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NISM SERIES VD – MUTUAL FUND – SIF EXAM



NISM VD – MUTUAL FUND – SIF EXAMINATION

SHORT NOTES BY PASS4SURE.IN

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Module 1: Mutual Fund Distributors

Chapter 1: Investment Landscape

When we assign amounts and timelines to our personal life objectives like Marriage, education, etc; we convert these into financial goals.

Steps involved:

1. Identify goal events
2. Assign priorities
3. Assign timeline
4. Assign amount required

The Pool approach: Some people have a pool of savings / investment and meet their financial requirements from the pool. It is possible to manage that way.

Savings v/s Investment: The word “saving” originates from the same root as “safe”. The safety of money is of critical importance here. Whereas, when one invests money, the primary objective typically is to earn profits. The important point to note here is that there is a trade-off between risk and return.

Factors to evaluate before investing:

- Safety
- Liquidity
- Returns
- Convenience
- Ticket Size
- Taxability and Tax deduction

Different Asset Classes:

- Real Estate
- Commodities
- Fixed Income
- Equities

Table 1.1 Investment avenues classified under different asset categories

Equity	Fixed Income
- Blue-chip Companies - Mid-sized companies - Small-sized companies - Unlisted Companies - Foreign Stocks - Equity Mutual Funds - Exchange Traded Funds - Index Funds	- Fixed deposit with a bank - Recurring deposit with a bank - Endowment Policies - Money back Policies - Public Provident Fund - Sukanya Samriddhi Yojana (SSY) - Senior Citizens' Savings Scheme (SCSS) - Post office Monthly Income Scheme - Recurring deposit with a post office - Company fixed deposit - Debentures/bonds - Debt Mutual Funds
Real Estate/Infrastructure	Commodities
- Physical Asset - Residential/ Commercial - Financial Asset - Real Estate Mutual Funds (REMF) - Real Estate Investment Trusts (REIT) - Infrastructure Investment Trust (InvIT)	- Gold - Silver - Gold Funds - Commodity ETFs
Hybrid asset classes	Others
Hybrid Mutual funds or Multi Asset Fund	- Rare coins - Art - Rare stamps

Investment Risks

- **Inflation Risk:** The risk that rising inflation reduces the purchasing power of investment returns over time.
- **Liquidity Risk:** The risk that an investment cannot be bought or sold quickly at its fair value due to limited market liquidity.
- **Credit Risk:** The risk of loss arising from an issuer or counterparty failing to meet its financial obligations.
- **Market & Price Risk:** The risk of losses due to broader market movements, as well as changes in the price or value of individual securities.
- **Interest Rate Risk:** The risk that changes in interest rates adversely affect the value or returns of an investment, particularly fixed-income securities.

Risk Measures and management strategies:

- **Avoid:** One may avoid certain investment products if one does not want to take the respective risk.
- **Take a position to benefit from some event/development:** An investor can also take an investment position in anticipation of some developments in the market
- **Diversify:** This spreads the risk of loss and thus the probability of losing everything can be significantly reduced through diversification.

Behavioral Biases in Decision Making:

- **Availability Heuristic:** The tendency to judge the likelihood or importance of an event based on information that is most readily available or memorable.
- **Confirmation Bias:** The tendency to seek or interpret information in a way that confirms existing beliefs or opinions.
- **Familiarity Bias:** The tendency to prefer investments, companies, or products that are familiar or well-known.
- **Herd Mentality:** The tendency to follow the investment decisions or actions of others rather than making independent judgments.
- **Loss Aversion:** The tendency to experience losses more strongly than equivalent gains, which may lead to reluctance to sell losing investments.
- **Overconfidence:** The tendency to overestimate one's knowledge, skills, or ability to predict investment outcomes.
- **Recency Bias:** The tendency to give greater weight to recent events or performance when making investment decisions.
- **Behavioral Pattern:** The tendency for investors to repeat certain decision-making or investment behaviors based on past experiences, emotions, or habits.
- **Interest of Investors:** The need to consider an investor's objectives, financial circumstances, risk tolerance, investment horizon, and overall interests when making investment decisions.
- **Ethical Standards and Boundaries:** The responsibility to act with integrity, maintain professional standards, avoid conflicts of interest, and ensure that recommendations are in the client's best interests.

Understanding Asset Allocation:

- **Strategic Asset Allocation:** The long-term allocation of investments across different asset classes based on an investor's objectives, risk profile, and investment horizon.
- **Tactical Asset Allocation:** The short- to medium-term adjustment of asset allocation to take advantage of changing market conditions or perceived investment opportunities.

An investor may select any of the asset allocation approaches, however, there may be a need to make modifications in the asset allocations which is called Rebalancing.

Chapter 2: Concept and Role of a Mutual Fund

A mutual fund is a professionally managed investment vehicle. Mutual fund is a vehicle (in the form of a "trust") to mobilize money from investors, to invest in different markets and securities, in line with stated investment objectives.

Investment Objectives	Mutual Fund Category
The scheme intends to provide reasonable income along with high liquidity by investing in only Debt and money market securities with the maturity upto 91 days.	Liquid fund
To generate capital appreciation/income from a portfolio, predominantly invested in equity and equity related instruments	Equity fund
The primary objective of the scheme is to generate long term capital appreciation by investing in a mix of asset class i.e. equity, debt, InvITs and commodities related instruments as permitted by SEBI.	Hybrid fund
The primary objective of the scheme is to support goal-based investing by reducing risk over time through a pre-determined maturity structure and a glide path strategy for asset allocation across asset classes.	Life Cycle Fund

Key Terminologies

- The investment that an investor makes in a scheme is translated into a certain number of Units in the scheme.
- The number of units issued by a scheme multiplied by its face value (Rs. 10) is the capital of the scheme—its Unit Capital
- The fees or commissions paid to various mutual fund constituents come out of the expenses charged to the mutual fund scheme. These are known as recurring expenses.
- The true worth of a unit of the mutual fund scheme is otherwise called Net Asset Value (NAV) of the scheme.
- The sum of all investments made by investors in the mutual fund scheme is the entire mutual fund scheme's size, which is also known as the scheme's Assets Under Management (AUM).
- The process of valuing each security in the investment portfolio of the scheme at its current market value is called Mark to Market (MTM).

Advantages of Mutual Funds for Investors

- **Professional Management:** Mutual funds are managed by professional fund managers who make investment decisions based on research, expertise, and market conditions.
- **Affordable Portfolio Diversification:** Mutual funds allow investors to diversify across multiple securities and asset classes with relatively small investment amounts.
- **Economies of Scale:** Mutual funds pool money from multiple investors, enabling them to benefit from efficiencies and potentially lower transaction costs.
- **Transparency:** Mutual funds provide regular disclosures on portfolio holdings, performance, expenses, and other relevant information.
- **Liquidity:** Open-ended mutual fund units can generally be bought or redeemed on an ongoing basis, subject to applicable terms and conditions.
- **Tax Deferral:** In certain structures, investors may defer the tax liability on gains until the investment is actually redeemed or sold.
- **Tax Benefits:** Certain mutual fund categories or investment options may offer tax benefits subject to prevailing tax laws and applicable conditions.
- **Convenient Options:** Mutual funds offer various investment options, including lump-sum investments, SIPs, systematic withdrawals, and switches between schemes.
- **Investment Comfort:** Mutual funds provide a structured and convenient way to participate in financial markets without requiring investors to manage individual securities themselves.
- **Regulatory Comfort:** Mutual funds operate within a regulated framework, with defined disclosure, governance, and investor-protection requirements.
- **Systematic Approach to Investments:** Features such as SIPs encourage disciplined and regular investing, helping investors follow a structured investment approach.

