considered dominant. • However, since scarce resource is employed the social impact of investment proposals should also be considered. • Such analysis is known as Social Cost Benefit Analysis (SCBA).
Purpose & Need	• To supplements and strengthen the existing techniques of financial analysis. • Monetary cost benefit analysis fails to consider external effects and do not represent social values. • Taxes and subsidies are monetary costs and gains but these are only transfer payments from social point of view and therefore irrelevant.
Procedure/Steps	1. Determine Problems 2. Ascertain alternative solutions 3. Estimate & Analyze social cost and benefit 4. Appraise Estimated social cost and benefit 5. Decide optimal solutions.
Notes to be considered	■ SCBA is important for private corporations also have moral responsibilities to undertake socially desirable projects. ■ As private enterprise can't afford to lose sight of social aspects of projects.

Q: NPV Vs IRR (DEC-2005-4 MARKS)

Points of Similarities:

- Both consider time value of money.
- Both consider all cash flows over entire life of project.
- Both are consistent with objective of wealth maximization.
- Both are equivalent as regards to decision rule of conventional investments.

Points of Differences:

- Evaluation of Non conventional investments.
- Reinvestment rate
- Multiple/Negative rate.

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LESSON-3

CAPITAL STRUCTURE DECISIONS

Q: WHAT DO YOU UNDERSTAND THE TERM CAPITAL STRUCTURE?

Meaning & Introduction:

- Reflection of overall investment and financing strategy of firm.
- It reflects constitution or break up of capital employed by firm.
- Capital structure should have **Quasi-Equity**.
- It is also known as “**Financial Structure**”

Composition of Debt & equity

- It refers to determine relative proportion of equity and debt.

Capital structure decision affects

- Share holder's return and Risk
- Market value of debt.

Features of Appropriate capital structure

- Profitability
- Solvency
- Control
- Flexibility
- Conservatism.

Q: 2 DISCUSS DIFFERENT TYPES OF CAPITAL STRUCTURE?

Types:

- A. Horizontal
- B. Vertical
- C. Pyramid
- D. Inverted Pyramid

Horizontal Capital structure:

- 100% Equity and 0% Debt
- Equity and reserves
- Stable in nature.

Vertical Capital structure

- Pref. Share capital + Debt
- Proportion of Equity and Reserves is less
- Higher Dividend Payout Ratio
- Unstable in nature.

Pyramid Capital structure

- Proportion of Equity and Reserves are higher
- Focus on “Plough back” / “Retention or Reserves”
- It is Risk Adverse.

[3] DISCUSS FACTORS AFFECTING CAPITAL STRUCTURE
--

Basic factors:

- Risk
- Cost and
- Control

Others factors:

- | | |
|-----------------------|-------------------------|
| [1] Financial Risk | [8] Nature of business |
| [2] Trading on equity | [9] Market conditions |
| [3] EBIT-EPS analysis | [10] Flotation cost |
| [4] Cost of capital | [11] Corporate Taxation |
| [5] Fixed obligations | [12] Govt. Policies |
| [6] Flexibility | [13] Purpose of finance |
| [7] Size of company | [14] Period of finance |

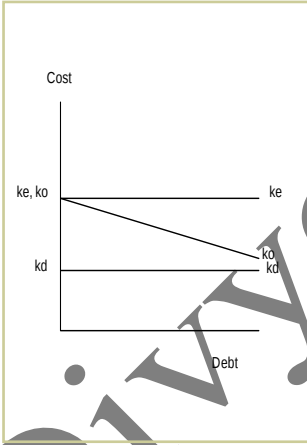
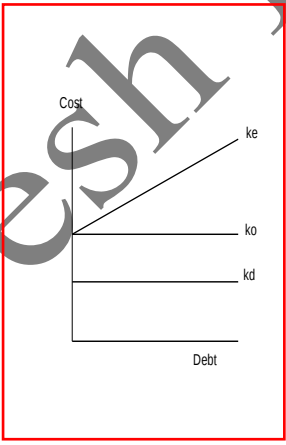
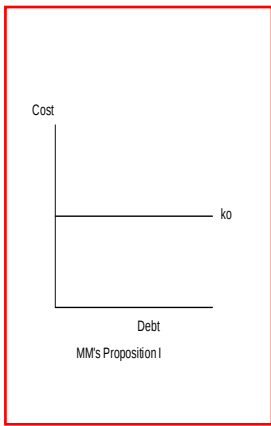
Q: Capital Structure and Optimum Capital Structure DEC-2009-5MARKS/JUNE-2010-5MARKS
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Capital Structure:

- Reflection of overall investment and financing strategy of firm.
- It reflects constitution or break up of capital employed by firm.

Optimum Capital structure:

- When the firm has combination of equity and debt so that wealth of firm is maximized.
- At this level, cost of capital is minimum and market price per share is maximum.
- Optimum capital structure is an ideal situation which can function as benchmark of performance of firm
- While deciding the capital structure, the firm should consider following life cycle
 - Pioneering stage
 - Expansion stage
 - Stabilization stage

Q: 4 EXPLAIN VARIOUS THEORIES OF CAPITAL STRUCTURE.			
Capital structure theories	▪ It explains relationship between cost of capital and value of firm.		
Types of capital theories	1. Net Income Approach (NI) 2. Net Operating Approach(NOI) 3. M.M.Approach 4. Traditional Approach		
Is WACOC independent of capital structure?	Yes	▪ NOI approach ▪ M.M approach	
	NO	▪ NI approach ▪ Traditional approach	
Comparison of various capital structure theory			
Points	NI	NOI	M-M
Is WACOC independent of capital structure?	NO	YES	YES
Can firm change its value and COC by judical mix of debt & equity?	Yes	No	No
Graphical Presentation			 MM's Proposition I
Assumptions	▪ $K_d < K_e$ ▪ No change in Risk ▪ No tax	▪ Constant K_d, K_o ▪ No tax ▪ Neutrali'n	▪ Perfect capital mkt ▪ Homogeneous risk class ▪ To tax ▪ 100% Payout ratio
Can there be optimum capital structure?	Yes	Nothing like an optimum capital structure	No

Q: Differences between financial structure and capital structure**DEC-2006-5 MARKS/DEC-2007-5MARKS-JUNE-2009-5 MARKS**

- Capital structure relates to long term capital deployment for creation of long term assets. Financial structure involves creation of both long term and short term assets.
- Capital structure is the core element of the financial structure. Capital structure can exist without the current liabilities and in such cases;
- Capital structure shall be equal to the financial structure. But we cannot have a situation where the firm has only current liabilities and no long term capital
- The financial structure of a firm is considered to be a balanced one if the amount of current liabilities is less than the capital structure net of outside debt because in such cases the long term capital is considered sufficient to pay current liabilities in case of sudden loss of current assets.
- Components of the capital structure may be used to build up the level of current assets but the current liabilities should not be used to finance acquisition of fixed assets. This would result in an asset liability mismatch.

Q: Weighted average cost of capital vs Marginal cost of capital. JUNE-2009-5MARKS

- MCOC is nothing but WACOC of new or incremental capital using marginal weights.
- It may be defined as cost of raising additional rupee of capital
- Marginal weight represents the portion of each source of new funds which firm intends to employ.
- The problem of choosing between book value weights and market value weights does not arise.
- MCOC is equal to Avg COC where the firm raises funds in proportional manner and components costs remain unchanged.
- Increase in Avg COC is faster than increase in MCOC where components costs start rising.

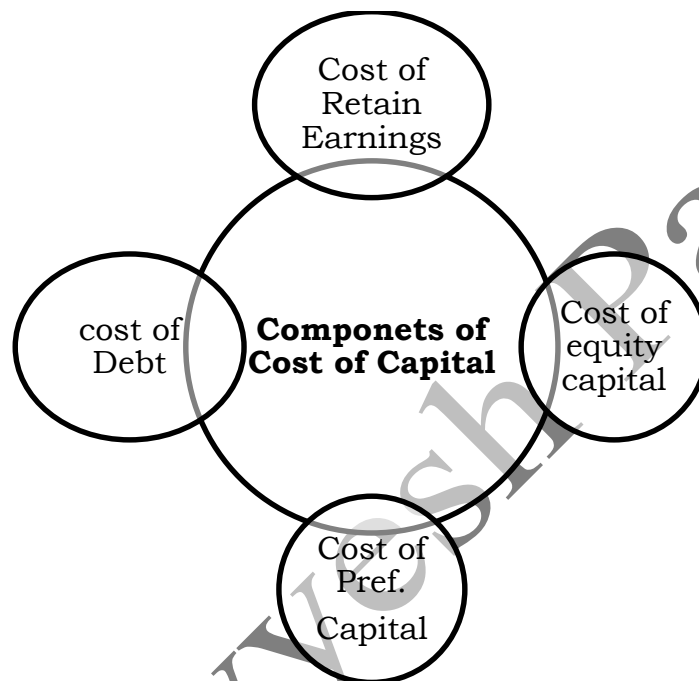
Q: Financial Reengineering vs Financial Restructuring

Financial Reengineering	Financial Restructuring
• Process that seeks to adopt existing financial instruments and to develop new financial instruments to enable financial market more effective. • Innovation and Creativity are two important factors. (Thinking + activity)	• Rearrangement of its financial structure to make company finance more balanced. • A company is required to balance debt and equity and funding resulting deficit.

