CONTENTS

FINANCIAL POLICY & CORPORATE STRATEGY 1Q

Q1. What is the role / (Advanced role) of CFO in various matters including value creation?

A. The role of a CFO has expanded vastly over the years consequent to changes in technology, business, environment and of course the pandemic. In addition to fulfilling traditional role relating to governance, compliances and controls, and business ethics CFOs are also expected to contribute their support in strategic and operational decision making. New areas that the CFOs are now expected to focus on:

a) Oversee the overall framework of Risk Management
b) Establish financial viability of the Supply Chain Management
c) Evaluate Mergers, acquisitions, and Corporate Restructuring decisions that are strategic in nature as any error in them can lead to collapse of the whole business.
d) With the evolution of the concept of ESG, role of a CFA has shifted from traditional financing to sustainability financing.

In today's time CFOs are taking a leadership role in Value Creation for the organisation and that too on sustainable basis for a longer period.

RISK MANAGEMENT NIL Q

No New Questions

ADVANCED CAPITAL BUDGETING DECISIONS 15Q

Q1. What are various factors that affect Capital Budgeting?

A.

Inflation:

Inflation affects revenue and cost projections, altering assumptions of constant prices. Changes in product prices due to inflation can significantly impact projected revenues and costs, ultimately affecting profit margins and cash flows.

Technology:

Key Points on Technological Impact:

- Technology influences revenues (price and volume), suppliers, customers, and costs.
- Inflows and outflows are affected due to technological advancements.
- Technology increases risk and can impact discount rates.
- It can reduce or increase the cost of capital, based on the adaptability to technological changes.
- Technology improvements might reduce support costs but could also make current processes redundant.
- Flexible technological enhancements can affect capital costs positively.
- Companies may face additional Capex to transition to new technology-driven methods or products.
- Product life cycles could shorten, necessitating frequent updates or additional Capex.

Ways in which impact of technology can be incorporated into the Capital Budgeting Process

- Employ scenario analysis and sensitivity analysis to forecast various scenarios, considering volume changes, cost variations, etc.
- Continuous Evaluation: Regularly/ periodically update budgets to track changes in technology and market dynamics. Continuously evaluate project viability and adjust budgets accordingly.
- Adjusting Discount Rates: Modify discount rates based on technological risks; if technology simplifies processes, consider a lower discount rate. Conversely, higher risk from rapidly changing technology could necessitate a higher discount rate.

Government Changes

Government Policy Impact on Capital Budgeting:

Fiscal policies, encompassing tax incentives and disincentives, significantly affect after-tax cash flows for industries. Monetary policies, such as interest rates set by RBI, influence long-term cash flows for investments by impacting borrowing costs. Both fiscal and monetary policies impact domestic and international sectors.

	Domestic Capital Budgeting Decisions	International Capital Budgeting Decisions
Impact of Fiscal Policy	Domestic fiscal policies alter tax rates, promoting or discouraging industries, which directly influences tax rate and thereby after-tax cash flows.	Policy changes concerning taxes affect costs of projects relying on imports. Tax structures and agreements in different countries can have substantial financial implications for investments made outside the home country.
Impact of Monetary Policy	Reduced interest rates encourage borrowing, positively impacting project viability, regardless of the technological stability scenario. These policies significantly affect industry promotions and borrowing practices for substantial investments.	Fluctuations in forex rates can significantly alter project evaluations and input costs.

Q2. How are Risk & Uncertainty considered in decision making / Capital Budgeting process?

A.

Risk plays a crucial role in capital budgeting decisions. It represents the potential variability or uncertainty in the expected returns or cash flows from an investment project. When there's risk involved, decision-makers are aware that the actual returns might deviate from the projected or expected values due to various factors.

	Understanding Certainty, Risk & Uncertainty	Impact on Cash flows & Decision Making
Certainty	At the outset of the capital budgeting process, it is often assumed that cash flows associated with a project are certain and predictable	Decision making is straightforward and involves no complexities when cash flows are certain. There's no need for risk assessment or probability considerations.
Risk	This arises when there is a probability attached to the occurrence of cash flows. It involves assessing the likelihood of different cash flow scenarios	Decision making involves risk assessment, considering the probabilities attached to different cash flow scenarios. It requires evaluating potential outcomes and their likelihood.
Uncertainty	This exists when cash flows cannot be reasonably predicted or when attaching probabilities to cash flows becomes difficult due to the lack of clear patterns or trends.	Decision making becomes more complex when cash flows are entirely uncertain. Probabilities cannot be reasonably assigned, making it challenging to assess potential outcomes.

Q3. What is the need for addressing Risk & Uncertainty in decision making / Capital Budgeting process?

A.

Opportunity Cost: One needs to assess whether the returns from a project are superior to the potential returns from alternative investments. Consider the foregone opportunities in choosing one project over another.

Risk Premium: Projects with higher risk require a higher return to compensate for the additional risk taken. One needs to evaluate whether the potential reward aligns with the level of risk.

Q3. What are various internal and external factors affecting in decision making / Capital Budgeting process?

A. INTERNAL FACTORS AFFECTING CAPITAL BUDGETING:

Project-Specific Risks: Consider risks that are specific to the project, such as environmental factors, natural disasters to the specific location, or others specifically affecting the project.

Company-Specific Risks: Evaluate risks specific to the company, including issues like credit downgrades, management challenges, or unique aspects of the company's capital structure.

EXTERNAL FACTORS AFFECTING CAPITAL BUDGETING:

Industry-Specific Risks: Consider industry-wide risks such as regulatory changes, tax implications, subsidies, or any changes affecting the entire sector.

Market-Specific Risks: Assess risks related to the market, including supply chain disruptions, raw material shortages, or other market-driven challenges.

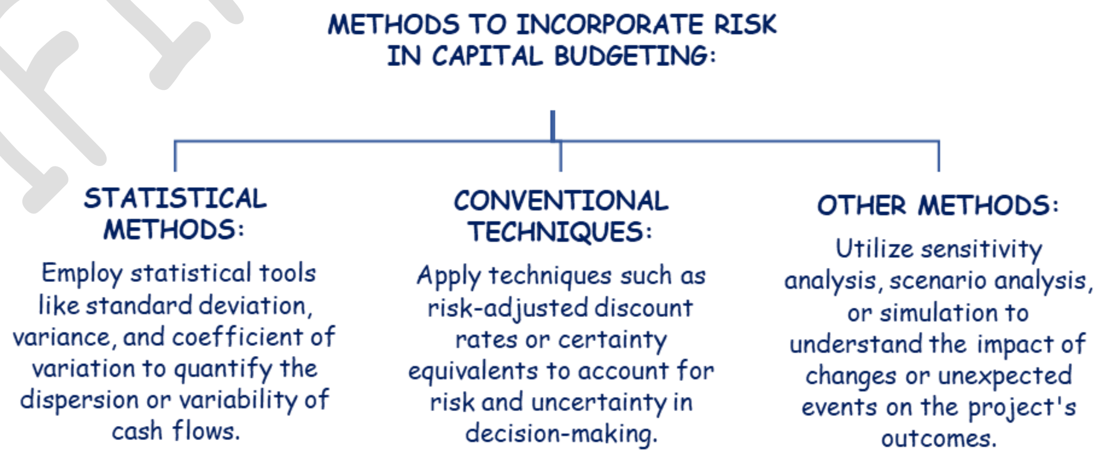
Competition Risks: Evaluate risks arising from competition, such as the entry of new competitors, technological advancements, or changes in market dynamics.

Economic Condition Risks: Consider risks influenced by economic factors like inflation, interest rate fluctuations, or changes in forex rates affecting costs or revenues.

International Risks: Assess risks arising from geopolitical events, international conflicts, trade sanctions, or global economic instability affecting businesses on an international

Q4. What are various methods for addressing Risk & Uncertainty in decision making / Capital Budgeting process?

A.



Q5. Elaborate on various Statistical methods used for Risk Assessment?

A.

1. **Probability-Weighted Cash Flows:**

   Calculate the expected cash flows by multiplying each cash flow by its respective probability and summing them to get the overall expected value.

   Probability-weighted cash flows are used to assess the expected value of cash flows by multiplying each cash flow by its respective probability and summing them up.

   Expected value = $\sum Pi\ NCFi$

   Expected Net Present Value:

   ENPV is the expected value of Net Present Value (NPV) considering different possible outcomes and their probabilities. To calculate ENPV, NPV is computed for each potential scenario, and these NPVs are weighted by their respective probabilities of occurrence.

   For Single Period: ENPV = $\sum_{t=1}^{n} \frac{ENCF}{(1+k)^t}$

   For Multi-Period: ENPV = $\frac{ENCF}{(1+k)^1} + \frac{ENCF}{(1+k)^2} + \cdots \frac{ENCF}{(1+k)^t}$

2. **Variance & Standard Deviation:** These Measure the dispersion or variability of cash flows around the mean to understand the range of potential outcomes and their likelihood. Variance: Variance (σ^2) measures the average squared deviation of individual cash flow values from their mean. Standard deviation (σ) is the square root of variance. It measures the extent of deviation or dispersion of cash flow values from their mean.

   Variance, σ^2 = $\sum_{j=1}^{n}(NCF - ENCF)^2$

   For Multi-Period, σ^2 = $\frac{\sum(x-\bar{x})^2}{n}$

   With Probability, σ^2 = $\sum Pi(x - \bar{x})^2$

   Difference Between Variance and Standard Deviation: Variance portrays the range or spread of cash flow values, emphasizing how far each value deviates from the mean. In contrast, standard deviation quantifies this variability or risk associated with the cash flow values.

   Hiller's Method of Standard Deviation: Hiller suggests that uncertainty or risk associated with a capital expenditure proposal is represented by the standard deviation of expected cash flows. The more certain a project's outcomes are, the lower the deviation of cash flows from the mean. Certainty reduces variability in expected cash flows. Mean of present value of cash flows and standard deviation of such cash flows. the factors considered Formula:

Mean Calculation: $M = \sum_{i=0}^{n}(1+r)^{-1}Mi$

Standard Deviation: $\sigma^2 = \sum_{i=0}^{n}(1+r)^{-2i}\sigma_i^2$

3. **Coefficient of Variation:** It considers the ratio of standard deviation to the mean to compare the risk per unit of return among different projects or investments.
   The coefficient of variation is a metric used to compare the risk of different projects or investments relative to their expected cash flows. It is computed by dividing the standard deviation of cash flows by the expected cash flow value.

   Coefficient of Variation = $\frac{Standard\ Deviation}{Expected\ Cash\ Flow}$

   Interpreting Coefficient of Variation:

   - A project with a lower coefficient of variation is considered less risky per unit of cash flow compared to a project with a higher coefficient of variation.
   - Lower risk per unit of cash flow is preferred when choosing between projects with varying levels of expected cash flows and associated risks.

   Understanding these aspects of risk and employing appropriate strategies to address uncertainties in the capital budgeting process helps in making informed decisions and mitigating potential risks associated with different investment opportunities.

Q6. Elaborate on various conventional Techniques used for Risk Assessment?

A.

Risk-Adjusted Discount Rate (RADR):

- RADR is a method used to adjust the discount rate based on the risk associated with a project.
- The formula involves adding the risk premium to the risk-free rate to determine the discount rate. This rate is then used to discount the project's cash flows.
- RADR is calculated as Risk-Free Rate + Risk Premium. The risk premium varies depending on the project's risk level.
- Under CAPM, $k_e = R_f + \beta(R_m - R_f)$ $RADR, k_c = R_f + Risk\ Premium$

Profitability Index

The profitability index determines the relative attractiveness of an investment project by comparing the present value of future cash flows to the initial investment cost.

Profitability Index = $\frac{PV\ of\ Cash\ Inflows}{Initial\ Investment}$

Certainty Equivalent

Certainty equivalent evaluates the certainty or risk associated with cash flows, assessing the level of certainty compared to uncertain cash flows.

It compares certain cash flows to uncertain or expected cash flows, denoted as alpha (α).

STEPS:

- Risk Substitution: Substitute uncertain cash flows with equivalent certain ones by using CE coefficients (α).

$$\alpha = \frac{\textit{Certain Cash Flow}}{\textit{Expected Cash Flow from Risky Projects}}$$

  It represents the proportion of certain cash flows against uncertain or expected cash flows. If a certain cash flow is 100% secure, the uncertain cash flow is higher than this.

  The certainty equivalent value α is used to adjust uncertain cash flows. Multiplying the certainty equivalent with uncertain cash flows yields the expected cash flow.

- Discounting: Use risk-free rate to discount cash flows after factoring risk through CE coefficients. Avoid using the firm's cost of capital to prevent double-counting risk.
- Capital Budgeting: Utilize traditional methods but adjust IRR comparison with the risk-free rate, and not the firm's required rate.

$$\textbf{NPV} = \sum \frac{\alpha * NCF}{(1+k)^n} - \textit{Initial Investment}$$

Advantages of Certainty Equivalent Approach

- The method is straightforward, making it simple to comprehend and apply in decision-making processes.
- Easily adaptable for varying risk levels associated with different cash flows. Allows adjustments for higher risk in specific years, enabling recalculations of NPV accordingly.

Disadvantages of Certainty Equivalent Approach

- Lacks an objective or mathematical technique for estimating certainty equivalents. Certainty equivalents are subjective and differ based on individual estimations.
- Certainty equivalents are determined by management based on their risk perceptions. Ignores the risk perception of shareholders who finance the project, limiting its use in corporate decision-making.

Q7. What are important points to be kept in mind when employing conventional techniques for Risk Assessment?

A

- Capital budgeting decisions necessitate a crucial understanding: for the same risk, it's impermissible to adjust both cash flows and the discount rate. Only one of these elements (cash flows or discount rate) should be adjusted for a particular risk.
- Choosing between adjusting cash flows or discount rates depends on the nature of uncertainty or risk associated with the project, maintaining consistency to avoid skewed evaluations.
- Understanding these conventional techniques, specifically risk-adjusted discount rates and certainty equivalents, aids in determining project viability by factoring in risk while discounting cash flows, contributing to informed investment decisions in capital budgeting scenarios.

Q8. Elaborate on Sensitivity Analysis

A. Sensitivity analysis assesses the impact of changes in input variables on the final output metrics, such as Net Present Value (NPV) or Internal Rate of Return (IRR), in capital budgeting decisions. It focuses on individual input factors (like sales volume, price per unit, discount rate, etc.) that affect the financial metrics like NPV or IRR.
Usually, it emphasizes negative movements to understand how changes in input variables could potentially decrease NPV, aiding decision-making strategies to mitigate negative outcomes.

Methodology: It involves changing one variable at a time while keeping other variables constant to observe the impact on the final output. For instance, understanding how a 2% increase or decrease in sales price affects NPV, assuming all other factors remain the same (ceteris paribus).

Steps:

1. Identify Influential Variables: Determine key variables that significantly impact the Net Present Value (NPV) or Internal Rate of Return (IRR) of the project.Variables could include costs, revenues, discount rates, inflation rates, project duration, etc.
2. Establish Mathematical Relationships: Create a mathematical model that represents the relationship between the identified variables and the NPV or IRR. For example, calculate NPV.
3. Vary Variables Individually: Adjust one variable at a time while keeping other variables constant to analyse its impact. Increase or decrease the value of each variable within a range to observe changes in NPV or IRR.
4. Analyse Impact on NPV or IRR: Evaluate how changes in each variable affect NPV or IRR.

5. Interpretation of Results: Identify which variables have the most significant impact on NPV or IRR. Determine the level of sensitivity of NPV or IRR to changes in these variables.

Advantages:

- Helps identify critical variables impacting financial metrics directly.
- Provides a clear understanding of the impact of individual input factors on the overall outcome.

Disadvantages:

- Assumes other variables remain constant, which might not align with real-world scenarios.
- Doesn't consider the probability of change; hence, it lacks realism in reflecting the actual dynamic business environment.

Q9. Elaborate on Scenario Analysis

A.

Scenario analysis evaluates multiple scenarios involving changes in various input variables simultaneously, unlike sensitivity analysis. It examines different possible situations or scenarios like best-case, base-case, and worst-case, considering a range of potential outcomes based on variations in multiple input factors. It aims to comprehend the effects of combined changes in input factors on financial metrics, catering to a broader understanding of potential outcomes.

Advantages:

- Considers multiple changes at once, providing a more comprehensive view.
- Incorporates diverse scenarios, covering a range of potential business conditions.

Disadvantages:

- The range of scenarios might still be limited and not cover all possible real-world situations.
- Can be complex and challenging to manage due to a large number of variables and scenarios possible.

Q10. What are differences between Sensitivity Analysis and Scenario Analysis?

- Scope: Sensitivity analysis involves analysing the impact of individual variables, while scenario analysis considers changes in multiple variables simultaneously.
- Complexity: Sensitivity analysis is simpler and straightforward, focusing on one factor at a time, whereas scenario analysis is more complex, dealing with multiple changes.
- Outcomes: Sensitivity analysis often results in simplistic outcomes concerning limited input variations, whereas scenario analysis provides varied and comprehensive outcomes.

- Approach: Sensitivity analysis changes one variable at a time in isolation, while scenario analysis constructs diverse scenarios by varying multiple factors, some of which may be correlated.