Limitations of Mutual Fund

- **Lack of Portfolio Customization:** Investors generally have limited ability to customize individual securities or portfolio allocations within a mutual fund scheme.
- **Choice Overload:** The large number of mutual fund schemes and categories available can make it difficult for investors to identify the most suitable option.
- **No Control Over Costs:** Investors have limited control over the expenses charged by the fund, including management fees and other applicable costs.
- **No Guaranteed Returns:** Mutual fund returns are market-linked and are not guaranteed, and investors may experience fluctuations or loss of capital.

Classification of Mutual Funds

- **By the Structure of the Fund:**
 - **Open-ended Funds:** These funds allow investors to purchase and redeem units on an ongoing basis at applicable NAVs, subject to the scheme's terms.
 - **Close-ended Funds:** These funds have a fixed maturity period and generally allow investment only during the initial offer, with units typically listed on a stock exchange.
 - **Interval Funds:** These funds allow investors to purchase or redeem units only during specified intervals or windows as defined by the scheme.
- **By the Management of the Portfolio**
 - **Actively Managed Portfolios:** These funds rely on active research and portfolio management to select securities with the objective of generating returns or outperforming a benchmark.
 - **Passive Funds:** These funds aim to replicate the performance of a specified index or benchmark by investing in its constituent securities.
- **By the Investment Universe:** Mutual funds can be classified based on the types of securities, asset classes, sectors, or markets in which they primarily invest.

Mutual fund scheme categorization and SEBI regulation

A. Equity Schemes (13 Categories)

- **Multi-Cap Fund:** An open-ended equity scheme investing across large-cap, mid-cap, and small-cap stocks, with a minimum 25% allocation to each segment.
- **Large-Cap Fund:** An open-ended equity scheme predominantly investing in large-cap stocks, with a minimum 80% allocation to large-cap companies.
- **Large & Mid-Cap Fund:** An open-ended equity scheme investing in both large-cap and mid-cap stocks, with a minimum 35% allocation to each segment.
- **Mid-Cap Fund:** An open-ended equity scheme predominantly investing in mid-cap stocks, with a minimum 65% allocation to mid-cap companies.
- **Small-Cap Fund:** An open-ended equity scheme predominantly investing in small-cap stocks, with a minimum 65% allocation to small-cap companies.
- **Dividend Yield Fund:** An open-ended equity scheme predominantly investing in dividend-yielding stocks, with a minimum 80% allocation to equity and equity-related instruments.
- **Value Fund:** An open-ended equity scheme following a value investment strategy, with a minimum 80% allocation to equity and equity-related instruments.
- **Contra Fund:** An open-ended equity scheme following a contrarian investment strategy, with a minimum 80% allocation to equity and equity-related instruments.
- **Focused Fund:** An open-ended equity scheme investing in a maximum of 30 stocks, with a minimum 80% allocation to equity and equity-related instruments.
- **Sectoral Fund:** An open-ended equity scheme investing predominantly in a specific sector, with a minimum 80% allocation to equity and equity-related instruments of that sector.
- **Thematic Fund:** An open-ended equity scheme investing predominantly in companies aligned with a specific investment theme, with a minimum 80% allocation to the relevant theme.

- **ELSS – Tax Saver Fund:** An open-ended equity-linked savings scheme with a mandatory three-year lock-in period and applicable tax benefits, with a minimum 80% allocation to equity and equity-related instruments.
- **Flexi-Cap Fund:** An open-ended equity scheme with the flexibility to invest across large-cap, mid-cap, and small-cap stocks, with a minimum 65% allocation to equity and equity-related instruments.

B. Debt Funds (17 Sub-categories)

- **Overnight Fund:** An open-ended debt scheme investing in overnight securities with a maturity of one day.
- **Liquid Fund:** An open-ended debt scheme investing in debt and money market securities with a maturity of up to 91 days.
- **Ultra Short Duration Fund:** An open-ended debt scheme investing in debt and money market instruments with a portfolio Macaulay duration of 3–6 months.
- **Low Duration Fund:** An open-ended debt scheme investing in debt and money market instruments with a portfolio Macaulay duration of 6–12 months.
- **Money Market Fund:** An open-ended debt scheme investing in money market instruments with a maturity of up to one year.
- **Short Duration Fund:** An open-ended debt scheme investing in debt and money market instruments with a portfolio Macaulay duration of 1–3 years.
- **Medium Duration Fund:** An open-ended debt scheme investing in debt and money market instruments with a portfolio Macaulay duration of 3–4 years.
- **Medium to Long Duration Fund:** An open-ended debt scheme investing in debt and money market instruments with a portfolio Macaulay duration of 4–7 years.
- **Long Duration Fund:** An open-ended debt scheme investing in debt and money market instruments with a portfolio Macaulay duration of more than 7 years.
- **Dynamic Bond Fund:** An open-ended debt scheme investing across different durations based on the fund manager's assessment of interest rate and market conditions.
- **Corporate Bond Fund:** An open-ended debt scheme predominantly investing in AA+ and above-rated corporate bonds, with a minimum 80% allocation to such securities.
- **Credit Risk Fund:** An open-ended debt scheme predominantly investing in lower-rated corporate bonds, with a minimum 65% allocation to AA and below-rated corporate bonds, excluding AA+.
- **Banking & PSU Debt Fund:** An open-ended debt scheme predominantly investing in debt instruments issued by banks, PSUs, public financial institutions, and municipal bonds, with a minimum 80% allocation.
- **Gilt Fund:** An open-ended debt scheme investing predominantly in government securities across maturities, with a minimum 80% allocation to G-secs.
- **10-Year Constant Maturity Gilt Fund:** An open-ended debt scheme investing predominantly in government securities with a portfolio Macaulay duration of approximately 10 years and a minimum 80% allocation to G-secs.
- **Floating Rate Fund:** An open-ended debt scheme predominantly investing in floating-rate instruments, including fixed-rate instruments converted to floating-rate exposure through permitted derivatives.
- **Sectoral Debt Fund:** An open-ended debt scheme predominantly investing in debt instruments of a specific sector, such as financial services, energy, infrastructure, housing, or real estate, with a minimum 80% allocation to eligible securities.

C. Hybrid Schemes (7 Sub-Categories)

- **Conservative Hybrid Fund:** An open-ended hybrid scheme investing predominantly in debt, with 75–90% of assets in debt instruments and 10–25% in equity and equity-related instruments.
- **Balanced Hybrid Fund:** An open-ended hybrid scheme investing 40–60% of assets each in equity and debt instruments, with no arbitrage permitted.
- **Aggressive Hybrid Fund:** An open-ended hybrid scheme investing predominantly in equity, with 65–80% of assets in equity and equity-related instruments and 20–35% in debt.
- **Dynamic Asset Allocation / Balanced Advantage Fund:** An open-ended hybrid scheme that dynamically adjusts its allocation between equity and debt based on market conditions and the fund manager's assessment.