LESSON-4

COST OF CAPITAL

COMPONENTS OF COST OF CAPITAL



COST OF DEBT

COST OF IRREDEEMABLE DEBT (PERPETUAL DEBT):

$$K_d = \frac{I(1-t)}{SP}$$

Where,

- I = Interest SP = Net Sale Proceed
- SP = F.V + Prem. On issue – Discount – Floatation cost

COST OF REDEEMABLE DEBT

$$K_d = \frac{I(1-t) + (R.V - SP/N)}{(RV+SP/2)}$$

where,

RV = Redeemable Value

Note: Explicit Cost of Pref.sh = Fixed Dividend + DDT

COST OF IRREDEEMABLE PREF.SH (PERPETUAL PREF.SH):

$$K_p = \frac{D_p (1 + D_t)}{SP} \quad \text{Where, } D_p = \text{Pref. Div,} \quad D_t = \text{Dividend Tax}$$

COST OF REDEEMABLE PREF.SH

$$K_d = \frac{D_p (1+t) + \left[\frac{R.V - SP}{N} \right]}{\left[\frac{RV + SP}{2} \right]} \quad \text{where, RV = Redeemable Value}$$

RETENTION RATIO

$$b = \frac{E-D}{D} \times 100 \quad \text{or} \quad b = 1 - \text{Dividend payout ratio}$$

$$\text{Div. Payout Ratio} = \frac{D}{E} \times 100 \quad \text{or} \quad \text{Div. payout Ratio} = 1 - b$$

PRICE – EARNING RATIO [P/E RATIO]
--

$$\begin{aligned} \text{P/E Ratio} &= \text{MPS/EPS} \quad \text{or} \quad 1 / \text{Rate of Return on Retain earnings} \\ &\text{Or} \quad 1 / \text{Earning Yield} \\ &\text{Or} \quad \frac{1}{\text{EPS/ MPS}} \end{aligned}$$

RATE OF RETURN ON RETAIN EARNINGS (EARNING YIELD) – (r)
--

$$\text{Rate of Return on Retain earnings} = \text{EPS/MPS} \quad \text{or} \quad 1 / \text{P.E ratio}$$

GROWTH RATE (g)

$$g = b \times r \quad \text{or,}$$

$$g = (1 - \text{Div.Payout ratio}) \times (1/\text{P.E ratio})$$

EXPECTED DIVIDEND (D1)

$$D1 = D_0 (1+g) \text{ or}$$

where, D_0 = Actual DPS for last yr.

$$D1 = E1 \times \text{Div.Payout Ratio}$$

g = Growth rate

$E1$ = Expected EPS

COST OF EQUITY SHARES

DIVIDEND PRICE APPROACH:DIVIDEND PRICE –GROWTH APPROACH:

$$K_e = D1/P_o \qquad K_e = \frac{D1}{P_o} + g$$

EARNING PRICE APPROACH:**EARNING PRICE –GROWTH APPROACH:**

$$K_e = E1/P_o \qquad K_e = \frac{E1}{P_o} + g$$

CAPITAL ASSETS PRICING MODEL (CAPM MODEL):

$$K_e = R_f + \beta (R_m - R_f)$$

Note: β = systematic Risk

R_f = Risk Free Rate of Return

R_m = Expected rate of Market Return

COST OF RETAIN EARNINGS:

$$K_r = \frac{D1}{P_o} + g$$

STATEMENT SHOWING CALCULATION OF WACOC

A	B	C	D	E=C×D
Sources of Capital	Amount of Source	Proportion of each Source (%)	After tax cost of source	Product
Equity share capital				
Pref share capital				
Debentures				
Retained Earning				
Total				

Q: What is cost of capital? Discuss its relevance.

- Cost of capital:
 - Costs that firms incur in retaining the funds obtained from various sources.
- Relevance:
 - Business should be at least capable of earning so much revenue as to be able to meet its cost of capital and to finance its growth.
 - It is relevant for Capital Budgeting and Capital Structure decisions which are the main area of financial management.
 - In capital budgeting decision, cost of capital may be taken the discounting rate.
 - In capital structure, the cost of capital is an important consideration along with risk.

Q: Factors affecting Cost of debt. What is Explicit & Implicit cost.

- Factors:
 - Fixed interest rate
 - Underwriting commission, Brokerage
 - Discount/Premium on issue/Redemption
 - Income Tax.
- Explicit Cost:
 - Explicit cost= Interest rate + cost of raising deb(i.e. floatation cost)
- Implicit cost:
 - Implicit cost= Cost of increase in expectation of shareholders.
 - It arises [Increase in Debt---→ Increase in Firms Risk -→ Increase in shareholders expectations.]

Q: What is average cost of Capital?

- $WACC = (\text{Proportion of Equity} * \text{Cost of Equity}) + (\text{Proportion of Debt} * \text{Cost of Debt}) + (\text{Proportion of Preference} * \text{Cost of Pref.})$

Q: Cost of Retained Earnings and Cost of Depreciation

- **Cost of Retained Earnings**
 - It is known as 'Ploughing back of Profit' means retention of profit and reinvesting it in company as long term funds.
 - It also involves cost. It is the opportunity cost of dividend foregone by shareholders.

- Since the shareholders generally expect dividend and capital gain from their investment, Cost of retained earnings will be equal to Cost of Equity.(Ke)

➤ **Cost of Depreciation:**

- Depreciation provision may be considered similar to retained earnings having opportunity cost and represent increased stake in firm by its shareholders.
- Proportional combination between cost of debt repaid and cost of retained earnings to calculate cost of capital in form of depreciation provisions.

Q: Du Pont Chart Analysis for Return on Equity.

- Components of Du Pont
 - Net Profit Margin
 - Assets Turnover
 - Equity Multiplier

$$\text{R.O.E} = \text{PAT/Equity}$$

$$\text{R.O.E} = (\text{Net Profit Margin}) * (\text{Assets Turnover}) * (\text{Equity Multiplier})$$

$$= (\text{PAT/Sales}) * (\text{Sales/Assets}) * (\text{Assets/ Equity})$$

Q: Why COC is most appropriately measured on After Tax Basis?

- COC is usually taken as Cut off Rate for the evaluation of Capital Exp project and for this the yield to shareholders is the relevant figure, which can be paid only out of after tax profits.

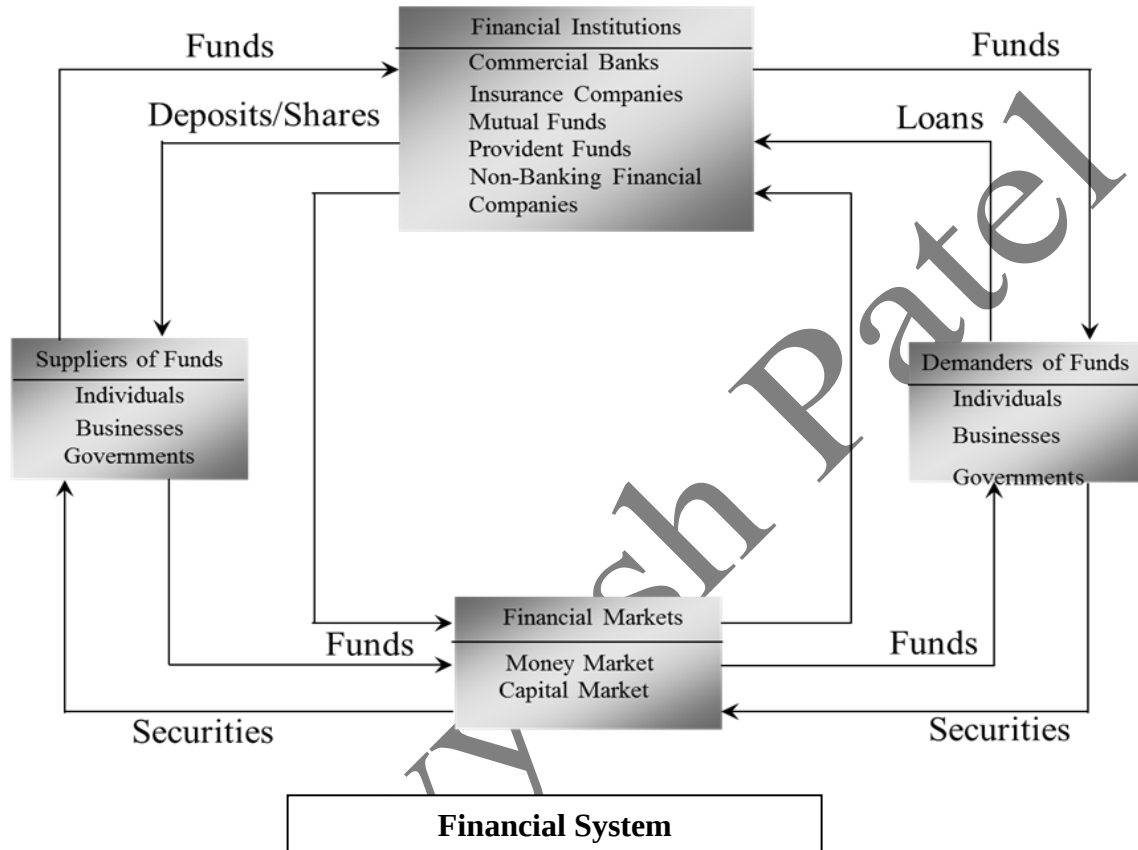
Q: Book Value weights and Market value weights.

- **Book value weights:**
 - Value as per balance sheet.
 - Book Value for
 - Equity = (FV of Equity share * No of Equity Shares)
 - Pref. = (FV of Pref Share * No of Pref Shares)
 - Deb. = (FV of Deb. * No of Deb.)
 - Retained Earnings- (Same as appeared in Balance sheet)
- **Market Value Weights**
 - Value represents market Quotations.
 - MV for
 - Equity = (Current MP of Eq. share * No of equity share)
 - Pref = (Current MP of Pref. share * No of pref. share)
 - Deb = (Current MP of Deb * No of Deb)

LESSON-5

FINANCIAL SERVICES

THE FINANCIAL SYSTEM



Meaning of Financial Services

- The financial system – consisting of a variety of institutions, markets, and instruments related in a systematic manner – provides the principal means by which savings are transformed into investments.
- “Mobilizing and allocating savings.”

Q: Functions of financial services

1. **Facilitating transactions** (exchange of goods and services) in the economy.
2. **Mobilizing savings** (for which the outlets would otherwise be much more limited).
3. **Allocating capital funds** (notably to finance productive investment).
4. **Monitoring managers** (so that the funds allocated will be spent as envisaged).
5. **Transforming risk**

Q: Characteristics and Features of Financial Services

1. Customer-Specific
2. Intangibility (focus on the quality and innovativeness)
3. Concomitant (Production of financial services and supply of services-Co incidental)
4. Proper synchronization of demand and supply
5. People based services
6. Market Dynamics

Q: Sources of Financial services

Fund Based /Asset Based	★ Leasing ★ Hire Purchase ★ Consumer Credit ★ Factoring ★ Forfeiting ★ Housing finance ★ Insurance ★ Venture capital Finance
Fee Based	★ Merchant Banking ★ Issue Management ★ Merger and Acquisition ★ Corporate Restructuring ★ Credit Rating

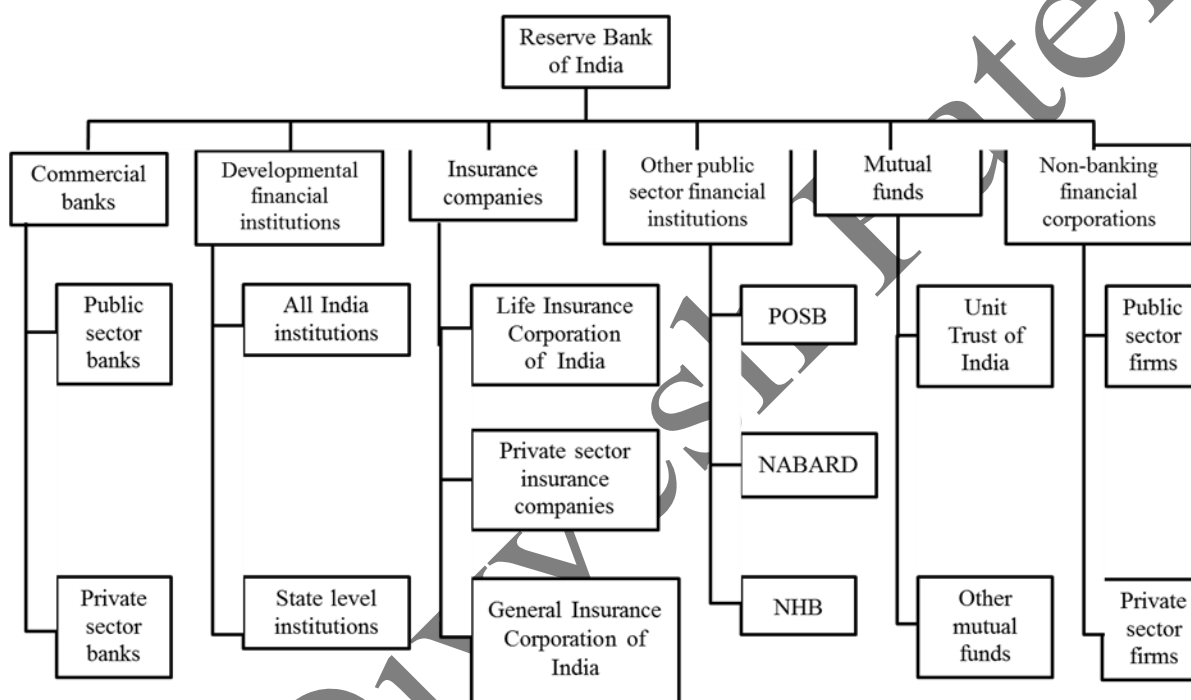
Q: Evolution process of Financial service Industry.