  Understanding these two methods is crucial in comprehending the implications of changes in input variables on project evaluation metrics, aiding in more informed capital budgeting decisions.

Q11. What is Decision Tree Analysis?

A. Decision Tree Analysis

- Decision tree analysis involves depicting decision-making processes via a branching tree-like structure, where choices and potential outcomes are evaluated sequentially.
- Integral in capital budgeting, decision trees assist in assessing multiple scenarios, weighing outcomes, and making rational investment decisions.

Structure of a Decision Tree:

At a decision node, a choice is made, leading to various possible outcomes represented at chance nodes.

- Outcomes, such as good, bad, best case, worst case, or proceed and don't proceed, reflect potential scenarios branching from decision points.
- The tree structure denotes a hierarchy where outcomes are evaluated systematically, leading from right to left.
- The analysis begins by computing expected monetary value (NPV) at the end nodes, moving backward to determine the most rational path.
- Rational decisions are made by choosing paths that maximize profits or minimize costs, not driven by personal preferences.

Key Nodes and Components:

- Decision nodes: Points where choices are made regarding various alternatives.
- Events/ Chance nodes: Represent outcomes or events with associated probabilities.
- Outcomes: Depicted as circles, representing potential results of decisions and events.

Application of Probabilities

Probabilities associated with chance nodes indicate the likelihood of specific outcomes, providing a nuanced understanding of potential scenarios.

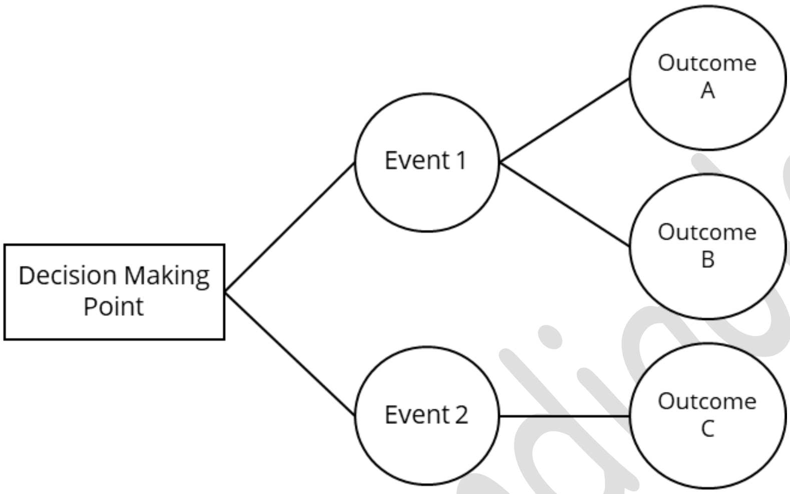
Decision-Making Process in Decision Trees

The evaluation starts from the right (decision nodes) and progresses leftwards, assessing alternatives logically based on monetary implications.

Steps in Decision Tree Analysis:

- Define the investment problem.
- Identify alternatives for evaluation.
- Draw a decision tree.
- Evaluate alternatives using the decision tree structure.
- Make a rational decision based on maximizing profits or minimizing costs.

Diagram of Decision Tree:



In a decision tree when joint probabilities are computed, the computation starts from right to left and not left to right.

Q12. How is Monte Carlo Simulation exercise conducted?

A.

1. **Monte Carlo Simulation Process:**

   Originating from Monaco's resort town, Monte Carlo, this method utilizes mathematical and statistical tools to simulate outcomes, particularly in gambling and risk analysis.

   The process involves choosing random paths using a random number generator and analysing multiple outcomes to create a distribution curve, showcasing a range of potential results.

2. **Simulation Application and Decision-Making:**

   Monte Carlo simulation helps in projecting multiple outcomes, generating a range of possible Net Present Values (NPVs) rather than a single value, aiding in decision-making.

It provides insights into various scenarios, assisting in risk assessment and allowing a more comprehensive understanding of potential returns and uncertainties in investment decisions.

3. Understanding Simulation Elements:

- Parameters: Input variables controlled by the investor in a simulation model, representing factors within their control, such as investment costs or interest rates.
- Exogenous Variables: Uncontrollable inputs with stochastic nature, such as market prices, which exhibit probability distributions without precise predictability.
- Stochastic Variables: These variables cannot be precisely determined but possess probability distributions, contributing to the uncertainty within the simulation model.

4. Practical Application and Process Steps:

Step 1: Model Creation

- Identify Exogenous Variables: These are stochastic (random) variables in the model that influence outcomes but are beyond our control.
- Determine Parameters: Inputs to the model, some are in control (modifiable) while others are not.
- Develop Model: Create a model that accounts for various exogenous variables and parameters affecting the outcome (e.g., Net Present Value - NPV).

Step 2: Parameter Specification and Probability Distribution

- Assign Parameter Values: Specify values for parameters within the model.
- Define Probability Distributions: Establish probability distributions for exogenous variables (e.g., inflation rate, GDP, market sale price) as these are uncertain and not directly measurable.

Step 3: Random Value Selection

- Generate Random Numbers: Choose random numbers.
- Map to Probability Distribution: Use the random numbers to select corresponding values from the established probability distributions of exogenous variables.

Step 4: Iterative Process

- Choose Exogenous Variables: Based on random numbers, select values from probability distributions of exogenous variables.

- Repeat Iteratively: Conduct multiple iterations (large number) to acquire a substantial set of NPV values.

Step 5: NPV Computation

- Calculate NPV: Compute NPV values based on the chosen values of exogenous variables in each iteration.

Step 6: Analysis and Visualization

- Plot NPV Probability Distribution: Create a probability distribution plot of NPV values obtained from multiple iterations.
- Compute Mean and Standard Deviation: Calculate the mean and standard deviation of the NPV values.

Step 7: Outcome Assessment

- Define Confidence Intervals: Determine the range of NPV outcomes within defined confidence intervals, indicating the level of certainty or uncertainty associated with the NPV estimation.

By following these steps, a Monte Carlo simulation allows for a comprehensive assessment of NPV under varying conditions and uncertainties, providing insights into potential outcomes and associated risks.

5. Advantages of Monte Carlo Simulation in Capital Budgeting:

- Range of Outcomes: Provides a range of potential outcomes, allowing identification and consideration of both good and bad outcomes.
- Handling Exogenous Variables: Capable of managing and incorporating exogenous variables with their uncertainties into the analysis.
- Handling Complex Interdependencies: Considers complex interdependencies between variables, compelling decision-makers to consider uncertainties and interdependencies in decision-making.

6. Disadvantages of Monte Carlo Simulation in Capital Budgeting:

- Computational Complexity: Conducting numerous simulations for thousands or millions of inputs becomes laborious and computationally challenging.
- Difficulty in Probability Distribution: Difficult for decision-makers to provide a precise probability distribution for all variables due to uncertainties.
- Lack of Precision: The imprecise nature of simulations leads to discomfort, especially in dealing with extreme or tail outcomes, where decision-makers need more precise information for critical decisions.

- Complex Modelling by Experts: Expert-led modelling can become overly intricate, involving numerous variables, distributions, and models, which might be too convoluted for practical use.
- Risk Assessment and NPV Impact: Usage of a risk-free rate for discounting in complex models may not accurately represent actual project risk, resulting in NPV values that significantly differ from expected outcomes, overlooking crucial adjustments for capital and risk within cash flows.

Q13. How are Replacement Decisions made?

A. Replacement decisions involve comparison between an old machine and a new machine in terms of cash flows, useful life, costs including depreciation, and potential tax implications.

Evaluates whether replacing the old machine with a new one is beneficial based on factors like increased efficiency, productivity, and tax considerations.

Structured Approach for Replacement Decision:

- Step 1: Initial Net Cash Outflow Calculation:

  Computes the net cash outflow for both the old and new machines, considering the difference between the book value and market value, and tax implications.

  Old Machine: (Book Value – Market Value) *Tax Rate = Tax Savings

  New Machine: Purchase Value of New Machine

  Cash Flow = Cost of New Machine – (Tax Savings+ Market Value of Old Machine)

- Step 2: Evaluation of Changing Cash Flows:

  Assesses the changes in cash flows, operating costs, and depreciation to determine the impact on costs and benefits.

  (Change in Sales +/- Change in Operating Cost – Change in Depreciation)*(1- Tax) + Change in Depreciation

  OR

  (Change in Sales +/- Change in Operating Cost)*(1- Tax) + (Change in Depreciation * Tax)

- Step 3: Present Value of Cash Flows:

  Determines the present value of all cash flows for both machines, incorporating salvage values and yearly cash flows.

  Cash Inflows = Present Value of Yearly Cash Flows + Present Value of Salvage

- Step 4: Comparative Analysis - NPV Computation:

NPV computation is executed, where the benefits (present value of cash flows) are compared against the costs. If NPV > 0, replacement is recommended.

Step 1+ Step 3

Q14. What is an Optimum Replacement Cycle? Elaborate

A. **Continuous Replacement Cycle:** Sometimes, projects involve continuous replacement cycles, altering the NPV decision rules. To determine the optimal replacement cycle, the concept of Equivalent Annual Cost (EAC) is used.

EAC Formula: EAC = PVCF/PVAF

Efficiency and Operating Costs: The decision considers the machine's aging, leading to reduced efficiency, increased operating costs, and decreased resale value. This influences the determination of the optimal replacement cycle through the EAC concept.

Computation: Lower EAC values indicate lower annual costs associated with replacements over the project's life.

Optimum Replacement: The replacement cycle or equipment option with the lowest EAC represents the most cost-effective choice in terms of annual costs when considering ongoing replacements or equipment upgrades and ensure that on an annualized basis, it incurs the least cost over the project's life or the replacement cycle.

Q15. What is adjusted present value?

A. APV is the summation of the base case NPV and the present value of tax benefits on interest payments. Separates the investment and financing decisions, evaluating project returns and tax benefits independently.

Adjusted PV = Base Case NPV (on unlevered cost of capital + PV of tax benefits on interest

SECURITY ANALYSIS 1Q

Q 1. What is Equity Research and what are the tools usually used in it?

A. Equity Research is that area of finance or Investment Banking that involves the analysis of company's financial performance and other factors to determine whether the equity share of the same company should be bought, sold, or continued to be hold.

This research can also be applied in any merger and acquisition to decide about the swap or exchange ratio.

People involved in Equity Research i.e., the Equity Research analysts are employed by Investment Banks, Mutual Funds, Hedge Funds, Wealth management firms, stockbrokers etc. These people undertake industry research and company research using various methods such as

- Company Annual Reports
- Company Investor presentations / Conference calls
- Industry publications
- Interacting with management of various companies and industry bodies

They use various tools like

- Bloomberg
- Factcet
- Reuters
- Stockopedia
- CMIE
- Capitalline
- https://benzinga.com
- https://www.refinitiv.com
- https://marketxls.com
- https://www.stockopedia.com
- https://www.koyfin.com
- https://finbox.com
- https://www.gurufocus.com
- https://businessquant.com
- https://get.ycharts.com

SECURITY VALUATION 2Q

Q1. What are role and responsibilities of valuers?

A. ***Role of Valuers***

The valuations made by a Valuers are required statutorily for the following purposes: -

(a) Mergers/Acquisitions/ De-Mergers/Takeovers: Valuation is mandated in cases of Mergers/ Acquisitions/ De-Mergers/ Takeovers by the Income Tax Act, 1961 for the purpose of determining the tax (if any) payable in such cases.

(b) Slump Sale/ Asset Sale/ IPR Sale: Valuation is required by Insolvency and Bankruptcy Code, 2016 in case of liquidation of company and sale of assets of corporate debtor for the purpose of ascertaining fair value or liquidation value.

(c) Conversion of Debt/ Security: Valuation is a necessitated by RBI for Inbound Foreign Investment, Outbound Foreign Investment and other business transactions.

(d) Capital Reduction: SEBI regulations such as ICDR/ LODR/ Preferential Allotment etc. also require valuations to be made for listed securities for various purposes on a period basis.

(e) Strategic Financial Restructuring: Various statutes such as Companies Act, 2013, SARFAESI Act, 2002, Arbitration and Conciliation Act 1996 etc., warrant valuations to be made for meeting various statutory requirements. Valuation is also made for fulfilling IND AS purposes and may also be made on Court Orders.

Responsibilities of Valuers (IPICIGRO)

Under Rule 12(e) of the Companies (Registered Valuers and Valuation) Rules, 2017 the Model Code of Conduct for Registered Valuers is as follows:

Integrity and Fairness

1. A valuer should in the conduct of his/its business follow high standards of integrity and fairness in all his/its dealings with his/its clients and other valuers.

2. A valuer should maintain integrity by being honest, straightforward, and forthright in all professional relationships.

3. A valuer should endeavour to ensure that he/it provides true and adequate information and shall not misrepresent any facts or situations.

4. A valuer should refrain from being involved in any action that would bring disrepute to the profession.

Professional Competence and Due Care

5. A valuer should render at all times high standards of service, exercise, due diligence, ensure proper care and exercise independent professional judgment.

6. A valuer should carry out professional services in accordance with the relevant technical and professional standards that may be specified from time to time

7. A valuer should continuously maintain professional knowledge and skill to provide competent professional service based on up-to-date developments in practice, prevailing regulations/guidelines and techniques.

8. In the preparation of a valuation report, the valuer should not disclaim liability for his/its expertise or deny his/its duty of care, except to the extent that the assumptions are statements of fact provided by the company and not generated by the valuer.

9. A valuer should have a duty to carry out with care and skill, the instructions of the client insofar as they are compatible with the requirements of integrity, objectivity and independence.

Independence and Disclosure of Interest

10. A valuer should act with objectivity in his/its professional dealings by ensuring that his/its decisions are made without the presence of any bias, conflict of interest, coercion, or undue influence of any party, whether directly connected to the valuation assignment or not.

11. A valuer should not take up an assignment under the Act/Rules if he/it or any of his/its relatives or associates is not independent in relation to the company and assets being valued.

12. A valuer should maintain complete independence in his/its professional relationships and shall conduct the valuation independent of external influences.

13. A valuer should wherever necessary disclose to the clients, possible sources of conflicts of duties and interests, while providing unbiased services.

14. A valuer should not deal in securities of any subject company after any time when he/it first becomes aware of the possibility of his/its association with the valuation, and in accordance with the SEBI (Prohibition of Insider Trading) Regulations, 2015.

15. A valuer should not indulge in "mandate snatching" or "convenience valuations" in order to cater to the company's needs or client needs. A valuer should communicate in

writing with a prior valuer if there is knowledge of any prior valuer having been appointed before accepting the assignment.

16. As an independent valuer, the valuer should not charge success fee.

17. In any fairness opinion or independent expert opinion submitted by a valuer, if there has been a prior engagement in an unconnected transaction, the valuer should declare the past association with the company.

Confidentiality

18. A valuer should not use or divulge to other clients or any other party any confidential information about the subject company, which has come to his/its knowledge without proper and specific authority or unless there is a legal or professional right or duty to disclose.

Information Management

19. A valuer should ensure that he/ it maintains written contemporaneous records for any decision taken, the reasons for taking the decision, and the information and evidence in support of such decision. This should be maintained so as to sufficiently enable a reasonable person to take a view on the appropriateness of his/its decisions and actions.

20. A valuer should appear, co-operate and be available for inspections and investigations carried out by the Registration Authority, any person authorised by the Registration Authority, the Valuation Professional Organisation with which he/it is registered or any other statutory regulatory body.

21. A valuer should provide all information and records as may be required by the Registration Authority, the Tribunal, Appellate Tribunal, the Valuation Professional Organisation with which he/it is registered, or any other statutory regulatory body.

22. A valuer while respecting the confidentiality of information acquired during the course of performing professional services, should maintain proper working papers for a period of three years, for production before a regulatory authority or for a peer review. In the event of a pending case before the Tribunal or Appellate Tribunal, the record should be maintained till the disposal of the case.

Gifts and hospitality

23. A valuer, or his/its relative should not accept gifts or hospitality which undermines or affects his independence as a valuer.

24. A valuer should not offer gifts or hospitality or a financial or any other advantage to a public servant or any other person, intending to obtain or retain work for himself/

itself, or to obtain or retain an advantage in the conduct of profession for himself/ itself.

Remuneration and Costs

25. A valuer should provide services for remuneration which is charged in a transparent manner, is a reasonable reflection of the work necessarily and properly undertaken and is not inconsistent with the applicable rules.

26. A valuer should not accept any fees or charges other than those which are disclosed to and approved by the persons fixing his/ its remuneration.

Occupation, employability and restrictions

27. A valuer should refrain from accepting too many assignments, if he/it is unlikely to be able to devote adequate time to each of his/ its assignments.

28. A valuer should not engage in any employment, except when he has temporarily surrendered his certificate of membership with the Valuation professional Organisation with which he is registered.

29. A valuer should not conduct business which in the opinion of the Registration Authority is inconsistent with the reputation of the profession.

Q2. What are precautions need to be taken by a valuer before accepting any valuation assignment?