- **Multi-Asset Allocation Fund:** An open-ended scheme investing in at least three asset classes, with a minimum allocation of 10% to each asset class.
- **Arbitrage Fund:** An open-ended scheme seeking to generate returns from arbitrage opportunities, with a minimum 65% allocation to equity and equity-related instruments.
- **Equity Savings Fund:** An open-ended scheme investing across equity, arbitrage, and debt, with a minimum 65% allocation to equity and equity-related instruments and a minimum 10% allocation to debt.

D. Life Cycle Funds

Life Cycle Fund: Scheme following glide path strategy-based investing across various asset classes i.e. Equity, Debt, InvITs, ETCs, Gold & Silver ETF. Mutual Fund may launch Life Cycle Funds with a minimum tenure of 5 years and a maximum tenure of 30 years. Such fund may be launched for tenures in multiple of 5 years and a maximum of 6 funds by a Mutual Fund can be active for subscription at any given point in time.

E. Other Schemes (2 Sub-Categories)

- **Index Funds/Exchange Traded Fund:** An open-ended scheme replicating/tracking a specific index. This minimum investment in securities of a particular index (which is being replicated/ tracked) shall be 95 percent of total assets.
- **Fund of Funds (Overseas/Domestic):** An open-ended fund of fund scheme investing in an underlying fund. The minimum investment in the underlying fund shall be 95 percent of total assets.

Other Investment Options

- **Fixed Maturity Plans (FMPs):** Close-ended debt funds that invest in securities with maturities aligned to the scheme's fixed maturity date, offering greater visibility of the investment horizon.
- **Target Maturity Funds (TMFs):** Debt funds with a defined maturity date that typically invest in bonds with maturities aligned to the fund's target date, helping reduce reinvestment risk.
- **Capital Protection Oriented Funds:** Close-ended hybrid funds structured to protect the principal at maturity through investments in debt instruments, while using the remaining portion for potential equity-linked returns.
- **Infrastructure Debt Funds (IDFs):** Funds that primarily invest in debt securities or loans of infrastructure companies and projects, providing investors exposure to infrastructure-related debt.
- **Real Estate Mutual Funds (REMFs):** Close-ended funds that invest predominantly in real estate assets and related permissible investments, with units typically listed on stock exchanges.
- **ESG Funds:** Funds that incorporate environmental, social, and governance considerations into investment decisions through strategies such as exclusion, integration, positive screening, impact investing, or transition investing.
- **REITs:** SEBI-registered trusts that invest in income-generating real estate assets and allow investors to participate in commercial real estate through listed units.
- **InvITs:** SEBI-registered trusts that invest in infrastructure assets and provide investors with exposure to infrastructure projects through listed units.
- **Smart Beta Funds:** Passive investment strategies that use alternative index construction factors, such as equal weighting or quality, value, or low-volatility parameters, instead of relying solely on market capitalisation.
- **Quant Funds:** Funds that use quantitative models, data analysis, and predefined rules to identify securities and make portfolio investment decisions with limited reliance on human discretion.
- **International REIT Funds:** Funds that invest in REITs or real estate-related securities in international markets, providing investors with exposure to overseas real estate markets.

Specialized Investment Fund

The investment product landscape ranges from Mutual Funds (MFs) to Portfolio Management Services (PMS) and Alternative Investment Funds (AIFs), with increasing flexibility and customization across these categories. To bridge

the flexibility gap between MFs and PMS, SEBI has introduced Specialized Investment Funds (SIFs), requiring a minimum investment of ₹10 lakh across all SIF strategies of the same AMC.

A. Equity Oriented Schemes

- **Equity Long-Short Fund:** An equity-oriented SIF investing at least 80% in equity and equity-related instruments, with unhedged short exposure through derivatives capped at 25%.
- **Equity Ex-Top 100 Long-Short Fund:** An equity-oriented SIF investing at least 65% in stocks outside the top 100 by market capitalisation, with unhedged short exposure capped at 25%.
- **Sector Rotation Long-Short Fund:** An equity-oriented SIF taking long and short positions at the sector level, investing at least 80% in equity and limiting exposure to a maximum of four sectors, with short exposure capped at 25%.

B. Debt Oriented Schemes

- **Debt Long-Short Fund:** An interval-based debt SIF investing across durations and using exchange-traded debt derivatives to take limited unhedged short positions.
- **Sectoral Debt Long-Short Fund:** An interval-based debt SIF investing across at least two sectors, with maximum exposure to any one sector capped at 75% and unhedged short exposure capped at 25%.

C. Hybrid Schemes

- **Active Asset Allocator Long-Short Fund:** An interval-based hybrid SIF that dynamically allocates across equity, debt, derivatives, commodities, REITs and InvITs, with short exposure in equity and debt derivatives capped at 25%.
- **Hybrid Long-Short Fund:** An interval-based hybrid SIF investing at least 25% each in equity and debt, while allowing unhedged short exposure in equity and debt derivatives capped at 25%.

Chapter 3: Legal Structure of Mutual Funds in India

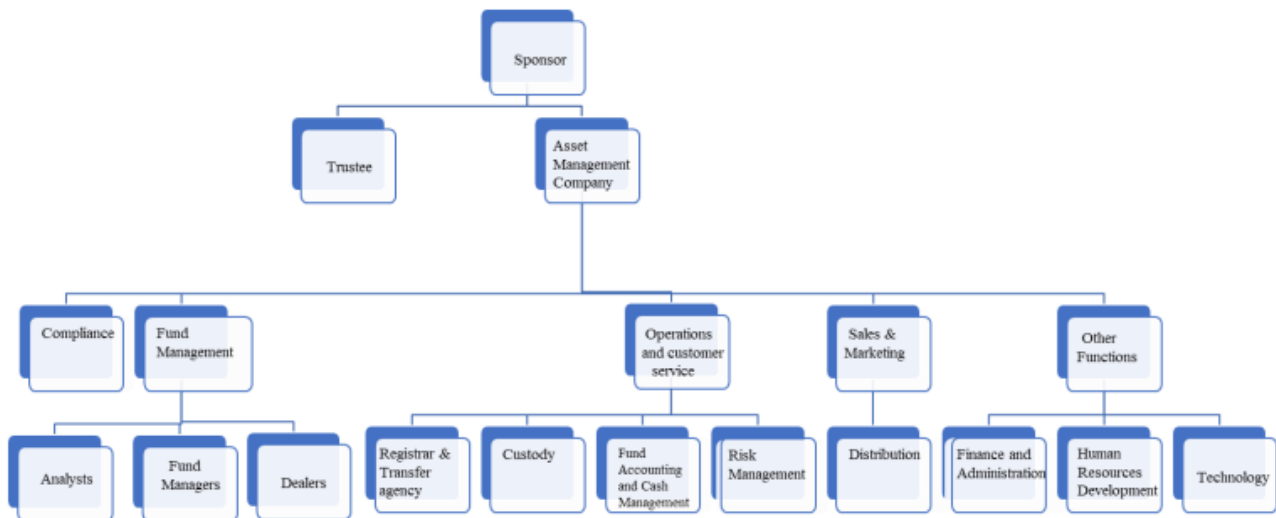
Key features of a mutual fund that flows from the definition above are:

- It is established as a trust
- It raises money through the sale of units to the public or a section of the public
- The units are sold under one or more schemes
- The schemes invest in securities (including money market instruments) or gold or gold-related instruments or silver or silver related instruments or real estate assets.