Structural evolution:	★ Post Industrial Phase ★ Pre Industrial Phase <u>Note:</u> Shift from functional to customer orientation services.	
Situations:	Rudimentary Finance	Absence of any financial instrument
	Direct Finance	Procurement of finance
	Indirect Finance	Transform Primary to secondary securities.
Current Scenario	★ Considered as “ Departmental Stores ” ↓ “ Financial Conglomeration ”	
Financial Services		
Corporate		Personal
★ Fund based ★ Non fund based ★ Investment Banking ★ Merchant Banking ★ Financial enggienring		★ Transactional ★ Wealth Accumulation ★ Geneal P.F/Pension ★ Insurance etc.

STRUCTURE OF FINANCIAL SERVICES SECTOR

- Financial services industry encompasses a considerable range and depth of activities and includes not only the traditional financial intermediaries such as
 - commercial banks,
 - insurance companies,
 - mutual funds and unit trusts
 - the special purpose financial institutions or development banks,
 - regulatory bodies and divisions etc

FINANCIAL INTERMEDIARIES



Q: Merchant Banking Services

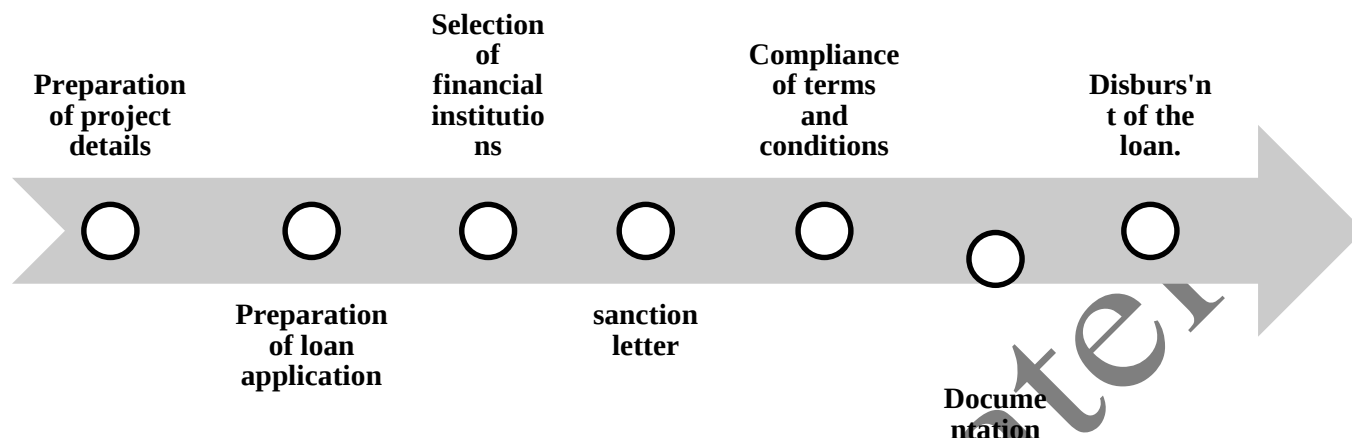
Meaning	• A merchant banker is any person who is engaged in the business of issue management either by making arrangements regarding selling, buying or subscribing to securities or acting as manager/consultant/advisors or rendering corporate advisory service in relation to such issue management
Historical Background	• The formal beginning of the merchant banking services in India began in 1967 when the Reserve Bank of India provided license to the Grindlays Bank • The State Bank of India followed the same in 1972.
Types of MB	• Institutional based merchant banking organizations • Banker based organizations • Portfolio management • The private merchant banking organizations
Services	• corporate counseling/ project Counseling

offered by MB	• Pre-investment studies • Capital re-structuring, Credit syndication and project finance; • Issue management and underwriting • Portfolio management • Non-resident investment counseling and management • Acceptance credit and bill-discounting • Advising on mergers, amalgamations and take-overs, arranging off-shore finance; • Fixed deposit brokering and relief to sick industries
Pre Issue Obligations	• Due diligence, requisite fee, submission of documents, appointment of intermediaries, underwriting, making public the offer document, dispatch of issue material, no complaints certificate, mandatory collection centers, authorized collection agents, advertisement for rights post issues, appointment of compliance officer, and an abridged prospectus.
Post-issue obligations	• Allotment procedure, post-issue monitoring reports, redressed of investors' grievances, coordination with intermediaries, post-issue advertisements, basis of allotment in over-subscribed issues, other responsibilities and a certificate regarding realization of stock invests.
Regulatory Framework	• SEBI (Merchant Bankers) Regulations, 1992 notified by SEBI in exercise of the powers conferred by Section 30 of SEBI Act, 1992

Q: Syndication of loan:

- A financial institution will take up the responsibility of appraising the project and taking up the entire loan within a specified time framed.
- This is generally done by taking part of exposure and offering the balance to other financial institutions and banks.
- Generally, the other financial institutions don't take joint risk on the loan.
- Risk lies with the first financial institutions.
- The borrower/customer will provide the financial institution concerned with syndication fees.
- **Consortium:**
 - All lending institutions have to take a joint risk on the loan.
 - It is considered time consuming as each member of the consortium has a say in appraisal process.

The process of loan syndication involves the formalities



Estimating Capital Requirements

- Preliminary expenses covering cost of promotion, incorporation etc.;
- Cost of fixed assets covering acquisition of land, construction of building, roads, railway siding, procurement of plant and equipment, furniture and fixtures or other miscellaneous fixed assets;
- Cost of current assets, particularly inventory, receivables etc.
- Cost of acquiring know-how covering expenses incurred on foreign or Indian technicians, training of personnel in India and abroad etc.;
- Basis for provision of contingencies and margin money requirements for working capital;
- Cost of financing, brokerage, underwriting

Syndication for working capital requirements

Bank borrowings may comprise of two broad categories viz.,

- fund based advances consisting of cash credit facility, bill finance, overdraft facility, demand loan; and
- Non fund facilities consisting of letter of credit, letter of guarantee etc.

Q: Securitization of Debt/Special Purpose Vehicle (SPV)

- It is the processes by which financial assets (e.g. loan receivables, mortgage backed receivables, credit card balance, trade debtors etc) are **transformed into securities**.
- It is a mode of financing, where in securities are issued on the basis of package of assets (Asset pool).
- In the method of recycling of funds, assets generating steady cash flows are packaged together and against this assets pool, market securities can be issued.
- **The SPV is typically a marginally capitalized entity with narrowly defined purposes and activities and usually has independent trustees/directors.**

Securitization can be classified into two categories:

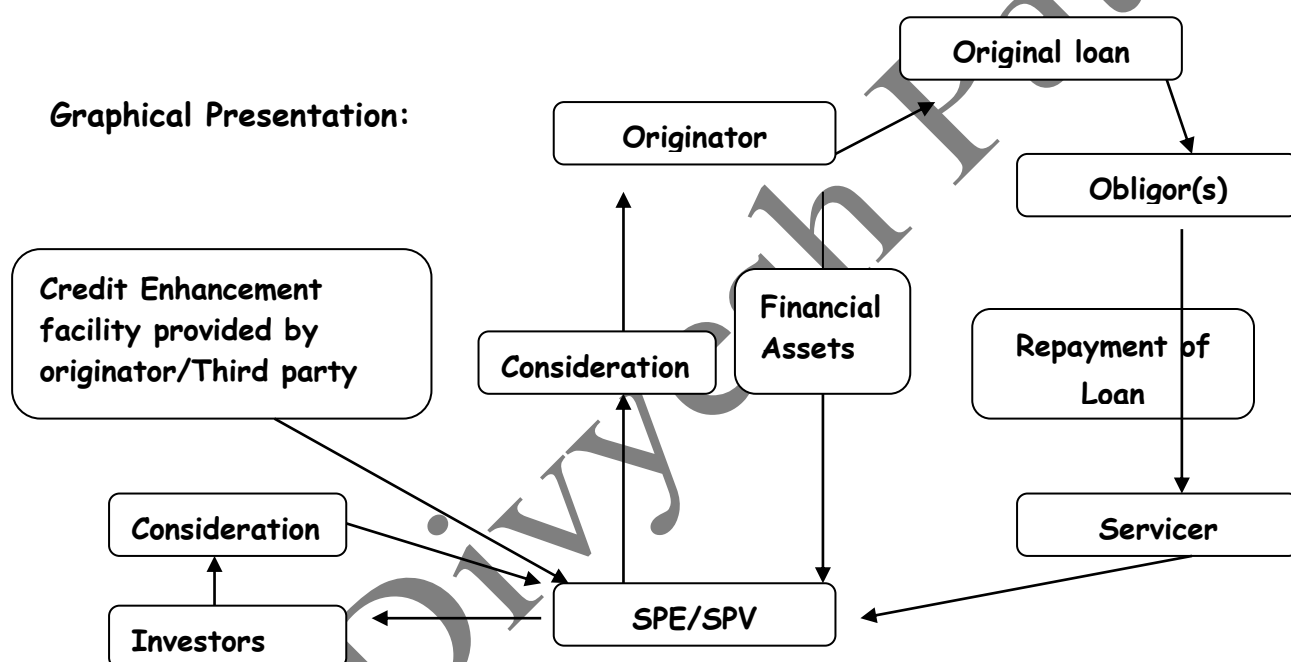
(1) Asset backed securitization (ABS)-

- Securitization of receivables which “exist” i.e. the obligation of the Obligor to make payments is not dependent on further action or performance by the Originator. E.g. Mortgage-backed receivables, auto receivables securitization and hire purchase rental receivables.