A. A good valuation is much more than just numbers. While it is critical to get the maths and application right- it is equally important to have a comprehensive understanding of the narrative behind the valuation. Attention should be given to the following points while making a valuation:

- A good valuation does not provide a precise estimate of value. A valuation by necessity involves many assumptions and is a professional estimate of value. The quality and veracity of a good valuation model does not depend just on number crunching. The quality of a valuation will be directly proportional to the time spent in collecting the data and in understanding the firm being valued.
- Valuing a company is much more than evaluating the financial statements of a company and estimating an intrinsic value based on numbers. This concept is getting more and more critical in today's day and age where most emerging business are valued not on their historical performances captured in the financial statement but rather on a narrative driven factors like scalability, ease of replication, growth potential, cross sell opportunities etc.
- Investors/users tend to focus on either numbers or the story without attempting to reach a middle ground. In both these cases, investors will fail to capture

opportunities that could have been unlocked had they been willing to reach some middle ground between the two concepts.

- A robust intrinsic value calculation using financial statements data and an error-free model makes investing a more technical subject; in reality, emotions play a massive role in moving stocks higher or lower. Not accounting for this fact, therefore, could become an obstacle in consistently getting the valuation right.

PORTFOLIO MANAGEMENT Nil Q

No New Questions

SECURITIZATION 6Q

Q1. What are Various Risks in Securitization?

A. Risks can be categorised as below:

a. Credit risk or Counterparty risk: It is the prime risk wherein investors are prone to the risk of bankruptcy and non-performance of the servicer.

b. Legal risks: There is an absence of conclusive judicial precedent or explicit statutory provisions in India on securitization transactions and therefore dispute over the legal ownership of the assets is likely to result in uncertainty regarding investor pay-outs from the pool cash flow.

c. Market risks: Market risks represent risks external to the transaction and include market-related factors that impact the performance of the transaction. Some of these risks are as follows:

   i. Macroeconomic risks: The performance of the underlying loan contracts depends on macroeconomic factors, such as industry downturns or adverse price movements of the underlying assets. For example, in the transportation industry a continuous decline in industrial production may lead to a downtrend in the use of services of the Commercial Vehicles (CVs) adversely impacting the cash flow of CVs operators. This in turn, may impact repayments on CV loans. Similarly, a fall in the prices of the CVs may increase chances of default as the borrower may wilfully default the loan and let the finance company repossess and sell the underlying vehicle instead of retaining it and continuing to pay instalments on time.

   ii. Prepayment risks: A change in the market interest rate represents a difficult situation for investors because it is a combination of prepayment risk and volatile interest rates. With a reduction in interest rates generally prepayment of retail loans increases, resulting in reinvestment risk for investors because investors may receive their monies ahead of schedule and may not be able to reinvest the amount at the same yield.

   iii. Interest rate risks: This risk is prominent where the loans in the pool are based on a floating rate and investor pay-outs are based on a fixed rate or vice versa. It results in an interest rate mismatch and can lead to a situation where the pool cash inflow, even at 100% collection efficiency, is not sufficient to meet investor pay-outs. Interest rate swaps can be used to hedge this type of risk to some extent.

Q2. What is Blockchain? **(Important)**

A. Blockchain, (Distributed Ledger Technology - DLT) is a shared, peer-to- peer, and decentralized open ledger of transactions system with no third parties in between.

This ledger database has every entry as permanent as it is an append-only database which cannot be changed or altered. All transactions are irreversible with any change in the transaction being recorded as a new transaction.

The decentralised network refers to the network which is not controlled by any bank, corporation, or government. A block chain generally uses a chain of blocks, with each block representing the digital information stored in public database.

Blockchain creates a decentralized distribution chain that gives everyone access to the ledger at the same time. No one is locked out awaiting changes from another party, while all modifications to the ledger are recorded in real-time, making changes completely transparent.

Eg of a Block Chain Transaction:

- A transaction like sending money to someone is initiated.
- Transaction is broadcasted via the network.
- The network validates the transaction using cryptography. The transaction is represented online as a block.
- Block is added to the existing block chain.
- Transaction is complete.

Q3. What are applications of Blockchain? **(Important)**

A. Following are the uses of Blockchain across various industries:

a. Financial Services: Blockchain can be used to provide an automated trade lifecycle in terms of the transaction log of any transaction of asset or property - whether physical or digital such as laptops, smartphones, automobiles, real estate, etc. from one person to another

b. Healthcare: Secure sharing of data by increasing the privacy, security, and interoperability of the data between doctors, patients & service providers by eliminating the interference of third party and avoiding the overhead costs.

c. Government: Blockchain improves the transparency and provides a better way to monitor and audit the transactions in land registration, vehicle registration and management, e-voting systems etc.

d. Travel Industry: Blockchain can be applied in money transactions and in storing important documents like passports/other identification cards, reservations and managing travel insurance, loyalty, and rewards.

e. Economic Forecasts: Blockchain makes possible the financial and economic forecasts based on decentralized prediction markets, decentralized voting, and stock trading, thus enabling the organizations to plan and shape their businesses.

Q4. What are Risks of Blockchain? **(Important)**

A. Following are the risks of Blockchain.

a. members of a particular blockchain may have different risk appetite/risk tolerances that may further lead to conflict when monitoring controls are designed for a blockchain. There may be questions about who is responsible for managing risks if no one party is in-charge, and how proper accountability is to be achieved in a blockchain.

b. The reliability of financial transactions is dependent on the underlying technology and if this underlying consensus mechanism has been tampered with, it could render the financial information stored in the ledger to be inaccurate and unreliable.

c. In the absence of any central authority to administer and enforce protocol amendments, there could be a challenge in the development and maintenance of process control activities and in such case, users of public blockchains find difficult to obtain an understanding of the general IT controls implemented and the effectiveness of these controls.

d. As blockchain involves humongous data getting updated frequently, risk related to information overload could potentially challenge the level of monitoring required. Furthermore, to find competent people to design and perform effective monitoring controls may again prove to be difficult.

Q5. What is Tokenization & What is its relationship with securitization? **(Important)**

A. Tokenization is a process of converting tangible and intangible assets into blockchain tokens. Digitally representing anything has recently acquired a lot of traction. It can be effective in conventional industries like real estate, artwork etc.

Since tokenization of illiquid assets attempts to convert illiquid assets into a product that is liquid and tradable, to some extent it resembles the process of Securitization.

Following are some similarities between Tokenization and Securitization:

(i) Liquidity: - First and foremost both Securitization and Tokenization inject liquidity in the market for the assets which are otherwise illiquid assets.

(ii) Diversification: - Both help investors to diversify their portfolio thus managing risk and optimizing returns.

(iii) Trading: - Both are tradable hence helps to generate wealth.

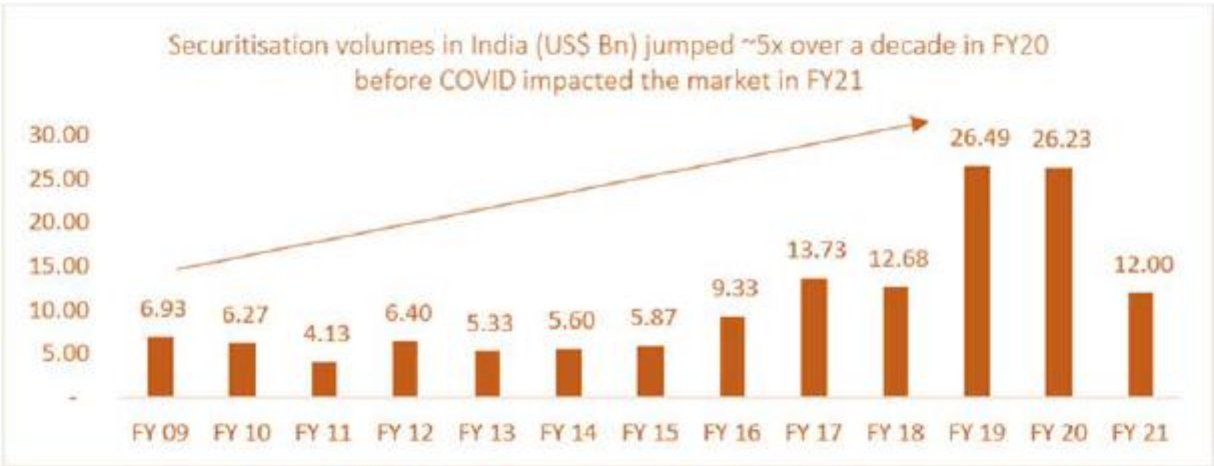
(iv) New Opportunities: - Both provide opportunities for financial institutions and related agencies to earn income through collection of fees.

Q6. Explain Securitization in Indian context. **(Important)**

A.

- Citi Bank pioneered the concept of securitization in India by bundling auto -loans into securitized instruments. Currently the market is dominated by a few players such as ICICI Bank, NHB, HDFC Bank etc
- Initially started with auto loan receivables, it has become an important source of funding for micro finance companies and NBFCs and commercial mortgage.
- In order to encourage securitization, the Government has come out with Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act, 2002, to tackle menace of Non-Performing Assets (NPAs) without approaching the Court.
- As per a report of CRISIL, securitization transactions in India touched a high of approximately Rs. 1.9 Trillion (~US$ 26 Bn), during pre-pandemic years of FY19 & FY20
- SEBI has allowed FPIs to invest in securitized debt of unlisted companies up to a certain limit.

Securitization Volumes in India



MUTUAL FUNDS 5Q

Q.1 What are Quant Funds?

A. A Quant Fund works on a data-driven approach for stock selection and investment decisions based on pre-determined rules or parameters using statistics or mathematics-based models.

Quant Funds rely on automated programmes that help in taking decision for quantum of investment as well as its timings and action and the concerned manager must act accordingly, unlike an active fund manager who selects the quantity, price of share and timing of investments (entry or exit) based on his/ her analysis and judgement.

In Quant funds the Fund Manager usually focuses on the robustness of the Models in use and monitors its performance on continuous basis and if required some modification is done in the same.

A 'Quant Fund Manager' is different from an 'Index Fund Manager'.

- The Index Fund Manager entirely hands off the investment decision purely based on the concerned Index,
- The Quant Fund Manager designs and monitors models and makes decisions based on the outcomes.

The prime advantage of Quant Fund is that it eliminates the human biasness and subjectivity and by using model-based approach also ensures consistency in strategy across the market conditions. Since a Quant Fund normally follows passive strategy their expense ratio generally tends to be lower than the actively managed Mutual Fund Schemes.

However, Quant Funds are tested based on historical data and past trends though cannot altogether be ignored but also cannot be used blindly as good indicators.

Q2. What is a Dividend Yield Fund?

A. A dividend yield fund invests in shares of companies having high dividend yields.

Dividend yield = $\frac{DPS}{CMP}$

Most of these funds invest in stocks of companies having a dividend yield higher than the dividend yield of a particular index, i.e., Sensex or Nifty. The prices of dividend yielding stocks are generally less volatile than growth stocks and offer growth potential. Among diversified equity funds, dividend yield funds are a medium-risk proposition. But these funds have not always proved resilient in short- term corrective phases.

There are two options for earning Income from Mutual Fund Schemes:

1. **Growth/Appreciation or Cumulative Option:** Under this option, the investor doesn't get any intermittent income. The investor gets income only at the time of withdrawal of investment. Till the time of withdrawal, the return gets accumulated & is paid back to the investor at the time of withdrawal in the form of capital gain.

2. **Dividend Option:** At a regular frequency may be monthly/quarterly/half yearly or Annual, the Scheme declares dividend to the unitholders of the Scheme. Dividend option is further divided in two sub-options as under:

- Dividend Payout Option: Dividends are paid out to the unit holders under this option. However, the NAV of the units falls to the extent of the dividend paid out and applicable statutory levies.
- Dividend Re-investment Option: The dividend that accrues on units under option is re- invested back into the scheme at ex-dividend NAV. Hence, investors receive additional units on their investments in lieu of dividends.

Option	**Dividend Reinvestment**	**Growth**
Initial investment	Rs. 50,000	Rs. 50,000
NAV	Rs. 10	Rs. 10
Units received	5,000	5,000
NAV at the end of one year	Rs. 15	Rs. 15
Declaration of a dividend of Rs. 2 per unit		
Dividend received	Rs. 10,000	NIL
Dividend reinvestment	Rs. 10,000	NIL
NAV post dividend distribution	Rs. 13 (15-2)	Rs. 15
Units for dividend reinvestment	769.23 (Rs. 10,000/13)	NIL
Total units	5,769.23	5,000
Total value of investments	Rs. 74,999.99	Rs. 75,000

Q3. How does one evaluate Mutual Funds?

A. Selection of a Mutual Fund investment is as important as its performance evaluation.

Why should one evaluate performance of a Mutual Fund investment?

- To ensure that fund continues to generate maximum profits with minimum risk.
- If performance is not up to the mark, then a replacement decision has to be taken.
- Past performance cannot guarantee the future performance.

Since market is subject to fluctuations, evaluation of performance on daily basis is not advisable. Further, at least a time of 3 to 5 year should be given to equity fund to assess its return. However, ideally the performance should be evaluated at least every six/twelve month.

Parameters used to evaluate the performance of any Mutual Fund:

Quantitative Parameters

These parameters consist of quantitative data and numbers.

(1) Risk Adjusted Returns: - Basically it is the return of a Mutual Fund relative to the risk it assumed as benchmarked against the market and industry risk. For a given return an investor shall always opt for the fund that has lower risk.

(2) Benchmark Returns: - Benchmark can be defined as the quality or set of standards against which performance of Mutual Fund can be measured. A good Mutual Fund performs over and above its benchmark during all phases of market, this excess return is known as 'Alpha'. For example, generally Equity funds are benchmarked to the Sensex or Nifty 50. Suppose if during a particular period, Index has provided a return of 11% whereas a Mutual Fund has provided a return of 13% then the same fund has outperformed the benchmark i.e., Index. Similarly, if same Fund has provided a return of 8% then it has underperformed.

(3) Comparison to Peers: - Similar to evaluating performance of Mutual Fund against Benchmark, the comparison of relative performance of fund with its peers (of same category) is another quantitative method because evaluation of performance in isolation does not have any meaning. A good mutual fund is supposed to consistently beat its peers in performance only then it is worthwhile to hold it.

(4) Comparison of Returns across different economic and market cycles: - At the time of evaluating performance of any Mutual Fund one should not just look across different time frames such as 6 months, 12 months etc. but performance during different economic and market cycles also needs to be evaluated because, due to some special economic or market condition a Mutual Fund might have outperformed/underperformed for a short time. It may not be necessary that such conditions shall be continued in future period for ever.

(5) **Financial Measures:** - There are some financial measures that help in evaluation of performance of any Mutual Fund which are as follows:

(a) Expense Ratio: - Discussed in earlier section, it ultimately impacts the return of a Mutual Fund Scheme.

(b) Sharpe Ratio: - As discussed in the chapter on Portfolio Management, this ratio measures the Mutual Fund's performance measured against the total risk (both systematic and unsystematic) taken.

Sharpe Ratio = $\frac{R_p - R_f}{\sigma}$

(c) Treynor Ratio: - As discussed in the chapter on Portfolio Management, beta measures the volatility of return of a security vis-à-vis to the market, in mutual funds the Beta of a mutual fund measures volatility of a fund's return to return from its Benchmark. Treynor Ratio measures performance of a mutual fund against the systematic risk it has taken.

Treynor Ratio = $\frac{R_p - R_f}{\beta}$

(d) Sortino Ratio: - A variation of Sharpe Ratio that considers and uses downside deviation instead of total standard deviation in denominator.

Sortino Ratio = $\frac{R_p - R_f}{\sigma_d}$

Qualitative Parameters

Some of the Qualitative factors that need to be considered in addition to Quantitative Factors are as follows: -

(1) Quality of Portfolio: - Quality of stocks and securities in the portfolio of the Mutual Funds is an important qualitative parameter. The reason is that the quality of the portfolio plays a big role in achieving superior returns. The qualitative characteristic of portfolio of Equity Mutual Fund involves allocation of funds in top Blue-chip companies, large companies and how diversified is the portfolio. The style followed can be growth, value, or blend of the same. In Debt Funds, the quality of portfolio is measured based on credit quality, average maturity, and modified duration of the fixed asset securities.

Not only that it is necessary that Mutual Fund should hold good quality stocks or securities, but it is also necessary the investment should be as per the objective of the Fund. Under normal circumstances, a fund having lower Portfolio Turnover ratio is better.

(2) Track record and competence of Fund Manager: - Since Fund Manager decides about the selection of securities and takes investment decisions, his/her competence and conviction play a very big role. The competence of a Fund Manager is assessed from his/her knowledge and ability to manage in addition to past performance.

(3) Credibility of Fund House Team: - Team of Fund House also plays a big role towards the investors' interest. In addition to investment decisions, there are some other administrative tasks also such as redemption of units, crediting of dividend, providing adequate information etc. which play a crucial role in qualitative assessment of any mutual fund house.

Q.4 What is the role of Fund Managers in Mutual Funds

A. Like Portfolio Manager (who manages individual's fund) a Fund manager is a gatekeeper of funds of any Mutual Fund. While the main responsibility is to ensure good performance of the fund he/she is managing, there are other roles as well. The nature of Fund manager's role also depends on the fact that whether Fund is an Actively Managed Fund or a Passively Managed Fund.

- Actively Managed Funds: Fund Manager's role in these funds is more crucial as through use of his extensive research, judgement and due diligence, he/she has to outperform the market and generate positive alpha. Right stock picking can help him to outperform.