Key Constituents of a Mutual Fund

- **Sponsor:** The application to SEBI for registration of a mutual fund is made by the sponsor(s). Thereafter, the sponsor invests in the capital of the AMC. Sponsors are the main people behind the mutual fund operation.
- **The Board of Directors of the Trustees Company (Trustees):** They have a critical role in ensuring that the mutual fund complies with all the regulations and protects the interests of the unitholders.
- **Trust:** A mutual fund is constituted in the form of a trust and the instrument of trust is in the form of a deed, duly registered under the provisions of the Indian Registration Act, 1908 (16 of 1908), executed by the sponsor in favor of the trustees named in such an instrument.
- **Asset Management Company:** Day to day operations of a mutual fund is handled by the AMC. The sponsor trustees shall appoint the AMC with the approval of SEBI.
- **Custodian:** The custodian has custody of the assets of the fund. As part of this role, the custodian needs to accept and give delivery of securities for the purchase and sale transactions of the various schemes of the fund. Thus, the custodian settles all the transactions on behalf of the mutual fund schemes.

Compliance Function: Compliance Officer needs to ensure all the legal compliances. In the scheme documents of new issues, the Compliance Officer signs a due-diligence certificate to the effect that all regulations have been complied with, and that all the intermediaries mentioned in the scheme related documents have the requisite statutory registrations and approvals



Fund management: Fund management is the most critical function in an Asset Management Company. It is at the core of the value proposition offered by the firm. The main function of this team is to invest the investors' money in line with the stated objective of the scheme and to manage the same effectively

Operations and Customer Team

Sales and Marketing Team.

Role and Support function of Service Providers

- **Fund Accountant:** Responsible for maintaining the fund's books and records, calculating expenses, and supporting accurate NAV computation and financial reporting.
- **Registrars and Transfer Agents:** Maintain investor records and process transactions such as subscriptions, redemptions, switches, and updates to investor information.
- **Auditors:** Independently examine the fund's financial statements and processes to ensure accuracy, compliance, and proper reporting.
- **Distributors:** Facilitate the distribution and sale of mutual fund schemes to investors and provide related investment services.
- **Collecting Bankers/Payment Aggregators:** Facilitate the collection and processing of investor payments for mutual fund transactions through approved banking and payment channels.
- **KYC Registration Agencies:** Maintain and facilitate access to investors' KYC records, enabling standardized KYC verification across financial intermediaries.
- **Valuation Agencies:** Provide independent valuation of securities and other investments held by the fund for accurate and fair NAV calculation.
- **Credit Rating Agencies:** Assess and provide credit ratings for debt securities, helping investors and fund managers evaluate the creditworthiness of issuers.
- **Depository and Depository Participants:** Maintain securities in electronic form and facilitate the settlement, transfer, and safekeeping of securities.
- **Stock Exchanges and Transaction Platforms:** Provide regulated platforms through which mutual fund units and related transactions can be facilitated.
- **Execution Only Platforms:** Provide digital platforms that enable investors to execute mutual fund transactions without receiving investment advice or recommendations.

Chapter 4: Legal & Regulator Framework

SEBI regulates India's securities markets and entities such as mutual funds, depositories, custodians, RTAs, and credit rating agencies, with the primary objective of protecting investors and promoting orderly market development.

Its regulatory framework focuses on adequate disclosures, efficient transactions, and reasonable transaction costs, while also addressing risks such as insider trading, market manipulation, excessive risk-taking, and inadequate collateral to maintain investor confidence and support the flow of savings into capital markets.

Here's a compact, easy-to-understand table:

Regulatory Category	Key Areas Covered
Scheme-Related Documents	Content, format, disclosures, frequency, and TRI-based performance benchmarking.
Registration	Registration and governance of sponsors, trustees, and AMCs.
Conversion & Consolidation	Scheme mergers, consolidation, categorisation, and rationalisation.
New Products	Regulatory framework for introducing new mutual fund products.
Risk Management	Exposure limits, diversification, operational risks, credit events, and liquidity risks.
Disclosures & Reporting	Periodic and standardised portfolio, performance, and investor disclosures.
Governance	Roles of trustees, independent directors, committees, audits, and oversight mechanisms.
Secondary Market Activities	Mutual fund transactions across equity, debt, G-secs, and derivatives.
NAV	NAV calculation, disclosure, cut-off timings, time-stamping, and transaction pricing.
Valuation	Fair and consistent valuation of securities held by mutual funds.
Loads, Fees & Expenses	Limits and disclosures relating to loads, fees, expenses, and commissions.
IDCW	Calculation of distributable surplus and distribution of IDCW to investors.
Investment by Schemes	Investment restrictions, exposure limits, and portfolio requirements.
Advertisements	Regulation of advertisements, disclaimers, risk factors, and investor communications.
Investor Rights & Obligations	Account statements, redemption payouts, investor services, and related rights.
Intermediary Certification & Registration	Certification, registration, and continuing education requirements for intermediaries.
Transactions in Mutual Fund Units	Exchange transactions, KYC, documentation, and record-keeping requirements.
Corporate Debt Market Development Fund	Backstop facility to support corporate debt market liquidity during periods of stress.
Execution Only Platforms	Regulation of transaction-only platforms, including onboarding, technology, fees, and grievance redressal.
Miscellaneous	Other regulatory matters not covered under the specified categories.

Mutual Funds Regulations

Investment Restrictions for Mutual Fund Schemes: SEBI prescribes investment limits, diversification norms, and permitted investment avenues to manage risks and protect investors, since mutual fund risks and returns are borne by unitholders. Schemes must comply with limits on securities, debt instruments, derivatives, short selling, inter-scheme investments, and other specified investments, with transactions generally settled in dematerialised form. Fund of Funds and SIFs are subject to specific investment restrictions, while unutilised funds may be placed in short-term bank deposits as permitted by SEBI.

SEBI Advertisement Code: Mutual fund advertisements must be accurate, fair, clear, concise, and consistent with scheme documents, without misleading claims, exaggerated statements, or unfair comparisons. Advertisements must carry the prescribed risk warning, while IDCW advertisements must disclose relevant payout, NAV, and impact-on-NAV information.

Performance Disclosure: Schemes older than 3 years must disclose CAGR for 1, 3, 5 years and since inception, along with ₹10,000 point-to-point returns and benchmark performance. Schemes under 6 months cannot advertise past performance. Advertisements must specify the plan type, disclose fund manager changes, and provide relevant performance data for other schemes managed by the same fund manager.

Celebrity Endorsements: Celebrity endorsements are permitted only for industry-level mutual fund awareness and cannot promote a specific AMC or scheme. Prior SEBI approval is required.

SIF Branding & Advertising: SIFs must have a distinct brand name and logo separate from the regular mutual fund business. They must follow mutual fund advertising guidelines and maintain a separate website or dedicated webpage.