(2) Future Flow securitization (FFS)-

- Securitization of receivables which are to be generated in the “future” i.e. the obligation of the Obligor to make payments depends on further substantial performance by the Originator.
- E.g. Typical FFS receivables are trade receivables (long term), electricity receivables, and toll road receivables.
-

Graphical Presentation:



Q: Housing Finance Services

National Housing Bank	
Other Players	• CG/SG • HUDCO • Insurance organizations • Banks • Co Operative banks • Specialized housing financial institutions
HOUSING DEVELOPMENT FINANCE CORPORATION LIMITED (HDFC)	• In 1977, HDFC was incorporated with the main objective of promoting home ownership by providing long-term loans. • It was promoted as a company with an initial share

	capital of Rs. 10 crores Objectives: • To increase the number of residential houses in the country by providing housing finance in a systematic and professional manner. • To promote home-ownership. • To increase the flow of funds to the housing sector. • To strengthen housing finance by improving the domestic financial market and financial services. • To develop a close relationship with individual households, i.e., providing direct housing loans to individuals. Types of Loans offers: 1. For dwelling house 2. Extension of existing houses 3. Purchase of land 4. Repairs/renovation 5. Large-scale construction 6. Facility to weaker sections Special Features of HDFC ★ Loans are granted for individual's upto a maximum of Rs. 1 crore, repayable within 20 years. ★ Home improvement loan can be obtained either individually or jointly, where loan is sanctioned upto Rs.1 crore. ★ Short-term building loan can also be applied for a maximum period of 24 months. ★ HDFC home equity loan is available for the owners of current property.
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Q: National Housing Bank (NHB)	
Introduction	★ The Government of India accepted the recommendations and introduced the National Housing Bank Bill in the winter session (1987) of Parliament. ★ The bill was passed in Parliament and, with the assent of the President of India on December 23, 1987, it became an Act of Parliament.
The vision statement of NHB	★ "NHB ensures a sound and healthy housing finance system in India through effective regulation and supervision of housing finance institutions
The principal objectives	★ To promote a sound, healthy, viable and cost-effective housing finance system ★ To promote a network of dedicated housing finance institutions to adequately serve various regions and different income groups. ★ To augment resources for the sector and channelize them for housing. ★ To make housing credit more affordable.

	★ To regulate the activities of housing finance companies based on regulatory and supervisory authority derived under the act. ★ To encourage augmentation of supply of buildable land and also building materials for housing and to upgrade the housing stock in the country.
--	---

Q: Impediments in Housing Finance

- ★ **Archaic Laws:**
 - There are certain legislations that hamper the growth of housing finance in India. For instance, the archaic Urban Land Ceiling Regulation Act (ULCRA)
- ★ **Lack of Clear Title:**
 - Another major issue confronting Indian housing is the lack of clear title to property. Around 90 percent of all the land in India does not have a clear title.
- ★ **High Stamp Duty:**
 - The cost of transferring land, stamp duty and registration charges payable are prohibitively high.
- ★ **Obsolete Rental Laws:**
 - The rental laws must be revised to protect the owner and the property from the tenant.
- ★ **Foreclosure Laws:**
 - The foreclosure laws are obsolete and outdated.
 - The laws for nonpayment of Equated monthly Installment (EMI) and consequent foreclosure and repossession of the property must be revised.
- ★ **Inadequate Building Codes and Standards:**
 - The system needs to be made more transparent and direct, so that there is no room for ambiguity and confusion.
 - Presently too much of paperwork in the form of different permissions that needs to be obtained from too many authorities.
- ★ **Inadequate Development and Planning**
- ★ **Inadequate Infrastructure**

LESSON 6

PROJECT PLANNING

What is Project Planning?	
Meaning	- Project planning defines the project activities and end products that will be performed and describes how the activities will be accomplished. - The purpose of project planning is to define each major task, estimate the time and resources required, and provide a framework for management review and control.
Project Plan:	<i>A project plan is a formal, approved document that is used to manage and control a project.</i>
Steps in the Project Planning Process	- Define the technical approach used to solve the problem. - Define and sequence the tasks to be performed and identify all deliverables associated with the project. - Define the dependency relations between tasks. - Estimate the resources required to perform each task. - Schedule all tasks to be performed. - Define a budget for performing the tasks. - Define the organization used to execute the project. - Identify the known risks in executing the project. - Define the process used for ensuring quality. - Define the process used for specifying and controlling requirements.
Strategic Planning	- Business Needs - Budgeting Estimates - IT Strategy - Resources
Concept Definition	- Concept Paper - Project Categorization Oversight - Pre-project Team Org - Cost Constraints - Cost benefit analysis - Make or buy decisions - Critical success factor
Planning Risk ID	- Statement of Work - Risk Assail - Pre-Project Team Org - Project Budget Estimates - Resources identification - Draft Project plan
Project start up	- Detailed schedules - Detailed WBS

	• Estimate to complete. • Quality plan • Technological approach
Project performance	• Planned vs Actual Staffing • Risk and mitigation list • Quality audits
Project Close Out	• Lesson learned • Team award • Value admin • Final cost

Project Appraisal	
Meaning	• Appraisal means to critically examine with a focus of attention on specific aspects, areas of operations, and target goals to ensure the conformity of the performance to the proposed goals. • Basic task before the appraiser is to study progress in term of cost productivity ratio, time schedule relationship, inter-action between different agencies, and performance of personnel in terms of their responsibilities and objectives of the company.
project Appraisal by Financial Institutions: Lending Policies and Appraisal Norms of Financial Institutions IDBI, IFCI, ICICI	• The project profile, its reliable and formulation and project report; • The promoters capacity and competence; Viability Tests: (A) Technical Aspects (B) Financial Aspects (C) Economic Aspects (D) Commercial Aspects (E) Managerial Aspects (F) Environment, Energy management (G) Societal Aspects.
Technical Aspects of Project Appraisal	• Feasibility of the selected technical process and its suitability under Indian conditions • Scale of operations • Location • Plant and Equipment and their specifications • Plant Layout • Facilities for the supply of water, power and fuel • Facilities for disposal of effluents and also of the by-products • Availability and economies of the means of transport in the region be examined and ensured. • Arrangements for securing the technical know-how and training of personnel and • Labor who have to operate in the shop-floor be certified and ensured. • Construction Schedule

	• Cost Estimates • Technical Know-how
The Financial Aspects of Project Appraisal	• Amount of resources required to bring the project into operation and the sources from which finance will be obtained. • Equity-Debt ratio. • Profitability and cash flow. • Security. • Benefit cost ratio • Sensitivity analysis • Simulation analysis
Economic Aspects of Project Appraisal	• The objective of economic appraisal is to examine the project from the entire economy's point of view to determine whether the project will improve the economic welfare of the country (1) Economic Rate of Return (ERR) (2) Domestic Resources Cost (DRC) (3) Effective Rate of Protection (ERP)
Social/distributive Appraisal	• Measurement of the distribution of the income • Identification of the impact on the basic needs objectives of the society Steps: 1. Conducting financial analysis 2. Economic analysis 3. Appraisal of distributional effect of the net benefits (externalities) of the project
Environmental Aspects	• The emphasis in EIA (Environmental Impact Assessment) is on those consequences of the projects which are relatively well known and whose magnitudes can be easily estimated. • Conditional, uncertain or probabilistic aspects of the impacts are not considered. Another elaborate analysis called Environmental risk Assessment (ERA) is used to differentiate a new and additional analysis in which the probabilistic element is explicitly addressed.
Organizational and Managerial Aspects	• The organizational and managerial aspects evaluate the managerial capacity of the organization or the entrepreneur, responsible for implementing the project
Commercial Aspects Including Marketing	• Commercial aspects of a project include arrangement for supply of inputs for the initiation and operation of the project and marketing of outputs.

Q: Lending Policies and Appraisal Norms By Financial Institutions And Banks

- Lending policy and appraisal norms by banks are decided by the Reserve Bank of India. RBI has issued a master circular i.e. Master Circular DBOD. No. Dir. BC. 6/13.03.00/2010-11 dated July 1, 2011 suitably updated by the instructions issued up to June 30, 2012. Banks determine their lending policies on the basis of RBI circulars/instructions and government policies reflecting
- **Safety,**
- **Liquidity,**
- **Profitability, and**
- **Risk diversion.**

Q: LOAN POLICY

LPC	• The Lending Policy Committee (LPC) of individual banks prepares the basic Lending policy of the Bank, which has to be approved by the Bank's Board of Directors.
The loan policy typically lays down lending guidelines in the following areas:	– Level of Lending-deposit ratio – Targeted portfolio mix – Hurdle ratings – Loan pricing – Collateral security

LESSON - 7 DIVIDEND POLICY

Q: Discuss the factors affecting dividend decisions June'06/ Dec'09	
Legal	➤ The purpose of legal restriction is to ensure that the payment of dividend may not cause insolvency.
Financial:	➤ A firm can pay dividend only to the extent that it has cash to disburse; ➤ A firm can't pay dividend when its earnings are in accounts receivables or firm does not have adequate liquidity.
Nature of Business	➤ A company having a business of the nature which gives regular earnings may like to have a stable and consistent dividend policy. ➤ Industries manufacturing consumer/consumer durable items have a stable dividend policy.
Existence of the Company	➤ With their long standing experience, the company may have a better dividend policy than the new companies.
Type of Company Organization	➤ The type of company organization whether a private limited company or a public limited company affects dividend decisions. ➤ In a closely held company, a view may be taken for acquiescence and conservative policy may be followed but ➤ for a public limited company with wide spread of shareholder, a more progressive and promising dividend policy will be the better decision
Financial Needs of the Company	➤ Working capital position of a company is an important condition that affects the dividend policy as no company would declare a dividend to undermine its financial strength and threaten its solvency.
Market Conditions & Economic Constraints	➤ Business cycles, boom and depression, affects dividend decisions. ➤ In a depressed market, higher dividend declaration is used to market securities for creating a better image of the company. ➤ During the boom the company may like to save more, create reserves for growth and expansion or meeting its working capital requirements.
Financial Arrangement	➤ In case of financial arrangements being entered into or being planned like merger or amalgamation with another company, liberal policy of dividend distribution is followed to make the share stock more attractive.
Change in Government Policies	➤ For example, higher rate of taxation will definitely affect company earnings and carry impact on dividend decisions. ➤ Besides, fiscal, industrial, labor, industrial policies do affect in different magnitude the dividend decisions of individual corporate enterprises.

Discuss legal constraints on payment of dividend. (June'05)

Or

Discuss in the light of statutory framework existing in India.