- Passively Managed Funds: Contrary to Actively Managed Funds, in these types of Funds, mainly Fund Manager's role is to match the return of the underlying index with the minimum Tracking Error.

In addition to the abovementioned primary role of a Fund Manager, following are other key roles of a Fund Manager

(a) Compliances: A Fund Manager must ensure that:

  - Compliance of various Guidelines as laid down by SEBI, AMFI etc.
  - Ensuring various reporting such as Expenses Ratio, redemption of funds etc.
  - Ensuring that investors are aware of various required details and rules.
  - Ensuring that all required documents are furnished on time.

(b) Constant Monitoring the Performance of the Fund: - The role of a Fund Manager does not end with selection of securities or avenues for investments, but he/ she also has to evaluate them on a continuous basis. It is the Mutual Fund Manager's decision to enter or exit market that maximises the wealth of unit holders. The performance of a Fund Manager is not only judged on the basis of return but also on growth achieved above inflation and interest rate.

(c) Creation of Wealth and Protection: - This role can be considered as a fundamental role of a Fund Manager. Though wealth creation for investors is very important but reckless risk taking should be avoided. The investments should be made after a thorough research using Fundamental Analysis and Technical Analysis techniques.

(d) Control over the works outsourced to third parties: - In many cases some of the works of the Funds are required to be outsourced to any third party. In such cases, it is the duty of the Fund Manager to exercise proper control over functioning of the third party to ensure error free operations.

Q.5 What is the role of FIIs in Mutual Funds?

A. The term FIIs refers to Foreign Institutional Investors.

FIIs are large foreign groups with substantial investible funds. FIIs are registered abroad with a view to investing in other nations to invest in equity market, hedge funds, pension funds and mutual funds. FIIs have strong research teams which guide them to invest in a country with a possibility of strong return in equity market.

FIIs are an important source of capital in any economy especially in developing economies. Normally, FIIs fuel a bullish market for a short period of time and hence a nation experiences a strong inflow of foreign currency in its financial system at that time.

FIIs can invest in stock directly or through Mutual Funds. They can buy units of domestic mutual funds either directly from the issuer of such securities or through a registered stockbroker on a recognized stock exchange in India. These investments are subject to limits notified by SEBI. Foreign institutional investors play a very important role in any economy. The FIIs plays an important role for Indian Economy through their investment in Mutual Funds because of following reasons:

(a) Enhanced Corporate Governance: - Generally FIIs before making investment in any Mutual Fund carry out a thorough due diligence of Corporate Governance. Hence, Corporate Governance has improved largely in the Mutual Funds.

(b) Improved Competition in Market: - With the investment of FIIs in Mutual Funds improvement takes place in the capital market.

(c) Improved Inflow of Capital in the economy: - With the investment of funds in Mutual Funds in the economy not only employment is generated but the position of Foreign Exchange also improves.

DERIVATIVES ANALYSIS AND VALUATION 26Q

Q1. What are Exotic Options?

A. Exotic options are the classes of option contracts with structure, features & expiry dates different from plain vanilla options.

Exercise of Exotic option is some type of hybrid of American and European options and hence expiry falls somewhere in between these options.

Differences between an Exotic Vs. Traditional Option

a. An exotic option can vary in terms of pay off and time of exercise.

b. These options are more complex than vanilla options.

c. Mostly Exotic options are traded in OTC market.

Q.2 What are various Types of Exotic Options?

The most common types of Exotic options are as follows:

(a) Chooser Options: This option provides a right to the buyer of option after a specified period of time (prior to contract expiry) to decide whether purchased option is a call option or put option. *Premium of such an option will be max of price of a call option or put option at the time of initiation of the contract*

(b) Compound Options: Also called as split fee option or 'option on option'. This option provides a right or choice not an obligation to buy another option at specific price on the expiry of first maturity date. Thus, it can be said in this option the underlying is an option. The payoff depends on the strike price of second option on the date of exercise of the first option. If second option is priced higher than what it originally was, then the first option will be exercised.

Types of compound options

Call	Put	Call	Put
⬇	⬇	⬇	⬇
Call	Call	Put	Put

(c) Barrier options: The unique feature of this option is that contract will become active only if the price of the underlying reaches a certain price during a predetermined period. Types of barrier options Kock out & Knock in further subdivided as Knock out & Knock in options.

Knock out option: If the underlying asset prices reaches a certain level, the option CEASES to exist.

Knock in Option: If the underlying asset prices reaches a certain level, the option COMES INTO EXISTENCE.

These knock out & Knock in options can be further sub divided as follows:

A down and Out (Knock Out)	Call	Put
A down and in (Knock in)	Call	Put
An Up and Out (Knock Out)	Call	Put
An Up and in (Knock in)	Call	Put

(d) Binary Options: Also known as 'Digital Option', this option contract guarantees the pay-off based on the happening of a specific event. If the event has occurred, the pay-off shall be pre- decided amount and if event it has not occurred then there will be no pay-off.

Cash or Nothing (Payoff is pre-determined)	Call	Put
Asset or Nothing (Payoff is the value of asset)	Call	Put

(e) Asian Options: These are the option contracts whose pay off are determined by the average of the prices of the underlying over a predetermined period during the lifetime of the option.

Average Price option pay off.

MP is replaced by Average of MP

Asian Average Price Buy Call option pay off - Max (o, S_{Avg} – K)

Asian Average Price Buy Put option pay off - Max (o, K - S_{Avg})

Average Strike option pay off.

MP is replaced by Average of MP

Asian Average Strike Buy Call option pay off - Max (o, S – S_{Avg})

Asian Average Strike Buy Put option pay off - Max (o, S_{Avg} - S)

(f) Bermuda Option: It is a compromise between a European and American options. The exercise of this option is restricted to certain dates or on expiration like European option.

(g) Basket Options: In this type of contracts the value of option is dependent on value of a portfolio i.e., a basket., instead of a single asset, generally value of the option is computed based on the weighted average of underlying constituting the basket.

(h) Spread Options: The payoff of these type of options depends on difference between prices of two underlying. Eg: Crude Spread; bond yield spreads etc

(i) Look back options: In this option on maturity date the holder of the option is given a choice to choose a most favourable strike price depending on the minimum and maximum price of an underlying achieved during the lifetime of the option; Eg for a buy call, the holder can choose the lowest price at which the underlying traded during the life of the option

Q3. What are Credit Derivatives?

A. Credit Derivatives were started in 1996, to meet the need of the banking institutions to hedge their exposure of lending portfolios.

Financial products are subject to following two types of risks:

(a) Market Risk: Due to adverse movement of the stock market, interest rates and foreign exchange rates.

(b) Credit Risk: Also called counter party or default risk, this risk involves non-fulfilment of obligation by the counter party.

Financial derivatives can be used to hedge the market risk, *credit derivatives emerged out to mitigate the credit risk.*

Accordingly, the credit derivative is a mechanism whereby the risk is transferred from the risk averse investor to those who wish to assume the risk.

There are multiple types of Credit derivatives. We will look at two types of credit Derivatives: 'Credit Default Swap' (CDS) and 'Collateralised Debt Obligation' (CDO)

Q.4 What are Credit Default Swaps?

CDS is as an insurance against the risk of default on a debt which may be debentures, bonds etc.

Credit	**Default**	**Swap**
↓	↓	↓
Loan given	**Non-payment**	**Exchange of Liability or Risk**

The buyer of a CDS gets protection against the default of a Bond / debenture from the seller of the CDS. The buyer pays a periodic premium to the seller, who in turn assumes the default risk.

In case default takes place then there will be settlement and in case no default takes place no cash flow will accrue to the buyer, just like an option contract and the agreement is terminated.

Although it resembles the options, since the element of choice is not present (i.e no one will refuse to exercise the swap when there is a default of the underlying asset) it resembles swap arrangements.

Q 5. What are Various Default Events?

Bankruptcy: A bankruptcy protection filing allows the defaulting party to work with creditors under the supervision of the court to avoid full liquidation.

Failure to pay: Occurs when the issuer misses a scheduled coupon or principal payment without filing for formal bankruptcy.

Restructuring: Occurs when the issuer forces its creditors to accept different terms than those specified in the original issue.

Q 6. What are main features of CDS?

The main features of CDS are as follows:

(a) Non-standardized private contract between the buyer and seller. Therefore, it is covered in the category of Forward Contracts.

(b) Not normally traded on any exchange and hence remains free from the regulations of Governing Body.

(c) The International Swap and Derivative Association (ISDA) publishes the guidelines and general rules used normally to carry out CDS contracts.

(d) CDS can be purchased from third party to protect from default of borrowers.

(e) An individual investor who is buying bonds from a company can purchase CDS to protect his/her investment from insolvency of that Company. Thus, this increases the level of confidence of investor in Bonds purchased.

(f) The cost or premium of CDS has a positive relationship with risk attached with loans. Therefore, higher the risk attached to Bonds or loans, higher will be premium or cost of CDS.

(g) If an investor buys a CDS without being exposed to credit risk of the underlying bond issuer, it is called "naked CDS".

Q 7. What are uses of CDS?

(a) Hedging- Main purpose of using CDS is to neutralize or reduce a risk to which CDS is exposed to. Thus, by buying CDS, risk can be passed on to CDS seller or writer.

(b) Arbitrage- It involves buying a CDS and entering into an asset swap. For example, a fixed coupon payment of a bond is swapped against a floating interest stream.

(c) Speculation- CDS can also be used to make profit by exploiting price changes. For example, a CDS writer assumes, who risk of default, will gain from contract if credit risk does not materialize during the tenure of contract or if compensation received exceeds potential payout.

Q 8. Who are the parties to CDS?

i. The initial borrowers- Also called 'reference entity', which are owing a loan or bond obligation.

ii. Buyer- Called 'investor' i.e. the buyer of protection. The buyer will make regular payment to the seller for the protection from default or credit event of reference entity.

iii. Seller- Called 'writer' of the CDS and makes payment to buyer in the event of credit event of reference entity. It receives a regular pay off from the buyer of CDS.

Q 9. How is a CDS Settled?

(i) Physical Settlement – This is the traditional method of settlement. It involves the delivery of Bonds or debts of the reference entity by the buyer to the seller and seller pays the buyer the par value.

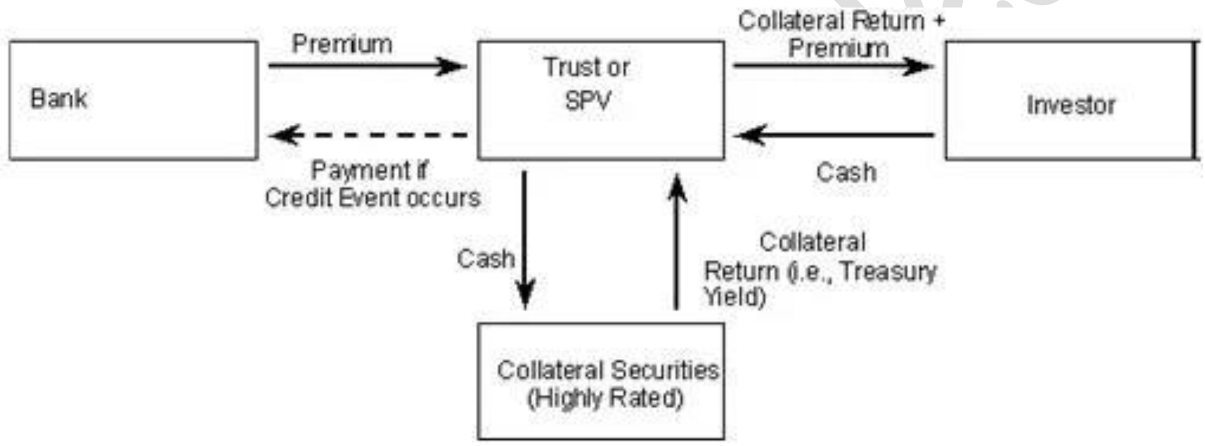
(ii) Cash Settlement - Under this arrangement seller pays the buyer the difference between par value and the market price of a debt (whatever may be the market value) of the reference entity. To increase transparency, a credit event auction was developed wherein a price is set for all market participants that choose cash settlement.

Q 10. What is a Credit Linked Note (CLN)?

A credit-linked note (CLN) is a form of funded credit derivative. It is structured as a security with an embedded credit default swap allowing the issuer to transfer a specific credit risk to credit investors. The issuer is not obligated to repay the debt if a specified event occurs. This eliminates a third-party insurance provider.

It is a structured note issued by a special purpose company or trust, designed to offer investors par value at maturity unless the referenced entity defaults. In the case of default, the investors receive a recovery rate.

The purpose of the arrangement is to pass the risk of specific default onto investors willing to bear that risk in return for the higher yield it makes available. The CLNs themselves are typically backed by very highly rated collateral, such as U.S. Treasury securities.



Step 1: A bank lends money to a company, XYZ.

Step 2: At the time of loan issues credit-linked notes

Step 3: CLNs are bought by investors.

Step 4: The interest rate on the notes is determined by the credit risk of the company XYZ.

Step 5: The funds the bank raises by issuing notes to investors are invested in bonds with low probability of default.

Step 6: If company XYZ is solvent, the bank is obligated to pay the notes in full.

Step 7: If company XYZ goes bankrupt, the noteholders/investors become the creditor of the company XYZ and receive the company XYZ loan.

Step 8: The bank in turn gets compensated by the returns on less-risky bond investments funded by issuing credit linked notes.

Q 11. What is an Asset Backed Security (ABS)?

A. ABS is a pool of assets that consists of any debt like credit card debt, outstanding auto loans, student loans, or any other debts.

Figure 8.1 An asset-backed security (simplified); bp = basis points (1bp = 0.01%).

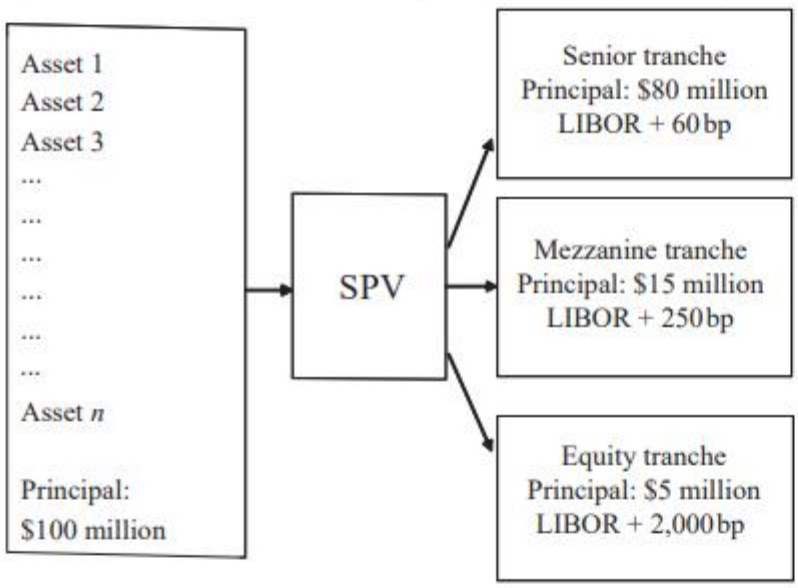
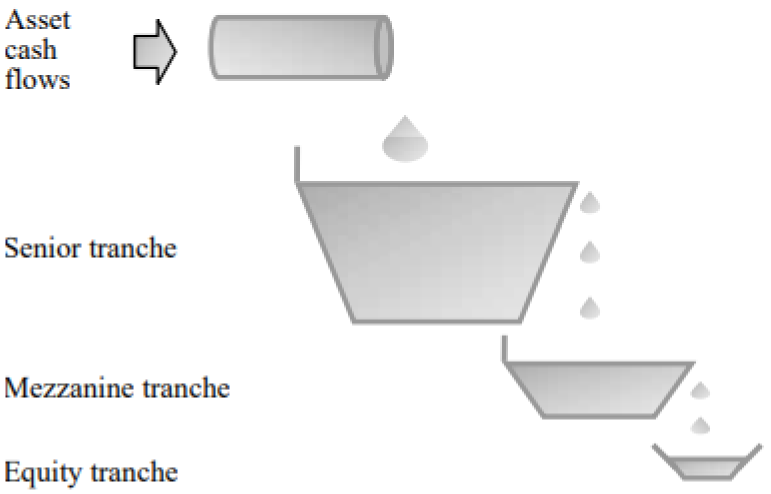


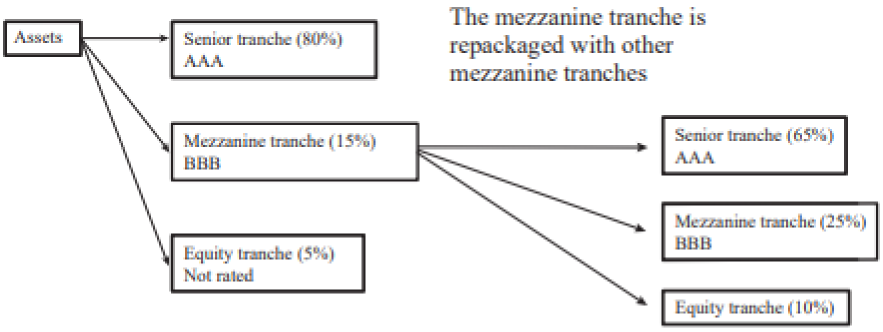
Figure 8.2 The waterfall in an asset-backed security.