SEBI Guidelines on Unauthenticated News: Market intermediaries must establish internal controls to prevent employees from circulating rumours or unverified market information without proper verification. Access to blogs, chat forums, and messaging platforms should be restricted or monitored, with relevant communication records maintained as required. Market-related information received by employees should be circulated only after review and approval by the Compliance Officer, with violations subject to regulatory action.

Investor's Rights and Obligations

- **Right to Beneficial Ownership:** Unit-holders have a proportionate beneficial ownership in the assets of the scheme and can hold units in physical or dematerialised form.
- **Right to Change the Distributor:** Investors can change their distributor or switch to direct investing through a written request, without requiring an NOC from the existing distributor.
- **Right to Inspect Documents:** Unit-holders can inspect key documents relating to the mutual fund, AMC, trustees, custodians, and other service providers.
- **Right to Appoint Nominees:** Investors can appoint up to 10 nominees and specify the percentage of units to be distributed among them.
- **Right to Pledge Mutual Fund Units:** Investors can pledge their mutual fund units as security against loans or other financial obligations.
- **Right to Grievance Redressal:** Investors have access to a formal grievance redressal mechanism, with AMCs required to disclose complaint-related information and resolution status.
- **Rights on Change in Fundamental Attributes:** If a scheme's fundamental attributes are changed, investors must be informed and given at least 30 days to exit at the prevailing NAV without an exit load.
- **Right to Terminate AMC Appointment:** 75% of unitholders by value can terminate the AMC's appointment or pass a resolution to wind up the scheme, subject to applicable regulations.
- **Right to Take Action Against Trustees:** Investors can take legal action against trustees if they believe the trustees have failed to fulfil their fiduciary obligations.
- **Right to Unclaimed Amounts:** Investors can claim unclaimed amounts; claims within 3 years are generally paid based on the prevailing NAV, while claims after 3 years are based on the NAV at the end of the third year.
- **Right to Information and Transparency:** Investors are entitled to account statements, portfolio disclosures, and other periodic information, including prescribed disclosures of scheme transactions.
- **Right to Proceeds from Illiquid Securities:** If previously unrecoverable securities generate substantial proceeds within the prescribed period, the recovered amount may be distributed to the affected investors; otherwise, it may be transferred to the Investor Education Fund.

Due Diligence by AMCs: AMCs are required to conduct due diligence on mutual fund distributors to ensure compliance with regulatory and industry standards. AMFI may facilitate a common due diligence process to avoid duplication.

Investor Grievance Redressal: Investors should first approach the AMC's investor service centre, and unresolved complaints can be escalated to SEBI. AMCs are required to resolve grievances within 21 calendar days.

SEBI SCORES: SCORES is SEBI's online grievance redressal platform through which investors can lodge, track, and monitor complaints against regulated entities.

Cyber Security & Cyber Resilience: SEBI's Cyber Security and Cyber Resilience Framework (CSCRF) establishes standards for managing cyber risks and reporting incidents, based on five objectives: Anticipate, Withstand, Contain, Recover, and Evolve.

AMFI Code of Ethics (ACE): The AMFI Code of Ethics sets higher ethical and professional standards for AMCs and trustees, supplementing the regulatory requirements prescribed by SEBI.

AMFI Code of Conduct for Intermediaries: AMFI's code sets professional and ethical standards for mutual fund distributors and intermediaries. Violations can lead to warnings, cancellation of AMFI registration, and communication to all AMCs, with a right of appeal.

Chapter 5: Scheme Related Information

There are primarily two important documents for understanding about the mutual fund scheme:

- Scheme Information Document (SID), which has details of the particular scheme
- Statement of Additional Information (SAI), which has statutory information about the mutual fund or AMC, that is offering the scheme.

Scheme Information Document (SID)

The SID is the primary document containing key information about a mutual fund scheme, including its objectives, investment strategy, risks, asset allocation, fees, and investor rights. It is essential for investors to assess whether the scheme is suitable for their needs.

The SID typically covers:

Area	Key Information
Scheme Details	Scheme type, structure, NFO dates, AMC, trustees, and benchmark.
Investment Objective	The scheme's primary and secondary investment objectives.
Asset Allocation	Target allocation across equity, debt, and other asset classes.
Investment Strategy	Approach to security selection, portfolio construction, rebalancing, and selling.
Risk Factors	General and scheme-specific risks, including market, credit, liquidity, interest-rate, and other relevant risks.
Investment Restrictions	Regulatory limits and permitted investment instruments.
Fund Management	Details of the fund managers and investment management structure.
Fees & Expenses	Applicable fees, expenses, and other costs.
Performance	Historical performance and relevant benchmark information.
Investor Information	Eligible investors, unit-holder rights, and other scheme-related information.

Using the SID for Suitability: Investors should assess the scheme's risk, return potential, investment horizon, asset allocation, and investment strategy against their own financial objectives and risk profile. The Risk-o-meter and scheme suitability statement on the SID provide additional guidance.

Investing & Transacting in Mutual Funds:

Area	Key Information
Buying Units	Open-ended schemes can be purchased during the NFO and ongoing offer periods, while close-ended and interval schemes follow their specified purchase windows.
Applying for Units	The SAI and SID provide details on eligibility, application process, KYC, PAN, bank details, payment modes, cut-off timings, and transaction facilities.
Purchase & Redemption Price	Units are purchased or redeemed at the applicable NAV, based on the scheme type, transaction value, and applicable cut-off time.
Load Structure	Details of entry/exit loads and their impact on the amount received on redemption.

Investment Limits	Specifies minimum purchase, minimum balance, and minimum redemption amounts applicable to the scheme.
Plans & Options	Details of Regular and Direct Plans and available options such as Growth and IDCW.
Modes of Transaction	Investors can transact through AMC's, distributors, online platforms, electronic modes, stock exchanges, and other permitted channels.
Liquidity & Redemption	Provides details on redemption timelines, applicable NAV, cut-off timings, redemption process, and payment modes.
Fees & Expenses	Discloses scheme expenses, fees, loads, and transaction charges that may affect investor returns.
Special Facilities	Covers facilities such as SIPs, STPs, switches, triggers, and other systematic investment or withdrawal options.
Investor Information	Provides account statements and periodic information on portfolio, NAV, performance, and benchmark performance.
NAV Calculation	Explains the methodology used to calculate the scheme's NAV per unit.
Tax Implications	Provides an overview of the applicable tax treatment for investments and returns, subject to prevailing tax laws.
Fundamental Attributes	Covers the core features of the scheme, including its investment objective, investment pattern, and other fundamental characteristics.

Statement of Additional Information (SAI): It provides key information about the mutual fund, including its sponsors, AMC, trustees and service providers, along with their roles and experience. It explains how to apply, investor rights, investment valuation norms, tax and legal provisions, and the process for registering and resolving investor grievances.

Key Information Memorandum

KIM is a concise summary of the key information contained in the SID and SAI, helping investors assess the suitability of a mutual fund scheme. It is mandatorily provided along with every mutual fund application form for easy access to essential scheme information.