Dividends to be paid only out of profits	➤ A company to declare and pay dividend only out of profits for that year arrived at after providing for depreciation in accordance with the provisions of Section 205(2) of the Act. ➤ The dividend can also be declared out of moneys provided by the Central Government or a State Government for the payment of dividend in pursuance of guarantee given by that government. a) to provide for depreciation out of the profits of the financial year or out of the profits of any other previous financial year or years before declaring dividend for the particular financial year; b) To set-off the amount of loss of previous financial year against the profit of the company in that year as per the provisions of the Companies Act, 1956. c) Central Government may allow company to declare or pay dividend for any financial year out of the profits of the company for that year or any previous financial year without providing for depreciation
Unpaid Dividend to be transferred to Special Dividend account	• Dividends are to be paid within 30 days from the date of the declaration. • If they are not paid or claimed the company is required to transfer the unpaid or unclaimed dividend to Unpaid Dividend account within seven days of the expiry of the period of thirty days. • The company is required to open this account in any scheduled bank as required under Section 205-A of the Companies Act, 1956
Section 206	Dividend is to be paid only to registered shareholders or to their order or their bankers because Section 206
TRANSFER OF UNPAID/UNCLAIMED DIVIDEND TO INVESTOR EDUCATION AND PROTECTION FUND	• Any money transferred to the unpaid dividend account of a company in pursuance of Section 205A(2) which remains unpaid or unclaimed for a period of seven years from the date of such transfer to unpaid dividend account, shall be transferred by the company to the Investor Education and Protection Fund established under Sub-section (1) of Section 205C
CORPORATE DIVIDEND PRACTICES IN INDIA	➤ Section 10(34) of Income Tax Act, 1961 stipulates that the income from dividend will not be taken into account for the purpose of

	calculating the total income of a person i.e. income from dividend is exempt in the hands of shareholders. ➤ Corporate dividend practices are based on conservative management policies.
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Q: Discuss the different types of dividend policies. (Dec'10)	
Types of Dividend policies	(1) steady dividend at the present level (2) steady dividend at a lower level (3) steady dividend at a higher level (4) Dividend fluctuating with earning (5) low regular dividend plus extra dividends (6) Elimination of dividend entirely
Stable Dividend Policy (June'04)/(Dec'07)	➤ When dividends are increased, strenuous efforts are made to maintain them at increased new level. ➤ This stability could take three forms: 1. Keep dividends at a stable rupee amount but allow its payout ratio to fluctuate, or 2. Maintain stable payout ratio and let the rupee dividend fluctuate, or 3. Set low regular dividend and then supplement it with year end "extras" in years when earnings are high. 4. As earnings of the firm increase the customary dividend will not be altered but a year end "extras" will be declared.
Residual theory of dividend policy (Dec'12/	➤ According to Ezra Solomon, dividend policy is strictly a financing decision; ➤ The payment of cash dividend is a passive residual. ➤ If the opportunities abound, percentage of payout is likely to be zero; on the other hand, ➤ If the firm is unable to find out profitable investment opportunities, payout will be 100 per cent. ➤ The theory implies that investors prefer to have the firm retain and reinvest earnings rather than pay them out in dividends if the return on re-invested earnings exceeds the rate of return the investors could themselves obtain on other investments of comparable risks.

Q:Write short note on different dividend models		
Walter model	Developed by:	➤ Professor James E. Walter
	Principle	➤ Market price per share is the sum of the present value of the infinite stream of constant dividends and present value of the infinite stream of capital gains
	Basic Premises:	• Prices reflect the present value of expected dividend in the long run.

		The model operates on the objective of maximizing common stockholders wealth.
	Formulae:	$P = (DIV / k) + \frac{(r / k)}{k} (EPS - DIV)$
	Assumptions	- Internal Financing - Constant Return and Cost of Capital 100% Payout or Retention - Constant EPS and DIV - Infinite Time
	Optimum Payout Ratio	- Growth Firms – Retain all earnings - Normal Firms – Distribute all earnings - Declining Firms – No effect
	Criticism	- No external Financing - Constant Rate of Return - Constant opportunity cost of capital
Gordon' Model	Known as	Dividend Growth Model/Dividend Capitalization Model
	Developed by:	Graham and Dodd Myron Gordon
	Focus on	The model considers the growth rate of the firm to be the product of its retention ratio and its rate of return.
	Basics of model	Market value of a share is equal to the present value of an infinite stream of dividends to be received by shareholders
	Formulae:	$P = E(1-b) / K_e - br$
	Assumptions	- All Equity Firm & No External Financing - Constant Return and Cost of Capital - Perpetual Earnings - No Taxes - Constant Retention - Cost of Capital greater than Growth Rate
Modigliani and Miller Model	Developed by:	Professor Modigliani and Miller in their article, “Dividend Policy, Growth and the Valuation of Shares” - It is also known as “IRRELEVANCE OF DIVIDEND” theory
	Focus on	- Investors are indifferent to dividends and capital gains. - Dividends have no effect on the wealth of shareholders. - The value of the firm is determined by the earning power of firm's assets or its investment policy. - The manner in which earnings are divided into

		dividends and retained earnings do not affect this value.
	Basics of theory	➤ Under a perfect market situation, ➤ The dividend policy of a firm is irrelevant as it does not affect the value of the firm. ➤ They argue that the value of the firm depends on firm earnings which results from its investment policy. ➤ Thus when investment decision of the firm is given, dividend decision is of no significance.
	Assumptions	➤ Existence of perfect market with rational investors, ➤ No floatation cost on issue of shares, ➤ No taxes, ➤ Investment policy of firm not subject to change, ➤ Perfect certainty by every investors as to future investments and profits of the firm
Marginal analysis and residuary theory		➤ Every firm has some optimum debt ratio, ➤ New financing is done partly by equity and partly by debt which is a cheaper source of funds as compared to equity. ➤ Debt and equity forms the capital and gives the average cost of capital as long as firm finances at the optimum point using an optimum amount of equity and providing that it uses only internal earning as equity. ➤ Its marginal cost of capital (MCC) is equal to the average cost of capital ➤ If the firm turns up for more common stock than the retained earnings, ➤ It will be from outside and expensive. At the point where new stock must be sold the cost of equity and consequently the MCC rises.

LESSON-10

DERIVATIVES AND COMMODITY EXCHANGES – AN OVERVIEW

Q-Derivatives and commodity contract.

CONCEPT OF DERIVATIVES			
Meaning:	• A financial instrument, which derives its value from underlying assets. • The Main aim is to hedge and reduce risks. • A derivative by itself does not constitute ownership; instead it is promise to convey ownership. • Trading of derivatives is governed by the regulatory framework under the SC(R)A.		
	<table> <tr> <td>Underlying assets:</td><td> • Financial assets such as shares and securities • Other assets such as commodities. • E.g., commodities, Forex, bonds, stock indices </td></tr> </table>	Underlying assets:	• Financial assets such as shares and securities • Other assets such as commodities. • E.g., commodities, Forex, bonds, stock indices
Underlying assets:	• Financial assets such as shares and securities • Other assets such as commodities. • E.g., commodities, Forex, bonds, stock indices		
Exchange Traded Derivatives	➤ Derivatives products when traded on an exchange (stock exchange or commodity exchange) are referred to as Exchange Traded Derivatives.		
Examples of Derivatives	➤ Future ➤ Options ➤ Swaps ➤ Swaption ➤ Interest Rate Derivatives ➤ Credit derivatives etc.		
Securities Contracts (Regulation) Act, 1956 (SC(R) A) defines	1. A security derived from a debt instrument, share, loan whether secured or unsecured, risk instrument or contract for differences or any other form of security; 2. A contract which derives its value from the prices, or index of prices, of underlying securities.		
Characteristics of derivatives	1. High liquidity and lowest possible transaction costs. 2. Closely matched with specific portfolio requirements. 3. The margin requirements are relatively low, 4. low level of credit-risk 5. Close relationship between their values and the values of underlying assets. 6. The change in values of underlying assets will have effect on values of derivatives based on them.		

Q-PARTICIPANTS IN THE DERIVATIVES MARKET	
Hedgers	➤ Use futures or options markets to reduce or eliminate the risk associated with price of an asset.
Speculators	➤ Use 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	➤ To take advantage of a discrepancy between prices in two different markets.

Q- TYPES OF DERIVATIVES		
Types	▪ Equity Derivative ▪ Commodity Derivative ▪ Forex or financial Derivative ▪ Interest Rate Derivative ▪ Credit Derivative	
Equity Derivatives	➤ Index futures ➤ Stock Future ➤ Index option ➤ Stock Option	
	Index Futures:	▪ It is a future contract with the index as the under lying asset. ▪ There is no underlying security or stock, which is to be believed to fulfill the obligations as index futures are cash settled. ▪ They can be used for hedging against an existing equity position, or speculating on future movements of the index.
	Stock Future:	▪ A stock future contract is a standardized contract to buy or sell a specific stock at a future date at an agreed price. ▪ The contract derives its value from the underlying stock.
	Index option:	▪ This an option contract where the option holder has the call or put option on the index.
	Stock option:	▪ Stock option is an option contract where the option holder has the right, but not the obligation, to buy or sell the particular stock on or before a specified date at a stated price.
Forex derivatives	▪ Currency futures ▪ Currency forwards ▪ Currency swaps ▪ Currency Options	
Interest Rate Derivatives	• <u>Interest Rate Swap:</u> ➤ It is an agreement between two parties where one stream of future interest payments is exchanged for another based on	

	a specified principal amount. ➤ It is a cash-settled OTC derivative. The most popular interest rate swaps are fixed-for-floating swaps under which cash flows of a fixed rate loan are exchanged for those of a floating rate loan. • <u>Interest rate cap/floor:</u> ➤ An interest rate cap is a derivative in which the buyer receives payments at the end of each period in which the interest rate exceeds the agreed strike price and an interest rate floor is a derivative in which the buyer of the floor receives money if on the maturity of any of the floor lets, the reference rate fixed is below the agreed strike price of the floor. • <u>Interest Rate Swaption:</u> ➤ It is an option to enter an interest rate swap. ➤ In exchange for an option premium, the buyer gains the right but not the obligation to enter into a specified swap agreement with the issuer on a specified future date. • <u>Payer Swaption:</u> ➤ A swap option giving the holder the right to pay a fixed rate and receive a floating rate in an interest rate swap. • <u>Receiver Swaption:</u> ➤ It gives the right but not the obligation to enter into an Interest rate future. It is a financial derivative with an interest-bearing instrument as the underlying asset. For example, Treasury- bill futures, Eurodollar futures etc.
Credit Derivatives	<u>(1) Credit Default Swaps (CDS):</u> • It is a bilateral contract on one or more reference assets in which the protection buyer pays fees through the life of the contract in return for a contingent payment by the protection seller following a credit event. • The amount to be paid by the seller in case of a credit event would be the difference between his original value of the asset and the amount recovered from it. <u>(2) Total Return Swaps (TRS):</u> • It is financial contract which transfers both the credit risk and market risk of an underlying asset. • In a TRS, the total return obtained from one asset is passed on the protection seller, in return for a fixed pre-determined amount paid periodically. • The total returns out of the asset are reflected by the actual cash flows and the actual appreciation/ depreciation in its price over time.