Q 12. What are CDOs?

A CDO is an ABS issued by a special purpose vehicle (SPV). The SPV is a business entity or trust formed specifically to issue that collateralized debt obligation (CDO). A CDO consists of a pool of debt, such as auto loans or home equity loans & mortgage loans and other ABS. It is a way of creating securities with widely different risk characteristics from a portfolio of Debt Instruments

Figure 8.3 An ABS CDO (simplified).



Q 13. What are various Types of CDOs?

The various types of CDOs are as follows:

(a) Cash Flow Collateralized Debt Obligations (Cash CDOs): Cash CDO is a CDO which is backed by cash market debt or securities which normally have low risk weight. This structure mainly relies on the collateral's risk weight and collateral's ability to generate sufficient cash to pay off the securities issued by SPV.

(b) Synthetic Collateralized Debt Obligations: It is similar to Cash Flow CDOs but with the difference that instead of transferring ownerships of collateral to SPV (a separate legal entity), synthetic CDOs are structured in such a manner that credit risk is transferred by the originator without actual transfer of assets.

Normally the structure resembles the hedge funds where in the value of portfolio of CDO is dependent upon the value of collateralized instruments and market value of CDOs depends on the portfolio manager's ability to generate adequate cash and meeting the cash flow obligations (principal and interest) in timely manner.

While in cash CDO the collateral assets are moved away from Balance Sheet, in synthetic CDO there is no actual transfer of assets instead economic effect is transferred.

This effect of transfer economic risk is achieved by creating provision for Credit Default Swap (CDS) or by issue of Credit Linked Notes (CLN), a form of liability.

This structure is mainly used to hedge the risk rather than balance sheet funding. Further, for banks, this structure also allows the customer's relations to be unaffected. This was started mainly by banks who want to hedge the credit risk but not interested in taking administrative burden of sale of assets through securitization.

Technically, speaking synthetic CDO obtain regulatory capital relief benefits vis-à-vis cash CDOs. Further, they are more popular in European market due to the reason of less legal documentation requirements. Synthetic CDOs can also be categorized as follows:

(i) Unfunded: - Comprises only of a CDS.

(ii) Fully Funded: - Will be through issue of Credit Linked Notes (CLN).

(iii) Partially Funded: - Partially through issue of CLN and partially through CDS.

(c) Arbitrage CDOs: The issuer captures the spread between the return realized collateral underlying the CDO and cost of borrowing to purchase these collaterals. In addition to this issuer also collects the fee for the management of CDOs. This arbitrage arises due to acquisition of relatively high yielding securities with large spread from open market.

Q 14. What are various Risks involved in CDOs?

A. CDOs are structured products and just like other financial products are also subject to various types of Risk.

The main types of risk associated with investment in CDOs are as follows:

(a) Default Risk: - Also called 'credit risk', it emanates from the default of underlying party to the instruments. The prime sufferers of these types of risks are equity or junior tranche in the waterfall.

(b) Interest Rate Risk: - Also called Basis risk and mainly arises due to different basis of interest rates. For example, asset may be based on floating interest rate but the liability may be based on fixed interest rates. Though this type of risk is quite difficult to manage fully but commonly used techniques such as swaps, caps, floors, collars etc. can be used to mitigate the interest rate risk.

(c) Liquidity Risk: - Another major type of risk by which CDOs are affected is liquidity risks as there may be mismatch in coupon receipts and payments.

(d) Prepayment Risk: - This risk results from unscheduled or unexpected repayment of principal amount underlying the security. Generally, this risk arises in case assets are subject to fixed rate of interest and the debtors have an option to prepay. Since, in case of falling interest rates they may pay back the money.

(e) Reinvestment Risk: - This risk is generic in nature as the CDO manager may not find adequate opportunity to reinvest the proceeds when allowed for substitutions.

(f) Foreign Exchange Risk: - Sometimes CDOs are comprised of debts and loans from countries other than the country of issue. In such a case, in addition to above mentioned risks, CDOs are also subject to the foreign exchange rate risk.

Q 15. What are Real Options?

Real Options methodology is an approach to capital budgeting that relies on Option Pricing theory to evaluate projects. Insights from option-based analysis can improve estimates of project value and, therefore, has potential, in many instances to significantly enhance project management. However, Real options approach is intended to supplement, and not replace, capital budgeting analyses based on standard Discounted Cash Flow (DCF) methodologies.

Q 16. What are Differences between Real Option & Financial Option?

Before we further discuss the various aspects of Real Option it is important to first understand How Real Option is different from Financial Option which is as follows:

Basis	Financial Options	Real Options
Underlying	Have underlying assets that are normally traded in the market i.e. shares, stocks, bonds, commodity etc.	Have underlying the projects that are not traded in the market.
Pay-off	In most of the cases it is specified in the contracts and hence is fixed.	It is estimated from the project cash flows and hence can be varied.
Exercise Period	Mostly the period of these options is short and can go maximum upto 1 year.	The period of these options mostly starts from the end of 1st year and higher than the Financial Options.
Approach	Since these options are normally traded in the market they are "Priced".	Since these options are used to make decisions, they are "Valued".

Q 17 What are various types of options that may exist in a capital budgeting project?

Long call:

- Right to invest at some future date, at a certain price.
- Generally, any flexibility to invest, to enter a business, to expand a business.

Long put:

- Right to sell at some future date at a certain price.
- Right to abandon at some future date at zero or certain price.

- Generally, any flexibility to disinvest, to exit from a business.

Short call:

- Promise to sell if the counterparty wants to buy.
- Generally, any commitment to disinvest upon the action of another party.

Short put:

- Promise to buy if the counterparty wants to sell.
- Generally, any commitment to invest upon the action of another party.

Q 18. How are real options Valued?

A. The methods employed to valuation of real options are same as used in valuation of Financial Options. Broadly, following methods are employed for Valuation of Financial Options.

(a) Binomial Model

(b) Risk Neutral Method

(c) Black-Scholes Model

Q 19. What are various types of Real Options?

Following are broad type of Real Options:

Growth Options

Even if Some projects have a negative or insignificant NPV, managers may still be interested in accepting the project as it may enable companies to find considerable profitability and add value in future. ***This case of real option is like European Call Option.***

Some of the examples of such options are as follows:

- Investment in R&D activities
- Heavy expenditure on advertisement
- Initial investment in foreign market to expand business in future
- Acquiring making rights
- Acquisition of vacant plot with an intention to develop it in future.

The purposes of making such investments are as follows:

- Defining the competitive position of firm hence it is called strategic investments.

- Gaining knowledge about projects from profitability.
- Providing the manufacturing and making flexibility to the firm.

Abandonment Options:

Once funds have been committed in any Capital Budgeting project it cannot be reverted without incurring a heavy loss. However, in some cases due to change in economic conditions the firm may like to opt for abandoning the project without incurring further huge loses.

The option to abandon the project is like an ***American Put Option*** where option to abandon the project shall be exercised if value derived from project's assets is more than PV of continuing the project for one or more period.

Timing Options

In traditional capital budgeting the project can either be accepted or rejected, implying that this will be undertaken or forever not. However, in real life sometimes a third choice also arises i.e., delay the decision until later, i.e., option when to invest. Possible reasons for this delay may be availability of better information or ideas later. ***This case of real option is like American Call Option.***

Q20. Explain weather derivatives?

- Several businesses like airlines, juice manufacturing units and farmers are highly exposed to weather.
- To hedge Volumetric risk arising out of unfavourable weather patterns, a new class of financial instruments called **Weather Derivatives** have been introduced.
- A weather derivative has its underlying "asset", a weather measure like rainfall, temperature, humidity, wind speed, etc.
- The underlying of weather derivatives is represented by a weather measure, which influences the trading volume of goods.
- The primary objective of weather derivatives is to hedge volume risk, rather than price risk, that results from a change in the demand for goods due to a change in weather.
- The first weather transaction was executed in 1997 in in an OTC transaction by Aquila Energy Company
- The market was jump started during the warm Midwest/Northeast El Nino winter of 1997-1998, when the unusual higher temperatures led to companies protecting

themselves from significant earnings decline. Since then, the market has rapidly expanded.

- Difference between Weather derivative & an insurance contract:
  - Insurance provides protection to extreme, low probability weather events, such as earthquakes, hurricanes, and floods, etc.
  - Derivatives can be used to protect the holder from all types of risks, including uncertainty in normal conditions that are much more likely to occur where less dramatic events can lead to huge losses.
- In a Weather derivative contract between a buyer and a seller, the seller of receives a premium from a buyer with the understanding that the seller will provide a monetary amount in case the buyer suffers any financial loss due to adverse weather conditions. In case no adverse weather condition occurs, then the seller makes a profit through the premium received.

Q21. Elaborate on Issues in Pricing a weather derivative contract.

A. Data: - The reliability of data is a big challenge as the availability of data quite differs from one country to another and even agency to agency within a country.

Forecasting of weather: - Though various models can be used to make short term and long- term predictions about evolving weather conditions but it is difficult to predict the future weather behaviour as it is governed by various dynamic factors. Generally, forecasts address seasonal levels but not the daily levels of temperature.

Temperature Modelling: - Temperature is one of the important underlying for weather derivatives. The temperature normally remains quite constant across different months in a year. Hence, there is no such Model that can claim perfection and universality.

Q22. What are Electricity Derivatives?

A. Spot electricity prices are volatile, due to
  - smaller market size
  - dynamic factors such as
  - change in fuel supply positions.
  - weather conditions
  - transmission congestion
  - variation in RE generation, and
  - physical attributes of production and distribution

Hedging instruments that reduces price risk exposures for market participants i.e., generators, buyers and load serving entities are required.

Derivative contracts linked with spot electricity prices as underlying can help market participants to hedge from price risk variations.

This will help the buyer to pay a fixed price irrespective of variation in spot electricity prices as variations are absorbed by derivative instruments.

Like other derivatives the vanilla forms of electricity derivatives are:

(i) forwards,

(ii) futures, and

(iii) swaps.

Power contracts also play the primary roles in offering future price discovery and price certainty to generators, distributing companies and other buyers.

Q23. Elaborate on Electricity Forwards

A. Electricity Forward contracts represent the obligation to buy or sell a fixed amount of electricity at a pre-specified contract price, known as the forward price, at a certain time in the future (called maturity or expiration time). Forwards are custom-tailored supply contracts between a buyer and a seller, where the buyer is obligated to take power and the seller is obligated to supply.

Payoff of an electricity Forward Contract = (ST - F); where ST is the electricity spot price at time T. Here the underlying electricity is a different commodity at different times. The settlement price ST is usually calculated based on the average price of electricity over the delivery period at the maturity day "T".

Q24. Elaborate on Electricity Futures

A. Electricity Futures are contracts for the delivery of a certain quantity of electricity at a specified price and a specified time in the future, sellers can sell a proportion of their production in the future market, while consumers can buy a specific amount of the power they need.

Electricity futures contracts are standardized contracts in terms of trading locations, transaction requirements and settlement procedures. The delivery quantity specified in electricity futures contracts is often significantly smaller than that in forward contracts.

Electricity futures are traded on the organized exchanges and electricity forwards are usually traded over the counter. As a result, the electricity futures prices more transparent than forward prices being reflective of higher market consensus.

Most electricity futures contracts are settled by financial payments rather than physical delivery resulting in lowering of the transaction costs.

In addition, credit risks and monitoring costs in trading futures are much lower than those in trading forwards since exchanges implement strict margin requirements to ensure the financial performance of all trading parties.

Gains and losses of Electricity Futures are paid out daily, as opposed to forward contract being cumulated and paid out in a lump sum at maturity time thus reduces the credit risks.

As compared to Electricity Forwards, the advantages of Electricity Futures lie in market consensus, price transparency, trading liquidity, and reduced transaction and monitoring costs though there are limitations of various basis risks associated with the rigidity in futures specification and the limited transaction quantities specified in the contracts.

Q.25 Elaborate on Electricity Swaps

A. Electricity Swaps are financial contracts that enable their holders to pay a fixed price for underlying electricity, regardless of the floating electricity price, or vice versa, over the contracted time.

They are typically established for a fixed quantity of power referenced to a variable spot price at either a generators or a consumer's location.

Electricity Swaps are widely used in providing short-to-medium term price certainty for up to a couple of years.

Like financial swaps, Electricity Swap can be considered as a strip of electricity forwards with multiple settlement dates and identical forward prices for each settlement.

An Electricity Locational Basis Swap is one, wherein the holder agrees to either pay or receive the difference between a specified futures contract price and another locational spot price for a fixed constant cash flow at the time of the transaction.

These swaps are used to lock-in a fixed price at a geographic location that is different from the delivery point of a futures contract and hence are effective financial instruments for hedging the risk-based on the price difference between power prices at two different physical locations.

Q.26 Lessons from Derivative Mishaps

Following are some of the important lessons can be learnt from the above-mentioned case studies of Derivative Mishaps.

A. *Don't buy any derivative product that you don't understand*

This is an important lesson for non-financial corporation not to undertake a trade or derivative product that they do not understand. As apparent in the case of Orange County, treasurer Robert Citron speculated on derivative instruments even though he had no financial background. Similar things happened in BT's case where both P&G and Gibson Greetings were misguided.

The best way to avoid such loss is to value the instrument in house because outside persons can misguide the corporation about the potential dangers.

B. *Due diligence before making Treasury Department as a Profit Centre*

Though the main objective of establishing a Treasury Department is to reduce financing costs and manage risk optimally. But it has been seen that though initially Treasury Department made limited profits from treasury activities later started taking more risks in anticipation of higher profit. As mentioned in case study of Orange County the treasurer Citron with initial profit from yield curve play strategy leveraged its position and led to bankruptcy. The best way to avoid this situation is to avoid linking the treasurer's salary with the profit he/she makes for the organization.

C. *Specify the Risk Limits*

Proper monitoring is prerequisite for the trader to ensure that he/she should switch from arbitrageur to speculator. Baring Bank's case is a leading example for the bankruptcy of same bank as his positions remained unmonitored and unquestionable by the management.

The best way to avoid the situation of overtrading is to limit the sizes positions that can be taken by a trader, and it should be accurately reported from risk perspective. The management should ensure that the limits specified should be strictly obeyed and even daily reports of various positions taken by each trader (though a star performer) should be obtained and scrutinized before the things goes out of control.

D. *Separation of Front, Middle and Back Offices*

The three offices though are interlinked but they discharge separate functions. Accordingly, there should be a firewall in the functioning of these offices i.e. person of one office should not have the access to the functioning of other office. Barings bank's case is a classic example where Nick Leeson carried out manipulations in back office (which was under his control also) and hid the losses in error account.

To ensure that these three offices work independently it is essential that role and functions of each office should be clearly defined and followed.

E. Ensure that a hedger should not become a speculator

In most of the cases discussed above hedgers/arbitrageur have become speculators and leveraged their position.

To avoid this situation, it is essential that clear cut risk limits should be defined. Further before entering any trading strategy proper risk analysis should be carried out and if proposed strategy is crossing the limits of Risk Appetite of the company it should be avoided.

F. Carry out Stress Test, Scenario Analysis etc.

As mentioned in case of BT where Gibson Greetings was of belief that the interest rates shall remain lower and to some extent ignored the possibility of increasing of interest rates by 1%. But it happened and ultimately Gibson Greetings faced a huge loss.

To counter this type of unpredictable situation it is necessary that VAR analysis should always be followed by Scenario Analysis because as tendency a human being normally can anticipate two to three scenarios. It will be better to refer the data of at least 10 to 20 years to anticipate a Black Swan event.

Further even Simulation Test can be applied to analyze the results in various possible situations.

FOREX & RISK MANAGEMENT 8Q

Q.1 Elaborate on the Role of Swift in Foreign Exchange

Foreign Exchange Dealers/Traders use a network of communication to carry out their business transactions called SWIFT (Society for Worldwide Interbank Financial Telecommunication) which is purely a messaging system. It was founded in 1973 and headquartered at La Hulpe, Belgium, near Brussels. It is a non-profit organization. It has offices around the world. It employs a dedicated computer network system for communicating fund transfers. Since each country has their own symbol to communicate their currency, to avoid miscommunication SWIFT has assigned codes to currencies of each country. These codes are 3 lettered codes and are used internationally in cross border communications. Some of the common codes used in communication are as follows:

Country/ Region	Currency	Code
USA	US Dollar	USD
UK	Pound	GBP
China	Chinese Renminbi/Yuan	CNY
Canada	Canadian Dollar	CAD
Australia	Australian Dollar	AUD
Hong Kong	Hong Kong Dollar	HKD
India	Indian Rupee	INR
Japan	Japanese Yen	JPY
New Zealand	New Zealand Dollar	NZD
Singapore	Singapore Dollar	SGD
Sweden	Swedish Krona	SEK
Switzerland	Swiss Franc	CHF
Europe	Euro	EUR

SWIFT uses common language for financial transactions and uses a centralized data processing system. It is important to note that SWIFT is only a standardized communication system and not a transaction settlement system.

The SWIFT connects various financial institutions in more than 200 countries. The SWIFT plays an important role in Foreign Exchange dealings because of the following reasons:

- In addition to validation statements and documentation it is a form of quick settlement as messaging takes place within seconds.
- Because of security and reliability helps to reduce Operational Risk.