Other Mandatory information/disclosure

- **Daily NAV:** NAV is disclosed on every business day on the AMC and AMFI websites; Liquid and Overnight Funds also disclose NAVs on Sundays and holidays.
- **Total Expense Ratio (TER):** TER is disclosed daily as it directly impacts the scheme's NAV and investor returns; changes in the base expense ratio must be communicated to investors in advance.
- **Scheme Performance Dashboard:** AMC's maintain a performance dashboard showing scheme performance across different investment periods and update it regularly.
- **Risk-o-meter:** A pictorial tool showing the level of risk associated with a mutual fund scheme, helping investors assess the risk to their principal.
- **Risk-Band for SIFs:** SIFs use a five-level Risk-Band from lowest to highest risk, which is reviewed monthly and disclosed to investors.
- **Portfolio Disclosure:** Mutual funds disclose their scheme portfolios, including securities, ISINs and market values, at prescribed intervals on AMC and AMFI websites.
- **Financial Results:** Unaudited half-yearly financial results are published on the AMC website, with investors informed about their availability.
- **Annual Reports:** Annual reports or abridged summaries are made available on AMC and AMFI websites and communicated to investors within the prescribed period.
- **Change in Control of AMC:** Any change in control of an AMC requires appropriate communication and disclosures to investors in accordance with SEBI requirements.

Non- Mandatory information/disclosure

- **Fund Factsheet:** A monthly information document voluntarily published by mutual funds as an industry best practice. It provides key details such as AUM, NAV, benchmark, performance, portfolio allocation, risk measures, expenses, and available investment options.
- **Scheme Performance:** Factsheets present the scheme's performance across different periods along with benchmark returns and may also include SIP returns.
- **Portfolio Disclosure:** Factsheets provide details of sector-wise and security-wise allocation, with some fund houses disclosing only the top holdings.
- **Risk & Portfolio Metrics:** Equity factsheets may include PE, Beta, Standard Deviation and Sharpe Ratio, while debt fund factsheets typically include credit rating, average maturity and duration.
- **Investment Details:** Factsheets provide information on minimum investment, plans and options, loads, expenses and systematic investment facilities.

Chapter 6: Fund Distribution and Channel Management Practices

A mutual fund distributor helps investors build an appropriate portfolio to achieve their financial goals. The distributor assesses the investor's needs, financial resources, limitations, risk profile and goals to determine suitable asset allocation. The distributor then identifies mutual fund schemes that align with the investor's requirements. The fund manager, on the other hand, analyses market, economic and company-specific factors and manages the scheme's portfolio. Thus, the distributor focuses on the investor, while the fund manager focuses on the market and portfolio management.

Kinds of Mutual Fund Distributors:

- Individual Distributors:** Individuals who directly distribute mutual fund products to investors, typically operating independently and often building their business over time.
- Non-Individual Distributors:** Firms such as partnerships, national/regional distributors, NBFCs, banks and stockbrokers that distribute mutual funds through employees or sub-agents.
 - **Banks:** Banks distribute mutual funds primarily to their existing customers through retail, wealth management, priority and private banking channels.
 - **NBFCs & Stockbrokers:** These entities distribute mutual funds through their own employees or appointed sub-agents, often serving both retail and affluent clients.
 - **National & Regional Distributors:** Distribution firms that operate across multiple locations nationally or focus on specific geographic regions.
 - **Online Distributors / EOPs:** Digital platforms that enable investors to purchase mutual funds online without relying on traditional physical distribution channels.

Kinds of Mutual Fund Distributors:

- **Online Channel Partners:** Distributors use their own websites and digital platforms to enable investors to purchase and transact in mutual funds conveniently without physical paperwork.
- **Stock Exchange Platforms:** NSE and BSE provide platforms for buying, redeeming and transacting in mutual fund units, including SIPs, STPs and SWPs.
- **MF Utilities (MFU):** A transaction-aggregating platform that connects investors, distributors, AMCs and RTAs, allowing investors to manage investments across multiple mutual funds through a single platform.
- **MFCentral:** A unified platform by CAMS and KFinTech that provides a consolidated view of mutual fund holdings and enables service requests and transactions across AMCs.
- **Distributor Apps:** Mobile and computer-based applications offered by distributors enable investors to conveniently purchase, redeem, switch and manage mutual fund investments digitally.
- **AMC Platforms:** AMCs provide their own websites, mobile apps and channels such as SMS or WhatsApp for investors to transact directly with the mutual fund.

- **New-Age Investment Platforms:** Technology-driven platforms such as Groww, Kuvera, Paytm Money and Coin offer simple, low-cost digital access to mutual funds, including direct plans.

Requirements to Become a Mutual Fund Distributor (MFD)

- **NISM Certification:** The individual must pass the NISM Series V-A: Mutual Fund Distributors Certification Examination, as mandated by SEBI.
- **KYD Compliance:** The distributor must complete the Know Your Distributor (KYD) process to verify their identity and registration details.
- **AMFI Registration (ARN):** After completing certification and KYD, the distributor must register with AMFI and obtain an AMFI Registration Number (ARN). The minimum age for obtaining an ARN is 18 years.
- **AMC Empanelment:** An MFD must be empanelled with the respective AMC(s) to distribute their mutual fund schemes and receive commissions.
- **Institutional Distributors:** Institutions must register with AMFI, while their employees involved in distribution must obtain NISM certification and an Employee Unique Identification Number (EUIIN).
- **SIF Distribution:** Existing mutual fund distributors may also distribute SIF products, subject to meeting any additional eligibility criteria prescribed by SEBI.

Revenue for a mutual fund distributor

The mutual fund distributor earns revenue in the form of commission income for the distribution of the mutual fund products/schemes in the manner specified by SEBI from time to time. Trail commission is calculated as a percentage of the net assets attributable to the Units sold by the distributor. The commission payable is calculated on the daily balances and paid out periodically to the distributor as per the agreement entered into with AMC.

With a view to promoting mutual funds, SEBI has allowed mutual funds to charge additional expenses, which can be used for distribution related expenses, including distributor commission. The new investments / inflows eligible for the additional commission are: a) New individual investors (new PAN) from B-30 cities, at the mutual fund industry level; b) New women individual investors (new PAN) from both Top 30 and B-30 cities.

The Asset Management Companies (AMCs) were allowed to pay transaction charges for subscriptions worth more than Rs. 10,000 to the mutual fund distributors. However, as per SEBI's circular issued in August 2025, this transaction charges framework has been withdrawn

Commission Disclosure mandated by SEBI

SEBI has mandated Mutual Funds/AMCs to disclose on their respective websites the total commission and expenses paid to distributors who satisfy one or more of the given conditions with respect to non-institutional (retail and HNI) investors.

Due Diligence Process by AMCs for Distributors of Mutual Funds

AMCs must conduct due diligence on large distributors meeting specified thresholds based on locations, AUM or commissions. The review assesses their business experience, regulatory record, associates and internal controls, including separation of suitability and scheme evaluation from sales.

Difference between Distributors and Investment Advisors

- **Mutual Fund Distributor (MFD):** Primarily distributes mutual funds; any advice provided must be incidental to distribution. An MFD cannot present themselves as an investment advisor.
- **Investment Advisor (IA):** Provides investment advice for a fee and cannot simultaneously earn distribution commissions for the same advisory activity.