	<u>(3) Credit Link Notes (CLN):</u> • A securitized form of credit derivatives. • The protection buyer issues notes or bonds which implicitly carries a credit derivative. • The buyer of the CLN sells protection and pre-funds the protection sold by way of subscribing to the CLN. • If there is a credit event payment due from the protection seller, the amounts due on the notes/bonds on account of credit events will be appropriated against the same and the balance will be paid to the CLN holder.
Financial derivatives	▪ Options ▪ Forward Contracts ▪ Futures ▪ Stripped Mortgage Backed Securities ➤ Also called SMBS, these instruments represent interest in a pool of mortgages, called —Trenches, the cash flow of which has been separated into interest and principal components. ▪ Interest only securities ➤ Called IOs, receive the interest portion of the mortgage payment and generally increase in value as interest rates rise and decrease in value as interest rates fall. ▪ Principal only “securities” ➤ Called POs, receive the principal portion of the mortgage payment and respond inversely to interest rate movement. ➤ As interest rates go up the value of the PO would tend to fall, as the PO becomes less attractive compared with other investment opportunities in the market place. ▪ Structured Notes ➤ These are debt instruments where the principal and/or the interest rate is indexed to an unrelated indicator. An example would be a bond whose interest rate is decided by the prevailing bank rate. ▪ Swaps ➤ A swap is a simultaneous buying and selling of the same security or obligation. ➤ Interest rate swaps are fairly common in which two parties exchange identical securities having different interest rate structures. ➤ The swap market has grown dramatically. Today Swaps involve exchange of other than interest rates, such as mortgages and currencies. Swaps may also include —Cap and —Floor or Caps and Floors combined —Collars. A

	derivative consisting of an option to enter into an interest rate swap, or to cancel an existing swap in the future is called a —Swaption ll. ▪ Warrants ➤ All options having maturity above one year are called warrants. These are generally traded over-the-counter. ▪ Leap ➤ Leap the acronym for Long-term Equity Anticipation Securities are options having a maturity of up to three years. ▪ Swaption ➤ Swaption are options to buy/sell a swap that will become operative at the expiry of the option. ➤ Thus a Swaption is an option on a forward swap. Rather than having calls and puts, the Swaption market has receiver Swaption and payer Swaption. A receiver Swaption is an option to receive fixed and pay floating, whereas a payer Swaption is an option to pay fixed and receive floating.
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Q: Forward contract vs Future contract		
Basis of Point	Forward Contract	Future Contract
Meaning	Private bilateral Contract. A tailor made contract	Standardized treadle contracts
Price	not publicly disclosed	Transparent
Liquidity	It is exposed to the problem of liquidity	No liquidity problem in case of future contract due to day to day settlement
Trading	Personal basis, telephone	competitive arena
Contract size	No standard size	Have a specified size and value
Exchanges	OTC market	Traded on organized exchanges with designated physical location
settlement	At the end of contract	on delivery basis
Margin	Not required	Margin required as decided by Exchange Authorities
Credit Risk	Borne by Each party and hence every party has to recognize the effect of creditworthiness of counter party.	Transaction is a two way and hence the parties need not bother about creditworthiness of each party.

Q: Discuss the advantages and limitations of forward contract.

Advantages of forward markets

- (a) A useful hedging tools
- (b) helps in price discovery

Limitations of forward contract

- (a) The problem of liquidity
- (b) Inadequate knowledge
- (c) Problem of Counter Party Risk

Q: Valuation of future: “Going long or short in future”

Actual Future Price < Fair Future Price	Future underpriced	Go long
Actual Future Price > Fair Future Price	Future overpriced	Go Short
Actual Future Price = Fair Future Price	Correctly priced	Hold

Q: Valuation model – future “cost of carry model”

[a] Simple rate of interest:

FFP = Spot Price + Carrying cost – Return (e.g. Dividend)

[b] Continuous Compounding Rate of interest:

☛ **No dividend Paid:**

$F = Se^{rt}$ where, F =Future price, S =Spot price, r =Rate t =time

☛ **Dividend Paid:**

$F = (S - I)e^{rt}$ where, $I = D \times e^{-rt}$ I = Present value Dividend

☛ **Dividend Yield is given:**

$F = Se^{(r-y)t}$ where, y = Dividend yield

Note: e = exponential constant = 2.7183 $\log e = 0.4343$

Q: Value of hedge transaction

No of sh

Value of hedge transaction = purchase/sell × MPS × Beta × % of hedge require

No of index future contract to be purchased or sold = $\frac{\text{value of hedge transaction}}{\text{Spot index value} \times \text{Lot size}}$

Q: In the Money (ITM), Out of the Money (OTM) and At the Money (ATM)		
Particulars	Call option	Put option
Spot price > Strike price	ITM	OTM
Spot price < Strike price	OTM	ITM
Spot price = Strike price	ATM	ATM
Note: Only ITM options are exercised.		

Q: OPTIONS CONTRACT		
Meaning:	Option Contract gives its holder the right, but not the obligation, to take or make delivery on or before a specified date at a stated price.	
Option holder/Buyer	The person who acquires the right.	
Option Writer/Seller	The person who grants the right.	
Types of Contract	Call Option	With the buyer and gives the holder a right to take delivery.
	Put Option	The put is with the seller and the option gives the right to make deliver
	European Option:	European Style options are those contracts where the option can be exercised only on the expiration date.
	American Option:	American style option is those contracts where the option can be exercised on or before the expiration date.
	Covered Option	A call option is called covered if it is covered/written against assets owned by option writer.
	Naked Option	If the option is not covered by physical asset is known as Naked Option.

Q: Discuss gains and losses in options and futures						
Price Details	Position of party					
	Call Holder	Call Writer	Put Holder	Put Writer	Future Buyer	Future Seller
Price Increases	Unlimited Gain	Unlimited Loss	Unlimited Loss	Limited Gain	Unlimited Gain	Unlimited Loss
Price Falls	Limited Loss	Limited Gain	Large Gain	Large Loss	Large Loss	Large Gain
No change	Limited Loss	Limited Gain	Limited Loss	Limited Gain	NIL	NIL

Q: Discuss various option strategies		
Option strategies can be adopted for	• Speculations • Hedging • Spreading • Combination of call and put options.	
Option strategies for Speculations	Expectation of Market Price	Option Strategy
	Sharp increase in Price	Buy Call option
	Sharp Decrease in price	Buy Put option
	Moderate Increase in price	Sell put option
	Moderate decrease in price	Sell call option
Option strategies for Hedging (All for Same K and same expiry)	• Covered call (+S,-C) • Reverse of Covered call (-s,+c) • Protective Put (+s,+p) • Reverse of Protective Put (-s,+p) • Collar (+s,+p,-c) Note: ➤ +s means buying shares ➤ -c means selling call options. ➤ +p means buying put options. ➤ K means strike price	
Combination of options (Call + Put) (All for Same K and same expiry)	• Long Straddle (+c,+p) • Short Straddle (-c,-p) • Strip (+c,+2p) • Strap (+2c,+p) • Long Strangle (+P,+c) for same expiry but higher K for call. • Short Strangle (-p,-c) for same expiry but higher K for call	
Spreading	• Bull spread (Same Expiry) ➤ Calls (+c,-c) latter at higher K ➤ Puts (+p,-p) latter at higher K • Bear Spread (Same Expiry) ➤ Calls (+c,-c) latter at lower K ➤ Puts (+p,-p) latter at lower K • Butterfly Spread (Same Expiry) ➤ Calls (+c,+c,-2c) short calls at medium K ➤ Puts (+p,+p,-2p) short puts at medium K • Calendar spread (Same K) ➤ Calls (+c,-c) latter for shorter expiry ➤ Puts (+p,-p) latter for shorter expiry.	

Q: Factors Affecting valuation of options	
Six Factors	1. Current value of underlying assets 2. Expected volatility in value of underlying assets 3. Strike price of options. 4. Expiration time of options 5. Rate of interest 6. Income from underlying assets.
Option Premium	= Intrinsic value + Time value
Note:	Call Intrinsic value = Mkt Price – Strike Price Put Intrinsic value = Strike price – Market Price

Q: Valuation of option		
Actual Premium < Fair Premium	Option underpriced	Buy option
Actual Premium > Fair Premium	Option overpriced	Sell option
Actual Premium = Fair Premium	Option efficiently priced	Hold Option

Valuation of option models:		
1. Present value model 2. Binomial model 3. Risk neutrality approach 4. Black and Scholes models(BSM)		
Present value model		
Type of option	Simple Rate of Interest	Continuous compounded
Call option	$Co = S - E / 1 + rt$	$Co = S - E e^{-rt}$
Put option	$Po = E / 1 + rt - S$	$Po = E e^{-rt} - S$
<i>Note: if value of option is negative then assume it is to be zero.</i>		

Hedge Ratio (option delta) = $\frac{\text{Spread of expected option price}}{\text{Spread of expected spot price}}$

Black and Scholes models(BSM) - only for call option	
Introduction: ➤ In 1973, Black and Scholes presented model as basic option valuation model. ➤ It presents combination of shares and borrowing can indeed duplicate call option over infinite time horizon. Variables of BSM: ➤ Current value of shares ➤ Time to expiry ➤ Strike price ➤ Interest Rate ➤ Volatility of price Assumptions: ➤ Call option is European option. ➤ No taxes & Transaction costs. ➤ Price moves randomly. ➤ Risk free rate is known.	$C_0 = [S \times N(d_1)] - [E e^{-r \times t} \times N(d_2)]$ $d_1 = \frac{\ln(S/E) + (r + 0.5 s.d^2) \times t}{s.d \sqrt{t}}$ $d_2 = d_1 - (s.d \times \sqrt{t})$ where, S = Spot price as on today t = duration of option in year s.d = standard deviation ln = natural log $\ln_x = \log x / \log e$

Put-call Parity relationship (Put-option)
• Interest Rate is continuous: $P_0 = C_0 + E e^{-r \times t} - S$ • Simple Rate is given: $P_0 = C_0 + E/1 + r t - S$

Q: Binomial model for option valuation	
Introduction	➤ It uses a 'discrete time' framework for valuation of options. ➤ It is based on simple formulation for asset price process in which assets in any time period can move to one of two possible prices.
Assumptions	➤ No transaction cost, no taxes and no margin. ➤ Market is competitive. ➤ The current Price S and it can take two possible values after 1 year. $S_1 > S > S_2$ ➤ Strike price K is given. ➤ Investor can borrow or lend amount B at rate of interest y.
Replicating portfolio	➤ BM is based on concept of "Replicating Portfolio"
Formula	$B = (C_1 / (1+r)) - (\Delta S_2 - C_2)$ Where, ➤ B = Total Amount of borrowings. ➤ Δ = Hedge ratio ➤ S_2 = Lower Share price ➤ C_2 = Lower call price ➤ Calls = No of calls to be sold/Purchased $\text{Value of call} = [C_1 - \Delta S_1] - B$

Q: Tools of Options Derivatives/Option premium sensitivities/Greek Parameters

1. Delta:

- It refers to sensitivity to change in price of underlying assets)
- $\Delta = (\text{change in option premium} / \text{changes in price})$
- Delta is slope of curve that relates option price of underlying asset.