- Since it enables its customers to standardise transaction it brings operational efficiencies and reduced costs.
- It also ensures full backup and recovery system.
- Acts as a catalyst that brings financial agencies to work together in a collaborative manner for mutual interest.

Q2. What is a Payment Gateways?

A Payment Gateway is a virtual mode equivalent to physical mode of transfer of cash that authenticates and routes payment details in an extremely secure environment. The services ranges from collecting and sending payments to banks or to e-commerce sites for carrying out commercial transactions.

The Payment Gateway functions in essence as an "encrypted" channel, which securely passes transaction details from the buyer's Personal Computer (PC)/ Mobile Phone or Tablet to banks for authorization and approval. It involves the transfer of data in an encrypted manner from entry point to the Point of Sale (POS)/ and after approval from banker of Debit/ Credit Cards it completes the transaction/ order along with verification vide a reference number.

Q 3. What are the advantages of Payment Gateways?

A Payment Gateway provides multiple benefits such as:

- 24x7x365 convenience.
- Real time authorisation of credit/debit cards.
- Rapid, efficient transaction processing.
- Multiple payment options.
- Minimising risk by encrypting transactions and verifying other information.
- Flexible, powerful real-time reports generation.
- Facility for customer refund.
- Merchants can get rid of operating complex software and maintaining huge data.
- CA (Certifying Authority) authenticated secure servers.
- Collection of bulk data in a cost-efficient manner, with the additional benefit of being checked for card validity.
- Provision for multiple host interfaces.
- Comprehensive, simple administrative control.
- Gaining customers' support and merchants' trust.

Q 4. What are the dis-advantages of Payment Gateways?

A. Challenges that are hampering the growth of payment gateways such as:

(a) Payments may not happen at all simply because the customer may not have an account with the banks supporting the payment gateway.

(b) Some payment gateways have only limited number of banks.

(c) There are problems of reliability, delivery, and limited payment avenues and general lack of trust among customers, and doubts about the service provider.

Q 5. What are International Payment Gateways?

- These offers global/multi-currency payments, as well as an interface with multiple languages.
- Chances of customer conversion increases when a prospective customer sees the price of a product or service in their currency.
- International Payment Gateways let merchants offer their international customers the ability to pay in the currency they know best – their own.
- These Payment gateways not only accelerate but also make international payments and transactions easy.
- Customers can easily benchmark prices if it is quoted in their own currency. If anybody travels to the US or China or the UK or any other country, any expenditure is preceded by a conversion to the Indian rupee.

Q6. What are the Factors affecting Exchange Rates?

A. The major factors that affect the foreign exchange of any country are inflation rate and interest rate. The other factors that affect foreign exchange rate are as follows:

(a) *Deficit/Surplus on Capital/Current Account:* - A country's Deficit/Surplus on both Capital and Current Account plays a big role in determination of its exchange rate. While deficit in Current Account leads to depreciation of currency, the surplus results in appreciation of home currency.
In case of Capital Account if net inflow is positive then home currency is appreciated and if it is negative then home currency depreciates because of oversupply.

(b) *Trade Barriers: -* Generally with the increase in trade barriers or quota restrictions for import of goods from any country the value of own currency appreciates in the long run. For example, if India puts some restriction on import from China for any goods, then demand for Indian goods will be increased and will be sold for higher price.

(c) *Intervention by Central Bank: -* Sometimes to regulate the prices of foreign exchange the Central Bank of or Monetary Authorities of country intervenes by selling or buying foreign exchange in/from the Market.

(d) *Government Controls: -* Government Controls such as restrictions on FDI, FPI or repatriation of Foreign Exchange also affects the foreign exchange rates.

(e) *Expectations (Band Wagon Effect):* - Sometimes speculations by the speculators on any currency can have a substantial impact on exchange rate. When a dominant speculator in Foreign Exchange market expects a fall in value of any currency and he starts taking short position in the same currency, other speculators may also follow the same path. This will ultimately result in fall in the value of same currency.

Q7. Why is foreign exchange risk management Important?

(i) Protection against volatility: Exchange rates are highly volatile and can change rapidly, which can result in significant losses for a business. Foreign exchange risk management helps to protect against this volatility by allowing businesses to lock in exchange rates in advance, providing greater stability and certainty in financial planning.

(ii) Cost reduction: Effective foreign exchange risk management can help businesses reduce costs associated with foreign transactions. By minimizing currency exchange rate losses and reducing the need for hedging, businesses can save significant amounts of money in the long run.

(iii) Competitive advantage: Companies that effectively manage their foreign exchange risks can gain a competitive advantage over their competitors. They can offer more competitive prices and more attractive payment terms, which can help to attract and retain customers.

(iv) Improved cash flow: Foreign exchange risk management can also help businesses to improve their cash flow by providing greater visibility and predictability in their international transactions. This can help businesses to better manage their cash flow and ensure that they have sufficient funds to meet their obligations.

(v) Compliance with regulations: Many countries have regulations in place that require businesses to manage their foreign exchange risks. Failure to comply with these regulations can result in significant fines and penalties. Effective foreign exchange risk management can help businesses to stay in compliance with these regulations and avoid potential legal issues.

Foreign exchange risk management is critical for businesses that engage in international transactions. It helps to protect against volatility, reduce costs, gain a competitive advantage, improve cash flow, and ensure compliance with regulations. By managing foreign exchange risks effectively, businesses can achieve greater financial stability and success in the global marketplace.

Q8. What are the advantages available to exporters for hedging their exposure?

A. FCNR B & PCFC Loans are used by exporters to hedge against export receivables.

1. PCFC is available to exporters for exporting their goods in Foreign Currencies. This product is available at cheaper rate compared to other Domestic Currency rates.
2. Secondly by availing PCFC, one can hedge foreign currency transaction risk against exports receivables by settling exports collection against PCFC loans outstanding.

INTERNATIONAL FINANCIAL MANAGEMENT 9Q

Q1. What is International Financial Centre (GIFT CITY)?

International Financial Centre (IFC) is a financial centre that caters to the needs of the customers outside their own jurisdiction. IFC is a hub that deals with flow of funds, financial products and financial services even though in own land (country) but with different set of regulations and laws.

These centres provide flexibility in currency trading, insurance, banking and other financial services. This flexible regime attracts foreign investors benefitting not only to the stakeholders but as well as for the country hosting IFC itself.

Q 2. What are the Benefits of IFC?

There are numerous direct and indirect benefits of setting up IFC but some major benefits emanating from establishing IFC are as follows:

(i) Opportunity for qualified professionals working outside India to come here and practice their profession.

(ii) A platform for qualified and talented professionals to pursue global opportunities without leaving their homeland.

(iii) Stops Brain Drain from India.

(iv) Bringing back those financial services transactions presently carried out abroad by overseas financial institutions/entities or branches or subsidiaries of Indian Financial Market.

(v) Trading of complicated financial derivative can be started from India.

Q 3. What are the Constituents of IFC?

(i) Highly developed Infrastructure: - A leading edge infrastructure is a prerequisite for creating a platform to offer internationally competitive financial services.

(ii) Stable Political Environment: - Destabilized political environment brings country risk for investment by foreign nationals. Hence, to accelerate foreign participation in growth of financial centre, stable political environment is a prerequisite.

(iii) Strategic Location: - The geographical location of the finance centre should be strategic such as near to airport, seaport and should have friendly weather.

(iv) Quality Life: - The quality of life at the centre should be good as centre retains highly paid professionals from own country as well from outside.

(v) Rational Regulatory Framework: - Rationale legal regulatory framework is another prerequisite of international finance centre as it should be fair and transparent.

(vi) Sustainable Economy: - The economy should be sustainable and should possess capacity to absorb all the shocks as it will boost investors' confidence.

Q4. Elaborate on GIFT City - India's International Financial Services Centre

- To compete with its rival financial services centres situated in Dubai, Hong Kong etc. the idea of setting up an International Financial Centre in India was coined in 2007.
- The main motive of setting up IFC in India was to retain the financial services businesses in India which moves out of India.
- Since foreign investors normally remain hesitant to get registered in India, GIFT city provides them a separate jurisdiction where it is easy to do business because of relaxed tax and other laws.
- Government of India operationalized International Financial Services Centre (IFSC) at GIFT Multi Services SEZ in April 2015. The Union Budget 2016 provided competitive tax regime for the IFSC at GIFT SEZ.
- India's first International Exchange – India INX, a wholly owned subsidiary of Bombay Stock Exchange on was inaugurated on 9th January 2017. India INX has stated trading in Index, currency, commodity and equity derivatives.
- On 5th June 2017, National Stock Exchange (NSE) also launched its trading at GIFT. Initially, it started trading in derivative products in equity, currency, interest rate futures and commodities.
- GIFT IFSC provides very competitive cost of operations with very competitive tax regime, single window clearance; relax company law provisions, international arbitration centre with overall facilitation of doing business. GIFT IFSC is now moving toward unified regulatory mechanism.
- GIFT City is a new Financial & Technology Gateway of India for the World. To be internationalized, exchange controls cannot apply. So, FEMA is not applicable at GIFT city.
- New financial institutions are setting business units in GIFT as they will pay reduced taxes as valid for special economic zones and can easily offer foreign currency loans to Indian Companies abroad and foreign firms.

Q 5. What are Sovereign Funds?

A Sovereign Wealth Fund (SWF) is a state-owned investment fund comprised of money generated by the government. This money generally derived by Government from country's own surplus reserves. SWFs provide a benefit for a country's economy and its citizens. Since it is created by the Government the legal basis on which these are created varies from Government to Government. The legal basis for a sovereign wealth fund can be Constitutive Law, Fiscal Law, Constitution, Company Law or any Other Laws and Regulations.

Q 6. What are the popular sources for funding SWF?

- Surplus reserves from state-owned natural resource revenues and trade surpluses,
- Bank reserves that may accumulate from budgeting excesses,
- Foreign currency operations,
- Money from privatizations, and
- Governmental transfer payments.

Q 7. What are the common objectives of a sovereign wealth fund?

- Protection & Stabilization of the budget and economy from excess volatility in revenues/exports
- Diversify from non-renewable commodity exports.
- Earn better returns than returns on foreign exchange reserves.
- Assist monetary authorities dissipate unwanted liquidity.
- Increase savings for future generations.
- Fund social and economic development
- Ensuring Sustainable long term capital growth for target countries
- Political strategy

Q 8. What are various classifications of SWFs?

A. Like any other type of investment funds, SWFs can have their own objectives, risk tolerances, terms, and liquidity concerns etc. While some funds prefer returns over liquidity, and some may prefer vice- versa. Depending on the assets and objectives, sovereign wealth funds' risk management can range from very conservative to a high tolerance for risk. Traditional classifications of SWFs include:

- Stabilization funds
- Savings or future generation funds
- Public benefit pension reserve funds
- Reserve investment funds
- Strategic Development Sovereign Wealth Funds (SDSWF)

Q 9. What are Various types of Sovereign Investment Vehicles?

- Sovereign Wealth Funds (SWFs)
- Public Pension Funds
- State-Owned Enterprises
- Sovereign Wealth Enterprises (SWEs)

INTEREST RATE RISK MANAGEMENT 1Q

Q1. What are Benchmark Rates?

A.

- Benchmark interest is an interest rate that forms the basis for determination of other interest rates. These rates are also known as 'Reference Rates'.
- These rates are very important in any economy and banking system and especially in financial transactions as they not only form the basis of financial contracts such as bank overdrafts, loans, mortgages but are also used in other complex financial transactions.
- The benchmark rates are widely used in derivative transactions such as Forward, Future, Option Contract and especially Swap Contracts.
- The Benchmark rate also forms the basis for floating rate loans. Generally based on relative credit rating of the concerned entities spread in terms of basis points (bps) are added over and above the benchmark rate for any financial transaction loan or issuance of Bonds etc.
- These rates are decided by an independent body after considering various factors.
- In financial transactions both domestic as well as international benchmark rates are used.
- One of the most popular benchmark rates in international financial market was LIBOR (London Interbank Offered Rate). However, after coming of the news of manipulations by some banks in 2012, it was finally decided in 2017 that it would cease to exist. Accordingly, with the beginning of 1st January 2022, to enter into contracts companies are required to use Alternative Reference Rates (ARRs).

ARRs are different from LIBOR because of the following reasons :-

(i) While ARRs are based on actual overnight transactions either secured or unsecured, LIBOR is unsecured without any collateral and mainly relies on the judgment of the panel banks to a great extent.

(ii) ARRs are also considered to be near risk free rates with no term premium.

Contrary to single LIBOR for different currencies, the ARRs shall have different names, regulator, and nature. In addition to that, these will be referred on the basis of geographical referred locations of different currencies.

The different ARRs are as follows:

Region	Rate	Regulator	Nature
USA	Secured Overnight FinancingRate (SOFR)	Federal Reserve Bank ofNew York	Secured
UK	Sterling Overnight Index Average (SONIA)	Bank of England	Unsecured

Europe	Euro-Short-Term Rate (€STER)	European Central Bank	Unsecured
Japan	Tokyo Overnight Average Rate (TONAR)	Bank of Japan	Unsecured
Switzerland	Swiss Average Rate Overnight (SARON)	SIX (Swiss Stock Exchange)	Secured

In India though there are many benchmark interest rates such as Repo Rate, Prime Lending Rate, MCLR (Marginal Cost of Lending Rate) etc. but most of the common benchmark rates are MIBOR (Mumbai Interbank Offered Rate) and MIBID (Mumbai Interbank Bid Rate). While MIBOR is that interest rate at which bank will charge from borrower, the MIBID is that rate at which bank would like to borrow from other bank.

These two rates are used in majority of derivative deals such as Interest Rate Swaps, Forward rate Agreement, Floating Rate Debentures etc.

Further it is also important to note that not only benchmark rates are used in various types of financial transactions as discussed above but they also form the basis for valuation of various financial instruments especially the Bonds and Debentures.

BUSINESS VALUATION 14Q

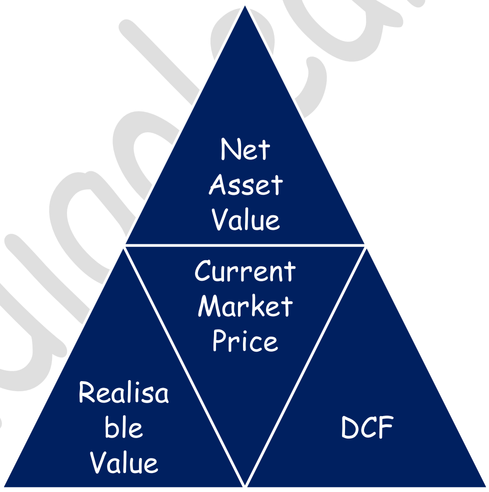
Q1. Write about the concept of Fair Value in Valuation?

A. Fair Value

An investor likes to purchase anything at the fair value – 'no less no more'.

Everyone has a different perspective of fair value. It could be the broad measure of intrinsic worth or it could be a reference to the estimated worth of a company's assets and liabilities that are listed on a company's financial statement or is could also be the sale price agreed upon by a willing buyer and seller, assuming both parties enter the transaction freely and knowledgeably.

Every valuation method has its limitations and challenges. The investor, who is the ultimate decision maker decides and chooses the most suitable method for its purpose.



Sometimes no one method is correct and enough, its preferable if a range of values i.e. minimum acceptable by seller and maximum payable by the buyer could be determined. Considering all values, the most appropriate value is arrived, such a value is the Fair Value.

One of the objectives of a valuation exercise is to identify entities that are 'attractive' in terms of the true value to a potential investor.

- A Chartered Accountant's perspective to 'fair value' would automatically envisage a transaction to be measured at the arm's length.
- For a financial analyst, the term would be akin to the present value of an entity in cash terms, and
- For a speculative investor, the term would represent the arbitrage opportunities that open up among similar entities having dissimilar value numbers put to it.

The vision of the ultimate decision maker determines which method is suitable for his/ her purpose. Also, there is no single answer to method of valuation as correct one and it will be better if a range of values i.e. minimum acceptable by seller and maximum payable by the buyer could be determined. Ultimately the final deal would depend on the negotiation among the parties.

Accordingly, following approaches can be adopted to solve the question especially involving evaluation and synthesis skill assessment requirements.

(i) Unless specified otherwise calculate valuation by as many as possible with available data.

(ii) Give comments on the valuation by each of these methods.

(iii) Supplement your conclusion with any additional information if available.

Q 2. Elaborate on Going Concern And Non-Going Concern Valuation

One of the basic accounting assumptions is that an enterprise is a going concern and will continue in operation for the foreseeable future. Hence, it is assumed that the enterprise has neither the intention nor the need to liquidate or curtail materially the scale of its operations; if such an intention or need exists, the financial statements may have to be prepared on a different basis and, if so, the basis used needs to be disclosed.

The valuation of assets of a business entity is dependent on this assumption. Traditionally, historical costing is followed in majority of the cases.

Non-Going Concern Valuation is also known as Liquidation Valuation because it is the net value realised after disposing off all the assets and discharging all the liabilities. Since an on-going firm could continue to earn the profit, which contributes to its value in addition to its liquation value the Going Concern Value is known as Total Value.