- **Advisory transactions:** Products must be appropriate for the investor's risk profile and suitability.
- **Execution-only transactions:** If a distributor believes a transaction is unsuitable, the investor must be informed in writing and acknowledge proceeding despite the warning.
- **Conflict of interest:** Distributors must disclose conflicts when selling products of their own group/associates.
- **Key compliance areas:** Product suitability, customer risk profiling, transaction monitoring, employee training, grievance handling and internal/external audits.

Change of Distributor

- **Investor's right:** Investors can change their distributor or opt for direct investment through a written request, without requiring an NOC from the existing distributor.
- **Commission:** Normally, no trail commission is paid to either the old or new distributor after a distributor-code change. The new distributor may receive trail commission after a 12-month cooling-off period.
- **Distributor protection:** Distributor-code changes are permitted only in specified cases such as change in legal status, merger/acquisition, family transfer or transfer of business.
- **AUM transfer:** Transfer must generally involve the entire AUM and be made to a valid, KYD-compliant ARN holder; the old ARN must be surrendered.
- **Objective:** The rules protect investors' freedom to change distributors while preventing distributors from improperly inducing clients to switch.

Chapter 7: Net Asset Value, Total Expense Ratio and Pricing of Units

In order to ensure fair treatment to all investors, SEBI has laid down certain fair valuation principles:

Principle	Summary
1. Fair Value	Investments must be valued fairly, in good faith, and at their realizable value.
2. Valuation Methodology	AMC Board-approved methodologies must be established for each type of security before investment.
3. Consistency	Assets must be valued consistently, with procedures for exceptional situations where market prices are unreliable.
4. Periodic Review	Valuation policies must be reviewed regularly, at least annually, including by an independent auditor.
5. Conflict of Interest	Valuation policies must address and mitigate potential conflicts of interest.
6. Transparency	Valuation policies, methodologies and their impact must be appropriately disclosed to investors.
7. AMC Responsibility	The AMC is responsible for ensuring fair valuation and a correct NAV, even if it requires deviation from stated policies.
8. Error Prevention	AMCs must have controls to detect and prevent incorrect valuation of securities.
9. Documentation	Valuation rationale, including for inter-scheme transfers, must be documented and maintained for audit purposes.
10. Debt Valuation	Valuation of debt and money-market securities should consider available trades of the same or similar securities.

Valuation of Investments

- **Traded Securities:** Valued at the latest closing price on the stock exchange where the security is principally traded.
- **Multiple Exchanges:** AMC selects the appropriate exchange and must document the rationale for its selection or any subsequent change.
- **No Trade on Valuation Day:** The latest available price from another exchange may be used. If no recent trade exists, a price from up to 30 days prior may be considered.

- **Non-Traded Securities:** Securities not traded for 30 days are valued in good faith using Board-approved valuation methodologies, with supporting documentation.
- **Non-Traded Equity:** Generally valued using earnings capitalisation and/or NAV, with suitable discounts for lower liquidity.
- **Convertible Securities:** Convertible and non-convertible components are valued separately using the applicable equity and debt valuation methods.
- **Warrants:** Valued based on the underlying share value less the exercise price, with an appropriate discount for the time until exercise and liquidity.
- **Physical Gold & Silver:** Valued using polled spot prices published by recognised stock exchanges, in accordance with SEBI guidelines.

Computation of Net Assets of Mutual Fund Scheme and NAV

Net asset Value = Unit-holders' Funds in the Scheme (Net Assets) ÷ No. of outstanding Units

The process of valuing each security in the investment portfolio of the scheme at its current market value is called 'mark to market'.

Total Expenses in Mutual Fund Scheme

- **Investment and Advisory Fees** are charged to the scheme by the AMC. The details of such fees are fully disclosed in the Scheme Information Document.
- **Recurring Expenses:** Recurring expenses charged to a mutual fund scheme may include distribution and marketing costs, brokerage, registrar and custodian fees, trustee and audit fees, investor communication, insurance, statutory advertisements, listing fees, account statements and other SEBI-approved expenses. The Total Expense Ratio (TER), including investment management and advisory fees, is subject to SEBI-prescribed limits, which vary based on the type of scheme, such as equity-oriented funds, fund-of-funds, index funds and ETFs.
- **Additional Expenses:** Brokerage and transaction costs can be charged up to 0.06% of trade value for cash-market transactions and 0.02% for derivatives. The total expenses charged to investors include the base TER, brokerage, transaction costs and statutory levies. No other charges can be levied except permitted exit loads and SEBI-approved charges. MFDs may also receive additional commission as permitted by SEBI to encourage wider investor outreach. AMCs must disclose scheme-wise, daily TER on their website and AMFI's website in a downloadable format.

Chapter 8: Taxation

Applicability of taxes in respect of mutual funds

Tax impact should be considered when evaluating mutual fund returns, focusing on post-tax returns. Taxation applies at two levels: income earned by the scheme and income earned by the investor:

Income Earned by Mutual Fund Schemes

- Schemes earn income through interest, dividends and capital gains.
- Mutual fund income is generally exempt from income tax, subject to applicable provisions.

Income Earned by Investors

- Investors may earn IDCW and/or capital gains depending on the option chosen and redemption.
- Tax treatment depends on income type, holding period, scheme type, investor category and purchase/redemption date.
- Funds investing over 65% in listed Indian equity are generally classified as equity-oriented; others are non-equity-oriented.

Capital Gains

- Capital gain/loss arises from the difference between the purchase and sale price of mutual fund units.
- Capital gains are classified as short-term or long-term based on the holding period and type of fund. For equity-oriented funds, the threshold is 12 months; for other assets, it is generally 24 months.
- Tax rates and rules have been revised over time, including through the Union Budget 2024.
- Grandfathering for equity investments ensured that gains accrued up to January 31, 2018 were not taxed retrospectively; the NAV/purchase price as of that date is considered while calculating taxable gains.

Exemption up to Rs. 1.25 lakhs: In case of long-term capital gains arising out of equity shares and equity-oriented mutual funds, the tax is applicable only on the capital gains above Rs. 1.25 lakhs. The first Rs. 1.25 lakhs worth of long-term capital gain from this category is tax-exempt

Tax Regulations for Unit Holders

Investment asset	STCG	LTCG	Holding period
Equity-oriented funds (including hybrid funds with more than 65% in equity)	20%	12.50%	LTCG applicable after 12 months. Exemption Rs 1.25 lakh per financial year.
Debt-oriented funds (including hybrid funds with more than 65% in debt)	Marginal Slab Rate (MSR)		
Hybrid mutual funds with 35% to 65% in domestic equities	MSR	12.50%	LTCG applicable after 24 months
Other MFs (Fund of Funds, International Funds / FOFs)	MSR	12.50%	LTCG applicable after 24 months
Equity ETFs	MSR	12.50%	LTCG applicable after 12 months
Gold ETFs	MSR	12.50%	LTCG applicable after 12 months
Debt ETFs	Marginal Slab Rate (MSR)		

Income Distribution cum Capital Withdrawal (IDCW)

- Until FY 2019–20, dividends were tax-free for investors, while the mutual fund paid Dividend Distribution Tax (DDT), which reduced the scheme's NAV. Since April 2020, DDT has been abolished and IDCW is taxable in the investor's hands at the applicable marginal tax rate.
- The tax impact therefore depends on the investor's income and tax slab; eligible tax-exempt investors may not have a tax liability.
- Growth plans can be more tax-efficient as tax is deferred until capital gains are realised, allowing potential compounding before tax.
- Since April 2021, IDCW disclosures distinguish between distribution from income/appreciation and distribution of capital for tax purposes.