2. Gamma

- It refers to sensitivity to change in delta.
- $\text{Gamma} = (\text{changes in delta} / \text{changes in prices})$

Gamma	Delta
Small	Changes slowly
Large	Highly sensitive

3. Vega

- It refers to sensitivity to change in volatility of asset price.
- $\text{Vega} = (\text{changes in option premium} / \text{changes in volatility price})$
- Value of Vega lies between 0 and infinity.

4. Theta

- It refers to sensitivity to change in time to expiry.
- $\text{Theta} = (\text{Changes in option premium} / \text{Changes in time to expiry})$
- Theta value is generally negative because as time to maturity approaches, the option tends to become valueless.

5. Rho

- It refers to sensitivity to change in interest rate.
- $\text{Rho} = (\text{changes in option premium} / \text{Changes in Rate of interest})$

Particulars	Delta	Gamma	Vega	Theta
Long call	+	+	+	-
Short call	-	-	-	+
Long Put	-	+	+	-
Short Put	+	-	-	+

- + means option position will give profit if increase in relevant variable & bring loss if decrease in relevant variable.
- - means option position will bring loss if increase in relevant variable & will bring profit if decrease in relevant variable.

LESSON 11

TREASURY MANAGEMENT

Q: What do you understand by treasury management? What are its main objectives?	
Treasury management – A science	• Treasury management is the science of managing treasury operations of a firm. • Treasury in its literal sense refers to treasure or valuables of the Government.
Reserve Bank of India manages the macro treasury management of the country.	This is done through • Issue of Currency notes • Distribution of small coins, one, two and five rupee coins and • Rupee notes on behalf of the government • Maintenance of currency chests.
objective of keeping the currency chests	The basic objective of keeping the currency chests at various places in India is • To facilitate quick disbursement of currency and coins to far flung places and also • To facilitate remittance to banks. ➤ This way, the banks can remit surplus cash to the currency chests located in their region and avoid transportation of cash over long distances. ➤ Also, the banks can draw from the currency chests during time of need. ➤ Currency chests are the agents of the Reserve Bank of India for keeping custody of currency and coins ➤ Any deposit of currency and coins into these chests implies that the money circulation has been curtailed to that extent. ➤ Similarly, any disbursal from these chests would expand their supply. Thus expansion and contraction of currency takes place on continual basis due to operation of the currency chest.
A part of the total managerial functions	➤ Treasury function is a part of the total managerial functions. ➤ Managerial function set-up can be classified into three broad units, viz. 1. Production function, 2. Marketing function and 3. Finance function.
Treasury management - Macro and Micro aspects	➤ Treasury management has both macro and micro aspects. ➤ At the macro level: • The inflows and outflows of cash, credit and other financial instruments are the functions of the government and the business sectors.

	• These inflows are arranged by them as borrowing from the public. • In these sectors, the ratio of savings to investments is less than one, i.e. the savings are inadequate to fund the investments. • Hence the need for borrowing. They accordingly issue securities or promissory notes which are part of the financial system		
	➤ The micro units • Utilize these inflows and build up their capacities for production of output. • This leads to establishment of a production system which logically leads us to the natural consequence, i.e. the establishment of distribution and consumption systems.		
Objectives of treasury management	1. Availability in right quantity 2. Availability in right time 3. Deployment in right quantity 4. Deployment in right time 5. Profiting from availability and deployment.		
	<table><tr><td>Availability in right quantity</td><td> • Cash management • Liquidity management • Receivable management • Inventory management </td></tr></table>	Availability in right quantity	• Cash management • Liquidity management • Receivable management • Inventory management
	Availability in right quantity	• Cash management • Liquidity management • Receivable management • Inventory management	
	<table><tr><td>Availability in right time</td><td> • Just in Time • Operating cycle • TQM and TQC </td></tr></table>	Availability in right time	• Just in Time • Operating cycle • TQM and TQC
Availability in right time	• Just in Time • Operating cycle • TQM and TQC		
<table><tr><td>Deployment in right quantity</td><td> ➤ Earmarking of funds ➤ Parking of short term funds. </td></tr></table>	Deployment in right quantity	➤ Earmarking of funds ➤ Parking of short term funds.	
Deployment in right quantity	➤ Earmarking of funds ➤ Parking of short term funds.		

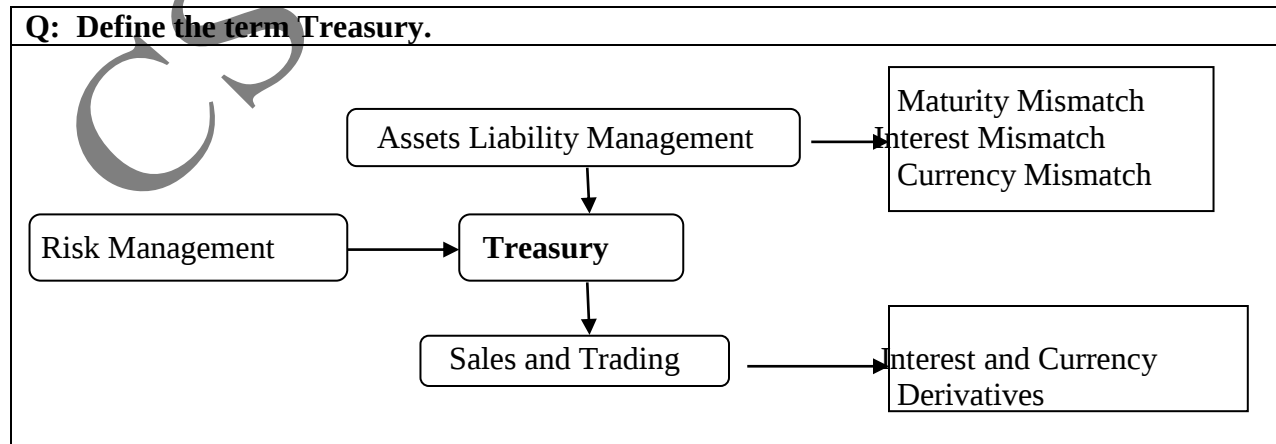
Q: Discuss the functions of treasury manager	
Functions:	➤ Requirement of cash, currency and credit ➤ <u>At Macro level:</u> • Pumping in and out of cash, credit and currency functions of Govt. and business sector. ➤ <u>At Micro level:</u> • Financial sector
Scope:	1. Unit level 2. Domestic level 3. International level
Unit level	★ Cash management ★ Working capital management of managerial functions ★ Receivable management ★ Timely informed to management

	★ Liaisoning ★ Solvency positions.
Domestic level	★ Profitable investment avenues ★ Compliance of Capital Adequacy norms(Tier I and II capital requirement of Banking Regulations & BASEL norms) ★ Open market operations ★ SLR and CRR requirement compliance ★ Earning Yield (Return on Investment) 1. Nominal 2. Real with Purchasing Power 3. Net with TDS 4. Current Yield 5. Yield to Maturity
International level	➤ Mainly dealing with Forex Management.(Buy/Sale) ➤ TT: (Telegraphic Transfer)and Mail Transfer ★ Transfer of money by telegraph/Cable/Fax. ★ No interest risk ➤ Managing Forex Risk. ★ Credit risk ★ Currency Risk ★ Country risk ★ Solvency Risk

Q:Difference between Financial Management and Treasury Management

Point	F.M	T.M
Objective	To establish and to coordinate finance functions.	To execute plan of Finance function
Reports	Preparation of overall finance report	To monitor income and exp budget
Strategic Aspect	Long term	Short Term
Nature of assets	Creation of Fixed assets	Creation and managing Current Assets.

Q: Define the term Treasury.



Q:Discuss the role of Treasury Manager	
Originating Role:	★ Accounting for firms, guideline for users
Supportive Role:	★ Co-ordination, Budgeting and Legal Documentation
Leadership Role:	★ Ready with Master Plan in case of liquidity crunch
Watchdog Role:	★ Monitor on suspected bundling and fraud
Learning Role:	★ Keep on learning new aspects like, IFRS, and try to educate other departments.
Informative Role:	★ Keep top management informed timely.
Compliance Role:	★ Comply with statutory Guidelines
Professional Role:	★ Professionalism (Think Straight)
Honest and Straight Dealings.	

Q:Tools and Environment of Treasury Management	
Tools	★ Analytical and Planning tools ★ Performance Budgeting ★ Zero Based Budgeting ★ Financial Statement Analysis.
Environment	★ Legal ★ Financial and Regulatory
3 “M” of Financial Risk	➤ Manage ➤ Mitigate ➤ Monitor

Q: Role of MIS with reference to Treasury Management
★ Automatic repetitive Task ★ Implementation of Internal Control (Audit) ★ Time saver ★ Fraud and Error Detection Methodology ★ Forecasting cash flow ★ Variance analysis ★ Web based treasury Management(with authentication and encryption) ★ Transparency ★ Pay for performance.

Q: Role Of Treasury Management	
➤ Planning and Operations	➤ Cash flow forecasting ➤ Risk forecasting ➤ Investment appraisal ➤ Tax planning ➤ Pensions planning ➤ Co-operate with Board on strategic development ➤ Choose and operate Treasury systems ➤ Negotiate, analyze and manage the fee's and margins of service providers ➤ Ensure quality standards of service providers.
➤ Cash and Liquidity Management	➤ Manage internal capital market by investing and lending to subsidiaries ➤ Work with the business to optimize commercial cash flows ➤ Work with the business to optimize working capital ➤ Minimize idle cash through netting and cash concentration ➤ Confirmation and reconciliation of receipts ➤ Timely disbursement of payments
➤ Funding and Capital Markets	➤ Optimization of capital structure ➤ Manage short, medium and long-term investments Maximize yield on assets ➤ Ensure adequate liquidity to support the business ➤ Ensure adequate liquidity to meet obligations as ➤ Access to capital at the right time, price and conditions they fall due ➤ M&A, Divestiture and JV's ➤ Diversify capital sources, partners and maturities ➤ Ensure good credit ratings ➤ Portfolio management of debt, derivatives and investments
➤ Financial Risk Management	➤ Interest Rate risk management ➤ Commodity risk management ➤ Credit risk management ➤ Liquidity risk management
➤ Corporate Governance	➤ Ensure accurate valuation of financial instruments ➤ Ensure accurate accounting of Treasury
➤ Stakeholder Relations	➤ Provide performance and risk analytics to Board ➤ Manage relationship with banks and other investors ➤ Manage relationship with credit rating agencies

Q:Tools and Environment of Treasury Management	
Tools	★ Analytical and Planning tools ★ Performance Budgeting ★ Zero Based Budgeting ★ Financial Statement Analysis.
Environment	★ Legal ★ Financial and Regulatory
3 “M” of Financial Risk	➤ Manage ➤ Mitigate ➤ Monitor
Legal environment	➤ By legal environment we refer to the legislations which govern corporate functioning. These legislations are the one pertaining to company law, taxation, industrial regulation etc.
Regulatory environment	➤ The regulatory environment encompasses regulations regarding employment, wages, land laws, promotion of units and closure of units etc.
Financial environment	➤ Financial environment pertains to policies regarding monetary and fiscal control, financial supervision, exchange control etc.