Generally, the going-concern value of a firm will be greater than its liquidation value because when it is acquired as on basis the value of its assets and considers the value of its future profitability, intangible assets, and goodwill and hence the acquired firm can charge premium for the same.

Another reason for lower valuation on non-going concern is that liquation not only implies the laying off its employees and, but it creates a feeling of bad reputation among potential investors.

Thus, valuation based on non-going concern should be applied only when investors are of view that the firm has no longer value as a going concern.

Q 3 How does one value Distressed Companies?

Some firms are clearly exposed to possible distress, though the source of the distress may vary across firms. For some firms, it is too much debt that creates the potential for failure to make debt payments and its consequences (bankruptcy, liquidation, and reorganization) whereas for other firms, distress may arise from the inability to meet operating expenses.

A company is said to be in distress when the company is unable to meet, or has difficulty paying off, its financial obligations to its creditors, typically due to high fixed costs, illiquid assets, or revenues being sensitive to economic downturns. Such distress can lead to operational distress as increasing costs of borrowings take a toll on the operations of the company as well.

Distressed companies are businesses that are likely to, or already have defaulted on their debts. Although a company may not be making payments on some, or all of its debt obligations, however, there still may be some value remaining on the instruments they hold. Just because a company cannot make payments on its debt does not mean the company is entirely worthless.

Conventional methods are not usefully deployed when valuing companies in distress as:

Discounted cashflow valuation method requires terminal value calculation which is based upon an infinite life and ever-growing cashflows. However, the assumption of perpetuity of cash flows may not be relevant in case of distressed firm because of negative cash flows.

A distressed firm generally has negative and declining revenues hence expects to lose money for some more time in the future. For such firms, estimating cash flows is difficult, since there is a high risk of bankruptcy. For firms expected to fail, DCF does not work very well, since DCF values a firm as a going concern – even if the firm is expected to survive, projections have to be made until the cash flows turn positive, else the DCF would yield a negative value for equity or firm.

Discount rates used in conventional methods reflect companies which are operationally as well as financially sound. They have to be adjusted for the probabilities of failures of the companies to be used in case of distressed companies.

Q4. What are various Methods of valuation of distressed companies?

(a) Modified Discounted Cash Flow Valuation

This method requires coming up with probability distributions for the cashflows (across all possible outcomes) to estimate the expected cashflow in each period. While computing this cash flow the likelihood of default should be adjusted for. In conjunction with these cashflow estimates, discount rates are also estimated:

- Using updated debt to equity ratios and unlevered beta to estimate the cost of equity.
- Using updated measures of the default risk of the firm to estimate the cost of debt.

However, in case of inability to estimate the entire distribution, probability of distress shall be estimated for each period and used as the expected cashflow:

Expected cash flow t = Cash flow t * (1 - Probability of distress)

(b) DCF Valuation + Distress Value

A DCF valuation values a business as a going concern. However, DCF valuations will understate the value of the firm if there is a possibility that the firm will fail before it reaches stable growth, and the assets will be sold for a value less than the present value of the expected cashflows (a distress sale value).

Thus, the value of Distressed firm can be computing by following under-mentioned steps:

(i) Value the business as a going concern by looking at the expected cashflows it will have if it follows the path back to financial health.

(ii) Determine the probability of distress over the lifetime of the DCF analysis.

(iii) Estimate the distress sale value as a percentage of book value or as a percentage of DCF value of equity estimated as a going concern.

Accordingly following formula can be used to calculate the value of equity of a distressed firm.

Value of Equity= DCF value of equity (1 - Probability of distress) + Distress sale value of equity (Probability of distress)

(C) Adjusted Present Value Model

This approach is based on the logic of separating investment decision from financing decision. Accordingly, first the value of firm is computed without debt (the unlevered firm) and then effect of debt on firm value is adjusted in the same:

Firm Value = Unlevered Firm Value + (Tax Benefits of Debt - Expected Bankruptcy Cost from the Debt)

While the first part can be computed by discounting the free cashflows to the firm at the unlevered cost of equity the second part reflects the present value of the expected tax benefits from the use of debt. The expected bankruptcy cost can be estimated as the difference between the unlevered firm value and the distress sale value:

Expected Bankruptcy Costs = (Unlevered firm value - Distress Sale Value)* Probability of Distress

(D) Relative Valuation

Relative Valuation multiples such as Revenue and EBITDA multiples are used more popular measures to value distressed firms than healthy firms because multiples such as Price Earnings or Price to Book Value etc. often cannot even be used for a distressed firm. Analysts who are aware of the possibility of distress often consider them subjectively at the point when they compare the multiple for the firm they are analysing to the industry average. For example, assume that the average telecom firm trades at 2 times revenues. So, adjust this multiple down to 1.25 times revenues for a distressed telecom firm.

Q 5. How does one Value Start-ups?

A. Following are three most common globally accepted methods of valuing a business:

(i) Earning/ Cash Flow Approach: In this approach, estimated cash flows for the foreseeable future are discounted to present value and business is valued accordingly.

(ii) Asset approach: This approach is generally used when the business is not a going concern viz. during liquidation, untimely losses etc. The assets and liabilities are valued based on their current realisable value and that is considered as value of the business.

(iii) Market approach: This approach assigns the value of a business based on the value of comparable companies in same/ similar industries, adjusted for their specific parameters.

One common feature in the above approaches is that it pre-supposes a business that is established and generates cash flows using its assets.

On the contrary it is difficult to call Start-ups "established" in any sense or assume that their cash flows (if not already spent on marketing) will remain constant. Profitability seems to be a cursed word in the startup investor circles.

Like the valuation of startups is often required for bringing in investments either by equity or debt. However, the most significant differentiating factor in the valuation of a startup is that there is no historical data available based on which future projections can be drawn.

The value rests entirely on its future growth potential, which, in many cases, is based on an untested idea and may not have been based on an adequate sampling of consumer behaviour or anticipated consumer behaviour. The estimates of future growth are also often based upon assessments of the competence, drive, and self-belief of, at times, very highly qualified and intelligent managers and their capacity to convert a promising idea into commercial success.

The major roadblock with startup valuation is the absence of past performance indicators. There is no 'past' track record, only a future whose narrative is controlled based on the founders' skill. It can be equated as founders walking in the dark and making the investors believe that they are wearing night vision goggles. While this is exciting and fun for the founders, this is risky for the investors.

This is why valuation of startups becomes critical and the role of a professional comes in – it is a way of definitively helping investors navigate the dark using facts, rather than fairy tales.

Q 6. Why traditional methods cannot be applied in valuing Startups ?

Each of the commonly used methods discussed above pre-suppose an established business – which is profitable, has established competitors and generates cash using its assets.

However, this is missing in new age startups whose value can lie majorly in the concept and potential rather than numbers with a track record.

The failure of each of the traditional methods in case of new age startups is given below:

Income approach: A vast majority of startups operate under the assumption of not generating positive cash flows in the foreseeable future. Off late, this business model has been accepted and normalised by the investor community as well. Since there are no or minimal positive cash flows, it isn't easy to value the business correctly.

Asset approach: There are two reasons why this approach does not work for new age startups:

(i) Startups have negligible assets because a large chunk of their assets are in the form of intellectual property and other intangible assets. Valuing them correctly is a challenge and arriving at a consensus with investors is even more difficult.

(ii) Start ups are new, but usually operate under the going concern assumption; hence their value should not be limited to the realisable value of assets today.

Market approach: New-age startups are disruptors. They generally function in a market without established competitors. Their competition is from other startups working in the same genre. The lack of established competitors indicates that their numbers may be skewed and not be comparable enough to form a base. However, out of the three traditional approaches, we have seen a few elements of the market approach being used for valuing new-age startups, especially during advanced funding rounds.

Q7. What are Value Drivers for startups?

While every startup can be vastly different, a few key value drivers and their impact on the valuation of a startup are given below:

Drivers	Impact on valuation
Product	The uniqueness and readiness of the product or service offered by significantly impact the company's valuation. A company that is ready with a fully functional product (or prototype) or service offering will attract higher value than one whose offering is still an 'idea'. Further, market testing and customer responses are key sub-drivers to gauge how good the product is.
Management	More than half of Indian unicorn startups have founders from IIT or IIM. While it may seem unfair prima facie, it is a fact that if the founders are educated from elite schools and colleges, the startup is looked upon more favourably by the investors and stakeholders alike. Accordingly, it is imperative to consider the credentials and balance of the management. For instance, a team with engineers is not as well balanced as a team comprising engineers, finance professionals and MBA graduates. Keeping aside the apparent subjectivity in evaluating the management, the profile of the owners plays a crucial role in valuing the startup.

Traction	Traction is quantifiable evidence that the product or service works and there is a demand for it. The better the traction, the more valuable the startup will be.
Revenue	The more revenue streams, the more valuable the company. While revenues are not mandatory, their existence is a better indicator than merely demonstrating traction and makes the startup more valuable.
Industry attractiveness	The industry's attractiveness plays a vital role in the value of a company. As good as the idea may be, to sustainably scale, various factors like logistics, distribution channels and customer base significantly impacts the startup value. For example, a new-age startup in the tourism industry will be less valuable, as innovative or unique as their offering is if significant lockdowns are expected in the future.
Demand - supply	If the industry is attractive, there will be more demand from investors, making the industry's individual company more valuable.
Competitiveness	The lesser the competitors, the more valuable the startup will be. There is no escaping the first-mover advantage in any industry. While it is easier to convince investors about a business that already exists (for example, it must have been easier for Ola to convince investors when Uber was already running successfully), it also casts an additional burden on the startup to differentiate itself from the competition.

Q8. What are Various methods for valuing startups?

There are many innovative methods for valuing startups that try to reduce the subjectivity in the valuation of startups that have come in recent times as detailed below:

Berkus Approach

The Berkus Approach, created by American venture capitalist and angel investor Dave Berkus, looks at valuing a startup enterprise based on a detailed assessment of five key success factors:

(1) Basic value,

(2) Technology,

(3) Execution,

(4) Strategic relationships in its core market, and

(5) Production and consequent sales.

A detailed assessment is carried out evaluating how much value the five critical success factors in quantitative measure add up to the total value of the enterprise. Based on these numbers, the startup is valued.

This method caps pre-revenue valuations at $2 million and post-revenue valuations at $2.5 million. Although it doesn't consider other market factor, the limited scope is useful for businesses looking for an uncomplicated tool.

(A) Cost-to-Duplicate Approach

The Cost-to-Duplicate Approach involves taking into account all costs and expenses associated with the startup and its product development, including the purchase of its physical assets. All such expenses are considered determine the startup's fair market value based on all the expenses. This approach is often criticized for not focusing on the future revenue projections or the assets of the startup.

(C) Comparable Transactions Method

With the traditional market approach, this approach is lucrative for investors because it is built on precedent. The question being answered is, "How much were similar startups valued at?"

For instance, imagine XYZ Ltd., a logistics startup, was acquired for Rs 560 crores. It had 24 crore, active users. That's roughly Rs 23 per user.

Suppose you are valuing ABC Ltd, another logistics startup with 1.75 crore users. ABC Ltd. has a valuation of about Rs 40 crores under this method.

With any comparison model, one needs to factor in ratios or multipliers for anything that is a differentiating factor. Examples would be proprietary technologies, intangibles, industry penetration, locational advantages, etc. Depending on the same, the multiplier may be adjusted.

(D) Scorecard Valuation Method

The Scorecard Method is another option for pre-revenue businesses. It also works by comparing the startup to others already funded but with added criteria.

First, we find the average pre-money valuation of comparable companies. Then, we consider how the business stacks up according to the following qualities.

- Strength of the team: 0-30%
- Size of the opportunity: 0-25%
- Product or service: 0-15%
- Competitive environment: 0-10%
- Marketing, sales channels, and partnerships: 0-10%

- Need for additional investment: 0-5%
- Others: 0-5%

Then we assign each quality a comparison percentage. Essentially, it can be on par (100%), below average (<100%), or above average (>100%) for each quality compared to competitors/ industry.

For example, the marketing team has a 150% score because it is thoroughly trained and has tested a customer base that has positively responded. You'd multiply 10% by 150% to get a factor of .15.

This exercise is undertaken for each startup quality and the sum of all factors is computed. Finally, that sum is multiplied by the average valuation in the business sector to get a pre-revenue valuation.

(E) First Chicago Method

This method combines a Discounted Cash Flow approach and a market approach to give a fair estimate of startup value. It works out:

- Worst-case scenario
- Normal case scenario
- Best-case scenario

Valuation is done for each of these situations and multiplied with a probability factor to arrive at a weighted average value.

(F) Venture Capital Method

Venture capital firms seek a return equal to some multiple of their initial investment or will strive to achieve a specific internal rate of return based on the level of risk they perceive in the venture.

The method incorporates this understanding and uses the relevant time frame in discounting a future value attributable to the firm.

The post-money value is calculated by discounting the rate representing an investor's expected or required rate of return.

The investor seeks a return based on some multiple of their initial investment. For example, the investor may seek a return of 10x, 20x, 30x, etc., their original investment at the time of exit.

New-age startups are disruptors and a necessary tool for global innovation and progress which disrupt set processes and industries to add value. They transcend traditional indicators of success like revenues, profitability, asset size, etc. Accordingly, it is no mean feat to uncover the actual value of a startup. There is no shortage of new innovative methods used to value startups based on their value drivers. However, the valuation of a startup is much more than the application of ways – it is about understanding the story of the future trajectory and communicating that narrative using substantial numbers.

Q 9. What are Digital Platforms & What are various types of Digital Platforms?

A. A digital platform is a software based online infrastructure that facilitates interactions and transactions between users. Principally platforms are built to facilitate many to many interactions. A few illustrations based on the kind of services provided are as under:

Category	Descriptions
Marketplace	Multiple buyers are matched to multiple suppliers. **For example:** Booking.com connects guests to hotels, while Uber links travelers to drivers, Amazon connects sellers and buyers through its platform.
Search engine	Multiple people looking for information are matched to multiple sources of information. As a search request triggers the system to actively seek out the desired information, it is also called a search engine. **For example:** Google, Bing, and Baidu
Repository	Multiple suppliers 'deposit' their materials into a type of library, to be retrieved by users at a later moment. **For example:** Spotify, YouTube, GitHub
Digital communication	Multiple users to send messages and/or documents to a variety of other people, or interact in real time via voice as well as video. **For example:** Whatsapp, Microsoft Teams, Telegram, Slack etc are internet-based communication platforms.
Digital community	On a digital community platform, people who want to remain virtually connected for a longer period of time can find each other and interact. **For example:** Facebook lets one build one's own network of friends, LinkedIn plays a similar role in the business context.
Payments Platform	On a digital payment platform, matching takes place between those owing money and those wanting to be paid. **For example:** Paytm, GPay, are directed at online consumers and facilities payments across vendors.

Q10. How are Digital Platforms Valued?

A. Income Approach

Valuation methods under the Income Approach lay emphasis on projected financial performance which takes into consideration future revenues and costs using company specific revenue and cost drivers and applicable capital expenditure and working capital cycles.

Steps in Backward working required under the Top-Down Approach

Step 1: Analysis of the total potential market for the Platform on a global or domestic level - referred to as Total Addressable Market ('TAM').

Step 2: Estimate the share in this target market, the company estimates to gain in the future, and the time to reach such share - referred to as Serviceable Addressable Market ('SAM') and Serviceable Obtainable Market ('SOM').

Step 3: Estimate its business plan to accomplish its objectives and the strategy for estimating the way the company will gain market share and increase its revenues while optimizing cash or utilizing cash. The financial forecast should take into consideration the types and features of the business model of the platform.

A digital repository which allows streaming of content may earn revenue based on its subscribers while a payments solution platform may earn revenues based on the number of transactions done using the same. The direct operating costs for these types of platforms shall also be unique to each type of platform or platform business.

In the digital platform's businesses, in order to attain greater market share and popularize the platform among end users, companies have to resort to penetrative strategies by burning cash on books at lower margins. The cash requirement is expected to reduce with time as profit margins become stable and the rate of reinvestment reduces.

The Top-Down Approach can be ambitious for a company at a nascent stage as estimating market size and market share poses its practical challenges.

Bottom-Up Approach: In this the Platform can estimate its earnings based on the limited resources it has. A young Platform can estimate its revenue and costs given its financial constraints. The promoters of such platform can deploy appropriate strategies to target high margin sales and cost cutting methodologies to generate more cash for the Platform. This is more in line to making efficient capital budgeting decision, which will ultimately help to forecast earnings and cash flows.

Under both the scenarios i.e Top-Down or Bottom-up, the value of a digital platform will depend on the quality of the financial forecasts. In the digital platform the growth and survival of an entity is highly dependent on its promoters, investors and stakeholders creating products or services that fill or meet a need in the market, and their capability to execute their products and services efficiently by adapting to unexpected circumstances.

Discounting Rate: The discounting rate used should be based upon the type of cash flows being discounted. The free cash flow to the Firm ('FCFF') should be discounted using the Weighted Average Cost of Capital ('WACC') and the free cash flow to Equity should be discounted at the Cost of Equity Capital ('Ke'). CAPM can be used to calculate the Cost of Equity which is calculated as under: $R = rf + \beta\ (rm - rf)$; R = expected rate of return rf = risk free rate of return β = Beta value of the stock rm = market rate of return

Specific considerations

(a) Beta measures the sensitivity of a stock or company to the market. Practically, the beta of a company is estimated based on the sensitivity of the share price of the stock, its comparable or the industry with respect to the market. Due to the unique nature of each digital platform and scarcity of listed traded comparable, estimating beta becomes challenging. One might need to draw a comparison between the general diversified sector, the industry driving the revenue or international comparable.

(b) The survival of such a digital platform is highly dependent upon the quality of management, ability to adapt to change quickly, and foresee opportunity.

Thus, there are certain specific risks of a digital platform that cannot be estimated using CAPM with regard to only the industry or general sector beta. A Company Specific Risk Premium ('CSRP') or Alpha needs to be estimated and added to determine the appropriate cost of equity used to discount the estimated cash flows. The CSRP for nascent companies would be higher than mature digital platforms with adequately large operations having a large customer base.

(B) Market Approach

The Market Approach values a company by drawing a comparison from similar valued companies based on multiples like profit to earnings ('P/E') ratio, Enterprise Value to Earnings before Interest, Tax, Depreciation and Amortization ('EV/EBITDA') ratio, Price to Book Value ratio, Price to Revenue/Sales Ratio. The selection of comparable to draw such comparison is vital and parameters like the market capitalization, revenue, Profit margins, capital structure etc. are used while making the selection.

However, in case of digital platform, such comparison becomes difficult due to the following reasons:

- The listed comparable are scarce and even absent for many platforms.
- The underlying value specifically Profit and EBITDA may be negative for certain digital platforms.
- Such digital platforms are capital-lite making their Book Value very low.

Due to the above complexity, the application of Market Approach for digital platform, lays emphasis on revenue of a digital platform. Comparison is sought on the manner the platform envisages its primary driver of revenue.

Category of Digital Platform	**Drivers of Revenue**
Marketplace (Matching Supply and Demand)	No of Booking made, No. of registered users, volume of Transactions
Payment (Matching Billing and Payments)	No of active subscriber, No. of merchants registered on the platform, Compatibility and speed of the operating system, Security, Ease of Use
Community (Network of Contacts)	Number of users, subscription fees, platform for professionals
Communication (Network for Messaging)	Number of users, sponsored links, advertising revenue
Repository (Supply Library)	Number of readers and contributors, authenticity of data, duration of use, quality and variety of data
Search (Machine Queries and Information)	Number of users, relevant search results, time taken per search

Two Search engines can be compared based on their total number of active users and the average time taken to show relevant search results. The one with more relevant search results in shorter time, shall be valued at a premium and can be used as a base for comparison.

For a repository platform that seeks to draw subscription or advertising revenue based on the number of times the content is viewed on its platform and the duration of such visit, comparison can be drawn based upon the number of users, the average number of views per user and the average revenue per user.

Example: A Search engine platform Company valued at 100.00 Cr with a subscriber base of 50 million users and content of 10000 hours can be used to draw a comparison while valuing a similar platform with fewer users however having same or similar revenue parameters.

(C) Cost Approach

The Cost Approach estimates the value based on the total cost incurred to build the same platform or similar platform with the same utility. Since, the asset behind the digital platform is the code written, the numbers of hours spent to write the code by the developers is the primary cost of the platform. However, this approach may not be most appropriate as it fails to consider the revenue generating capacity of the digital platform which may create significantly higher value for the shareholders of the company versus the cost spent on developing the platform.

The valuation of digital platform can be tricky based on the peculiarities as mentioned above. However, the fundamentals of valuation remain the same. The understanding of the business, the revenue model, the quality of management, and the risk-reward parameters determine the value of the digital platform.

Q11. How does one Value Professional/ Consultancy Firms?

The professional services firms can be defined as firms that provide customized, knowledge-based services to clients such as Chartered Accountants, Advocates, Management Consultancy firms etc. Even within industry firms vary significantly due to the different nature of services each firm provides.

Like any other business valuation understanding the present and projected industry trends plays a significant role in determining an accurate valuation amount but experts generally look at the firm's historical data to compare them with industry Key Performance Indicators (KPIs) and benchmarks. Further, generally valuation experts compare the company against its competitors. The main source of information are Audited Annual Statements and Income Tax Returns etc.

When using the income approach while historical data is important, projected growth (Terminal Value) also impacts the overall value. Although Valuation experts plan for future growth and compare it to the projected trends after conversations with management but there is an inherent risk associated with using future earnings potential, as results may or may not materialize. Hence, this risk should be factored into the overall calculation.

In addition to analysis of financial statements and their comparison to industry standards, normalisation of net income and cash flows is another important aspect. This step allows comparison of firms on equal footing. This step involves adding back of non-cash items and specific items, which might not apply to a new firm. Then these normalized cash flows are applied to the chosen valuation method and used in calculating overall value.

One commonly used method to analyse the extent that a firm meets expectations in comparison to current industry benchmarks and KPIs. Since professional services includes several different types of firms, KPIs can vary greatly and hence it is equally important to look at specific indicators which align with acquirer firm's goals.

To accurately value a professional services firm each piece of information contributes importantly.

Q12. What is ESG?

Environmental, Social, Governance (ESG) is a framework designed to be embedded into an organization's strategy that considers the needs and ways in which to generate value for all organizational stakeholders (such as employees, customers and suppliers and financiers).

Illustrative list of contents included in these three factors are as follows:

Environmental	Social	Governance
Climate change	Employee development	Board Independence
Water	Diversity & inclusion	Board diversity
Waste generation	Community development	Anti-Corruption & Bribery
Emissions	Health & Safety	Tax transparency
Biodiversity	Customer	Ethical conduct

ESG is on the radar of several investors today. Focusing on ESG issues can bring out risk and opportunities for the company's ability for sustainable value creation. The key environmental aspects under consideration are climate change and natural resource scarcity. It covers social issues like diversity and inclusivity, labor practices, health & safety, and cyber security. There is greater emphasis on governance aspect covering topics like board diversity and independence, executive pay, and tax transparency.

Q 13. Summarize key developments in the ESG Space

- Investment pace in ESG funds: ESG funds tapped more than $ 50 billion in 2020 and total assets with ESG focus crossed more than $35 trillion.
- Green bonds have been of significant focus: The green bonds market in 2020 crossed a major milestone of $ 1 trillion dollars.
- Sustainability taxonomy on the rise: Key regions have already defined sustainability taxonomy for e.g. European Union (EU). Several other countries / region are in process of introducing taxonomy related to sustainability / ESG.
- Up next - Convergence of ESG framework: IFRS launched an important work to develop single global reporting standard on ESG.
- SEBI - SEBI (Securities Exchange Board of India) in February 2023 proposed a regulatory framework on ESG disclosures by listed entities.

The ESG performance and linked ratings have begun to play an influencing role for companies going to market to raise funds for future growth. The high ESG focus from investors, lenders and financial institution in the recent times has reached the tipping point and have started to impact the financing options for companies. Companies with high ESG focus stand to get benefits in the form of preferential / lower cost of debt or access to specialized financial products like the Green, Social and Sustainability linked Bonds.

Traditional belief was that ESG was 'good to have' in business ethics, sustainability, diversity, and community. However, with the heightened interests from different stakeholders groups, directors realise that it is now moving into the 'must-to-have' territory. The business case for ESG generally begins with operational efficiency and risk reduction as primary goals and then extends to longer-term operational and organizational resiliency and sustainability. Boards recognize the strong and direct link to build a profitable business with a strong focus on environmental and social considerations. They also know that focus on ESG issues requires robust governance practices which will fortify their company's portfolio as a strong contender with investors and shareholders.

Now question arises how the risks of ESG factors can be incorporated in the Valuation of any business. As mentioned earlier the most popular technique of valuing any business is discounting of Future Cash Flows. Accordingly, the impact of these risks can be incorporated either in discount rate or expected cash flows.

Generally, management and investors are more interested in adjusting discount rate by inclusion of risk premium in the same. Even though this approach is more practical but the impact of ESG factors may not be that much explicit. Hence adjustment of ESG factors in cash flows would be more explicit.

Q14. How can impact of each factor can be incorporated in computation of expected cash flows?

(i) E of ESG: The risk of this factor (Environment) can be incorporated by carrying out 2-degree scenario analysis i.e. if temperature of the plant is increased by 2 degrees. Similarly, adjustment in cash flows can be made by considering carbon points.

(ii) S of ESG: The risk of this factor (Social) can be considered by adjusting the impact of social measures cost on the revenue such as better labour working conditions, CSR, and other welfare measures for the various stakeholders.

(iii) G of ESG: The risk of this factor (Governance) can be considered by adjusting the impact of poor governance on revenue in the form of penalty, fines, taxes etc.

MERGERS AND ACQUISITIONS AND CORPORATE RESTRUCTURING 26Q|0PE

Q1. How Can a Business Unlock Value Through Mergers & Acquisitions and Business Restructuring?

A. Value is unlocked through mergers, acquisitions, and business restructuring because of following reasons:

- Horizontal growth helps to achieve optimum size, enlarge the market share, curb competition and use of unutilised capacity.
- Vertical combination helps to economise costs and eliminate avoidable taxes /duties.
- Diversification of business.
- Mobilising financial resources by utilising the idle funds lying with another company for the expansion of business. (For example, nationalisation of banks provided this opportunity and the erstwhile banking companies merged with industrial companies);
- Merger of an export, investment, or trading company with an industrial company or vice versa with a view to increase cash flow.
- Merging subsidiary company with the holding company with a view to improving cash flow.
- Taking over a 'shell' company which may have the necessary industrial licences etc., but whose promoters do not wish to proceed with the project.
- An amalgamation may also be resorted to for the purpose of nourishing a sick unit in the group and this is normally a merger for keeping up the image of the group.
- The business restructuring helps the company in:
  - Positioning the company to be more competitive,
  - Surviving an adverse economic climate,
  - positioning the company into in an entirely new direction.

STARTUP FINANCE 6Q

Q1. What is a Unicorn?

A Unicorn is a privately held start-up company which has achieved a valuation US$ 1 billion. This term was coined by venture capitalist Aileen Lee, first time in 2013. Unicorn, a mythical animal represents the statistical rarity of successful ventures.

A start-up is referred as a Unicorn if it has following features:

(i) A privately held start-up.

(ii) Valuation of start-up reaches US$ 1 Billion.

(iii) Emphasis is on the rarity of success of such start-up.

(iv) Other common features are new ideas, disruptive innovation, consumer focus, high on technology etc.

However, it is important to note that in case the valuation of any start-up slips below US$ 1 billion it can lose its status of 'Unicorn'. Hence a start-up may be Unicorn at one point of time and may not be at another point of time.

In September 2011, InMobi, an ad-tech startup, became the first Unicorn of India. SoftBank invested US$ 200 million in InMobi valuing the mobile advertising company at over US$ 1 billion, making it India's first unicorn. InMobi was founded in 2007 and took four years to achieve the Unicorn status in 2011 In 2018, Udaan, a B2B e-commerce marketplace, became the fastest growing startup by becoming a Unicorn in just over two years' time.

India has now emerged as the 3rd largest ecosystem for startups globally, after US and China, with over 59,000 DPIIT-recognized startups. As per data available on InvestIndia.gov.in, as of 7th September 2022, India had 107 unicorns with a combined valuation of US$ 340.79 billion. The next milestone for a Unicorn to achieve is to become a Decacorn, i.e., a company which has attained a valuation of more than US$ 10 billion. There should be no doubt that within a few years the Unicorns would be a thing of the past and we would be talking about the Decacorns of India.

Q2. How does Start up India Initiative help the growth of Startups?

The start-ups story of India got a major boost with the launch of Startup India and StandUp India programs in year 2016. It helped in creating widespread awareness in general public about start- ups and gave a boost to the entrepreneurial mindset. By setting up a SIDBI-run Electronic Development Fund (EDF), the Indian Government became a Limited Partner (LP) in a fund for the first time ever. Easy finance options such as Mudra Scheme, tax benefits such as 100% tax holiday under section 80-IAC and exemption from angel taxation also provided the much-needed push to the young Indian start-ups.

In January 2021, the Department for Promotion of Industry and Internal Trade (DPIIT) created the Startup India Seed Fund Scheme (SISFS) with an outlay of INR 945 Crore to provide financial assistance to start-ups for Proof of Concept, prototype development, product trials, market entry, and commercialization. It will support an estimated 3,600 entrepreneurs through 300 incubators in the next 4 years. A start-up, recognized by DPIIT, incorporated not more than 2 years ago at the time of application and having a business idea to develop a product or a service with a market fit, viable commercialization, and scope of scaling, can apply for SISFS. A start-up can get seed fund of as much as INR 50 Lakh under SISFS. The priority sectors for SISFS are social impact, waste management, water management, financial inclusion, education, agriculture, food processing, biotechnology, healthcare, energy, mobility, defence, space, railways, oil and gas, and textiles.

Apart from the support from government, there are quite a few other reasons why India became such a sustainable environment for start-ups to thrive in. Some of the major reasons are:

(i) The Pool of Talent - Our country has a big pool of talent. There are millions of students graduating from colleges and B-schools every year. Many of these students use their knowledge and skills to begin their own ventures, and that has contributed to the startup growth in India. In the past, much of this talent was attracted to only the big companies, but now that is slowly changing.

(ii) Cost Effective Workforce - India is a young country with over 10 million people joining the workforce every year. The workforce is also cost effective. So, compared to some other countries, the cost of setting up and running a business is comparatively lower.

(iii) Increasing use of the Internet - India has the world's second-highest population, and after the introduction of affordable telecom services, the usage of internet has increased significantly. It has even reached the rural areas. India has the second-largest internet user base after China, and companies as well as start-ups are leveraging this easy access to the internet.

(iv) Technology - Technology has made the various processes of business very quick, simple and efficient. There have been major developments in software and hardware systems due to which data storage and recording has become an easy task. Indian startups are now increasingly working in areas of artificial intelligence and blockchain technologies which is adding to the growth of businesses.

(iv) Variety of Funding Options Available - Earlier there were only some very traditional methods available for acquiring funds for a new business model, which included borrowing from the bank or borrowing from family and friends. However, this concept has now changed. There are numerous options and opportunities available. Start-up owners can approach angel investors, venture capitalists, seed funding stage investors, etc. The easing of Foreign Direct Investment norms and opening up of majority of sectors to 100% automatic route has also opened the floodgates for foreign funding in the Indian start-up ecosystem.

Q3. What is the meaning of Succession Planning in Business?

Succession planning is the process of identifying the critical positions within an organization and developing action plans for individuals to assume those positions. A succession plan identifies future need of people with the skills and potential to perform leadership roles. Succession planning is an important priority for family-owned businesses as most of them are managed by a non-family leader even though the ownership lies with the family. Taking a holistic view of current and future goals, this type of preparation ensures that the right people are available for the right jobs today and in the years to come. It can also provide a liquidity event, which enables the transfer of ownership in a going concern to rising employees. Succession planning is a good way for companies to ensure that businesses are fully prepared to promote and advance all employees—not just those who are at the management or executive levels.

Q4. Why is there a need for succession planning?

- Risk mitigation – If existing leader quits, then searches can take six-nine months for suitable candidate to close. Keeping an organization without leader can invite disruption, uncertainty, conflict and endangers future competitiveness.
- Cause removal – If the existing leader is culpable of gross negligence, fraud, wilful misconduct, or material breach while discharging duties and has been barred from undertaking further activities by court, arbitral tribunal, management, stakeholders or any other agency.
- Talent pipeline – Succession planning keep employees motivated and determined as it can help them obtaining more visibility around career paths expected, which would help in retaining the knowledge bank created by company over a period of time and leverage upon the same.
- Conflict Resolution Mechanism – This planning is very helpful in promoting open and transparent communication and settlement of conflicts.
- Aligning – In family-owned business succession planning helps to align with the culture, vision, direction, and values of the business.

Q5. Elaborate on Business succession strategy.

Step 1 – Evaluate key leadership positions: - To evaluate which roles are critical, risk or impact assessment can be performed. Generally, these are such positions which would bring transformation to the entire business or create strategic direction for the organization.

Step 2 – Map competencies required for above positions: - In this step, one needs to identify qualifications, behavioural and technical competencies required to perform the role successfully.

Step 3 – Identify competencies of current workforce: - Identifying what are possible internal options that can deliver results as expected in Step-2, and also if there is a need for training and development of certain skills required. The organization should also place weight on whether a need is there to search outside the organization.

Step 4 – Bridge Leader: - In family-owned business appointment of an outsider as 'bridge leaders' will help to develop the business and prepare young family members for leadership role.

Q6. What are Challenges faced in succession planning specifically w.r.t startups?

In context of Start-up following challenges are faced in implementing Succession Planning.

(1) Founder mindset might be different than the corporate mindset – The way founder's brains are wired is different from the way that a traditional corporate manager thinks, and this puts off seasoned corporate leaders from joining even matured start-ups.

(2) Premature for startups to implement business succession - Certain startups are at early growth stage and too much of processes would lead to growth slow-down and hence they are not in a current stage for implementing business succession planning.

(3) Founders are the face of startups – One cannot imagine a startup without a founder who initiated the idea and executed it and in his/ her absence succession planning can become difficult.