LESSON-12

FOREX

MANAGEMENT

Q: What is Foreign Exchange Market?	
Meaning:	- It may be defined as science of management of ➤ Generation ➤ Use ➤ Storage of foreign currencies in the process of one currency into other currency.
Includes:	Foreign currencies, Drafts, Bills, letter of credits, travelers cheque provided that are denominated and payable in foreign currency.
Major sectors of Forex	- Spot market - Forward and future market - Currency options market.
Participants	★ Importers and exporters ★ Portfolio managers ★ Forex brokers ★ Traders ★ Exchange dealers ★ Speculators ★ Money changers
Functions of Forex Market	➤ Minimize or hedge exchange risk due to fluctuations in exchange rate ➤ Provides arbitrage opportunities to traders ➤ Channelization of investment ➤ 24*7 market ➤ Bias opinion does not affect currency ➤ No restriction on account balance.
Significance	- WTO integration - LPG - Increase standard of living - Global financial market.
Main focus of Forex management	▪ A part of management science ▪ Generation of Forex ▪ Use of Forex ▪ Storage of Forex

Q: What are the determinants of Forex rates?	
Or Factors affecting Forex rates:	
Fundamental factors	➤ Economic factors ➤ Inflation rate ➤ Tax policy ➤ Balance of payment

	➤ Unemployment ➤ fiscal policy ➤ Devaluation
Political and psychological factors	➤ Legal rules and regulation of Government ➤ Political stability ➤ Growth of country
Technical factors	➤ Capital movements ➤ Inflation rate and Interest rate ➤ Exchange rate policy and intervention of Government.
Speculation	• Speculators and treasury managers influence movement in exchange rates by buying and selling foreign currencies with expectations of gain by exploiting market inefficiencies.
Others:	• Attitude of investors • Investment opportunities • Market expectations • Demand and supply • Purchasing Power • Relative income level

Q: Discuss skills requires for Forex managers.

- Awareness of historical development of world trade
- Ability to forecast Forex trend and budget
- Comparative analytical skill
- In-depth knowledge
- Ability to analyze internal and external environmental scanning (SWOT).
- He must have regularly updated knowledge of government policies and provisions, rules and regulations of act.
- He must be with well equipped hedging strategies.
- Willing to undertake risk

Q: Briefly list out the different ways for managing Forex rate risk.

Methods for managing risks	▪ Exposure netting ▪ Forward exchange contracts ▪ Currency futures and options ▪ Diversified production, marketing and finance ▪ Currency swap arrangement
Forex hedging tools	1. Forward contract and future contract 2. Currency options 3. Money market operations 4. Leading and lagging 5. Currency swaps

Q: Explain the following terms with reference to Forex market.	
Exchange rate	- It's a rate of conversion of one currency into another - It also refers number of units of one currency expressed in terms of units of another currency.
Spot Rate	- It is the price at which currencies can be bought and sold in spot exchange market for immediate delivery usually within two working days. - It refers exchange rate prevailing now.
Direct quote(DQ)	- No of units of home currencies to deal in one unit of foreign currencies. $DQ = 1/IDQ$ - e.g. \$1= Rs.45.24
Indirect quote(IDQ)	- No of units of foreign currencies to deal in one unit of home currencies. $IDQ = 1/DQ$ - e.g. Re.1= \$0.0221
Bid Price	- Price at which exchange dealer will buy another currency. - Price at which customer can sell foreign currency
Offer Price or Ask Price	- Price at which exchange dealer will sell currency - Price at which customer can buy foreign currency.
Spread	- Difference between Ask price and Bid price - It is also known as dealer's margin. $Spread = Ask Price - Bid Price$
Forward rate	It's a exchange rate contracted today for exchange of currency at future date.
Cross rate	- An exchange rate that does not involve home currency. - It's an exchange rate between currencies of two countries that are not quoted against each other but quoted against one common currency.
Arbitrage	- Activity of making risk less profit - It involves buying and selling of the same commodity in different markets. E.g spot and forward market

Q: Discuss Interest Rate Parity Theory (IRPT) and its implications.	
Meaning	- It defines relationship between - Interest rates and - Exchange rates } of two countries
Basis of (IRPT)	Forward premium or discount on currency should be equal to the interest rate differential between two countries. - High interest rate on currency is offset by forward discount and - Low interest rate is offset by forward premium.
Explanation	Exchange Rate of Differentials (forward and spot rate) will be equal to interest rate differential between countries concerned.
Formula Presentation	$\frac{\text{Forward Rate}}{\text{Spot Rate}} = \frac{(1 + \text{Interest Rate in Home country})}{(1 + \text{Interest Rate in Foreign Country})}$

Conclusion:	➤ Home Currency Interest Rate > Foreign Currency Interest Rate = “Foreign currency traded at Premium” ➤ Home Currency Interest Rate < Foreign Currency Interest Rate = “Foreign currency traded at Discount”
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Q: Discuss Purchasing Power Parity Theory and explain the relationship between exchange Rate and law of one price.	
Meaning	➤ Exchange rate between currencies of two countries should be equal to the ratio between the prices of goods in these two countries. ➤ Exchange Rate must change to adjust to the change in prices of goods.
Significance	▪ It defines the relationship between the inflation rates and the exchange rates of two countries. ▪ Under PPPT, the forward premium or discount on currency should be equal to the difference in inflation rate between the countries concerned.
Explanation	➤ Exchange rate differential (forward rate and spot rate) will be equivalent to the inflation rate differential between the two countries
Formula presentation	$\frac{\text{Forward Rate}}{\text{Spot Rate}} = \frac{(1 + \text{Inflation Rate in Home country})}{(1 + \text{Inflation Rate in Foreign Country})}$
Conclusion:	➤ Home Currency Inflation Rate > Foreign Currency Inflation Rate = “Foreign currency traded at Premium” ➤ Home Currency Inflation Rate < Foreign Currency Inflation Rate = “Foreign currency traded at Discount”

Q: Explain Fisher Effect and also discuss International Fisher Effect.		
Fisher Effect	Basis:	➤ Nominal Interest Rate comprises of Real Interest Rate <u>And</u> Expected Rate of Inflation.
	Theory	➤ Nominal Interest Rate will adjust to reflect to changes in Inflation Rates. ➤ I.e. if Inflation rate is high, the nominal Interest Rate will be high and vice versa.
	Formula	$1 + \text{NIR} = (1 + \text{RIR}) \times (1 + \text{IR})$ Note: ➤ NIR - Nominal Interest Rate ➤ RIR - Real Interest Rate ➤ IR- Inflation Rate.
International Fisher effect	Theory	▪ Nominal Interest Rate differential must be equivalent to the expected inflation rate differential between two countries.

FINANCIAL TREASURY AND FOREX MANAGEMENT/DEC 2016

	Formula	$\frac{1 + \text{NIR of H.C}}{1 + \text{NIR of F.C}} = \frac{1 + \text{Infl'n Rate Home country}}{1 + \text{Infl'n Rate of Fore. Country}}$
Note: <i>International fisher effect = Interest Rate Parity = Purchasing Power Parity</i>		

Q: Write Short Note on: Forex Exposure.

Components of Forex Risk		➤ Transaction exposure or Risk ➤ Translation exposure or Risk ➤ Economic Exposure or Risk	
	Transaction Exposure	▪ In the books of accounts, foreign currency amount is expressed in reporting currency by applying exchange rate prevailing on transaction date. ▪ Possibility of exchange loss or gain on existing foreign currency denominated transactions. ▪ It covers Rate Risk, credit Risk and Liquidity Risk. ▪ E.g cross border trade, local purchase and sales.	
	Economic exposure / Operating exposure	▪ Change in value of firm caused b unexpected changes in exchange rate. ▪ Exchange rates changed significantly after cost of firms input and prices of output and thereby influence its competitive position substantially.	
	Translation exposure /Accounting exposure	▪ There is a need to convert financial statements of foreign operation from foreign currencies to domestic currency for reporting and consolidation purpose.	
Overall difference			
Points	Economic exposure	Transaction exposure	Translation exposure
Duration	Life of project	Duration of contract	At a point of time(conversion)
Nature of Contract	General	Specific	Specific
Measurement	Value depends upon variation in actual spot rates	Value depends on changes in actual spot rates	Value depends on accounting guidelines
Hedging	Difficult to predict	Relatively easy	Easy
Extent of exposure	Guided by product and factor markets	Decided by nature	Based on accounting rules
Management of exposure	All departments	Treasury department	Treasury department

Q: Discuss briefly various Forex Risk hedging tools.	
Forward contract	➤ Contracts to buy or sell forex in future at specified price. ➤ It is not standardize contract. ➤ It carries little transaction cost and default risk.
Future contract	➤ Future contracts are standardize forward contract. ➤ It is standard with reference to period of expiry, no. of units traded etc.
Currency options	➤ This gives right to holder to buy or to sell a currency at an agreed future date. ➤ The holder of currency options has a right not an obligation to perform. ➤ But the transaction costs are very high.
Money Market Operations	➤ It refers to creating equivalent asset or liability against a foreign currency liability or receivable. ➤ It involves a series of transactions for taking opposite position.
Leading and Lagging	➤ Leading is accelerating the payment time. ➤ Lagging is delaying the time payment. ➤ Company which has surplus cash can lead or lag payment based on movement in forex rates. ➤ Leading the payment would mean non availability of funds for any exigencies during the period till due date.
Currency swap	➤ It involves an exchange of cash payments in once currency for cash payments in another currency. ➤ Its an agreement to exchange principal and interest rate obligations in different currencies at an agreed rate.
Exposure netting	➤ It an act of offsetting exposures in one currency with exposures in same or another currency. ➤ The objective of netting is to offset likely loss in one exposure with likely gain in another. ➤ When a firm opts for exposure netting, it hedges its risk without taking any forward cover or options cover. ➤ Generally, banking transactions are based on principles of netting. A bank generally offsets its position in currency by taking opposite positions in same currency. ➤ It occurs where outstanding positions are netted against one another in the event of counter party default.
Foreign currency Risk Management	➤ LIBOR- London Interbank Offered Rate at which various banks participate in the London Money Market for short term investments. ➤ It is the most active interest Rate market in the world. ➤ It is very right through the day and it is calculated for even short periods. ➤ LIBOR is used in determining the prices of many financial derivatives across the world.

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