Set-off of Capital Gains and Losses

Capital losses cannot be set off against salary or other heads of income. Short-term capital loss can be set off against both short-term and long-term capital gains. Long-term capital loss can be set off only against long-term capital gains. Unused capital losses can be carried forward for up to 8 years. Bonus stripping provisions restrict the use of certain artificial capital losses arising around bonus issues.

Securities Transaction Tax (STT)

STT applies to transactions in equity-oriented mutual funds, including redemption/sale and switches. STT is not applicable on purchase of equity mutual fund units or transactions in debt mutual funds. For delivery-based sale/redemption of equity-oriented mutual fund units, STT is generally charged at 0.001% to the seller.

Chapter 9: Investor Services

NFO Process

- The AMC identifies a suitable new scheme based on investment opportunities, investor needs and market demand, subject to SEBI's category-wise restrictions.
- The AMC prepares the SID, obtains approval from the Trustees and AMC Board, incorporates SEBI observations, and files the documents with SEBI.
- After approval, the AMC markets the NFO, conducts investor/intermediary outreach and opens the scheme for subscription.
- For open-ended schemes, the key dates are NFO Open Date, NFO Close Date and Scheme Re-opening Date. Closed-ended schemes do not have a re-opening date and are traded on stock exchanges.
- NFOs must remain open for at least 3 working days and, except ELSS, for a maximum of 15 days. Allotment/refund must generally be completed within 5 business days of closure.

NFO Price / Ongoing Offer Price

- NFO Price is the price per unit at which investors subscribe during the New Fund Offer.
- For ongoing transactions, purchase and redemption prices are generally based on the applicable NAV.
- Since entry load is not permitted, the purchase price is generally equal to NAV; redemption price may be lower if an exit load applies.

Direct and Regular Plans

- Mutual funds offer both Regular and Direct Plans.
- Regular Plans are invested through distributors and include distribution-related expenses/commissions, resulting in a higher TER.
- Direct Plans are invested directly with the AMC, have no distributor commission and therefore a lower TER.
- Since their expenses differ, Direct and Regular Plans have separate NAVs.

Allotment of Units to the Investor

- NFO: Since entry load is banned, units in an NFO are sold at the face value i.e., Rs. 10. Therefore, the investment amount divided by Rs. 10 would give the number of units the investor has bought.
- On-going offer: The price at which units are sold to an investor as part of ongoing sales in an open-end scheme is the sale price, which in turn is the applicable NAV (currently entry load is not permitted by regulation, hence the sales price is equal to the NAV).
- In a rights issue, the price at which the units are offered is clear at the time of investment. The investment amount divided by the rights price gives the number of units that the investor has bought.
- In a bonus issue, the investor does not pay anything. The fund allots new units for free. Thus, in a 1:3 bonus issue, the investor is allotted 1 new unit (free) for every 3 units already held by the investor.

Account Statement for Investors:

- Monthly Account Statement
- Annual Account Statement
- Consolidated Account Statement

Eligibility to Invest in Mutual Funds

- Individual investors: Resident Indians, minors through guardians, HUFs, and NRIs/PIOs can invest, subject to applicable requirements.
- Foreign investors: Eligible foreign investors can invest after completing the required KYC and regulatory formalities.
- Non-individual investors: Companies, trusts, societies, partnership firms, banks, financial institutions, other mutual funds, FPIs, universities and other eligible institutions can invest.
- Eligibility may vary by scheme; therefore, investors should always check the “Who Can Invest?” section of the SID before investing.

The information required for filing mutual fund applications is Unit Holder Information, Status of the holder and mode of holding, KYC Details, FATCA & CRS Details, Bank Account Details, Investment Details, Payment Details, Unit Holding Option and Nomination.

The types of financial transaction with mutual funds include Initial purchase of mutual fund units, Additional purchases, re-purchase of units, Switch, redemption etc.

Payment mechanisms for mutual fund transactions include:

- Online transactions
- Internet banking
- M-Banking
- UPI
- Applications supported by Blocked accounts (ASBA)
- Aadhar enabled payment services
- National unified USSD platform
- Cards/ E-Wallets
- One-Time Mandate
- Cheque/Demand draft
- Cheque

The sale and re-purchase prices are a function of the applicable NAV. In order to ensure fairness to investors, SEBI has prescribed cut-off timing to determine the applicable NAV. These provisions are uniformly applicable for all mutual funds.

KYC Requirements

- Centralised KYC allows an investor to complete KYC once through a registered intermediary/KRA and use it across the securities market. A unique KYC identifier is issued through the Central KYC Registry.
- KYC generally requires identity/address proof, PAN and mandatory In-Person Verification (IPV). Online KYC through e-KYC, eSign, DigiLocker and other digital methods is also permitted.
- For minors, KYC is completed by the guardian; for PoA investments, both the investor and PoA holder must complete KYC. NRIs require PAN, passport/PIO/OCI card and overseas address proof.
- Institutional investors must provide additional details such as constitutional documents, investment and signatory authorisations, and Ultimate Beneficial Owner (UBO) details.
- Investors must also provide FATCA/CRS information, including tax residency and taxpayer identification details, where applicable.
- Once KYC is completed and uploaded, subsequent changes to investor details can generally be updated through a single intermediary and shared across the relevant financial institutions.

Systematic Transactions

- SIP is an approach where the investor invests constant amounts at regular intervals. A benefit of such an approach, particularly in equity schemes, is that it averages the unitholder's cost of acquisition since more

units are bought for the same amount of investment when the price/markets are down and fewer units when the price/markets are up.

- SWP (Systematic Withdrawal Plan) allows an investor to withdraw a fixed amount or number of units from a mutual fund at regular intervals.
- STP (Systematic Transfer Plan): Allows an investor to transfer a fixed amount or number of units from one mutual fund scheme to another at regular intervals.
- Switch: Allows an investor to transfer their investment from one mutual fund scheme/plan to another within the same mutual fund.
- Mutual funds provide an additional facility through an SIP to enhance the disciplined savings of investors. It is called the SIP Top-Up facility. Investors have the option to increase the SIP amount at intervals chosen by them.

Non-Financial Transactions

Non-Financial transactions in a mutual fund include nomination, Pledge/lien of units, Change in personal information, change in guardian, change in minor to major, change in bank units.

Chapter 10: Risk, Return and performance of funds

General Risk Factors

- Liquidity Risk – Risk of not being able to sell an investment quickly at a fair price due to lack of market liquidity.
- Interest Rate Risk – Risk that changes in interest rates may adversely affect the value of investments, particularly bonds.
- Re-investment Risk – Risk that cash flows or matured investments may have to be reinvested at lower interest rates.
- Political Risk – Risk that changes in government policies, regulations or political conditions may negatively impact investments.
- Economic Risk – Risk that a slowdown or adverse changes in economic conditions may reduce investment returns.
- Foreign Currency Risk – Risk of losses arising from fluctuations in exchange rates when investing in foreign-currency assets.

Specific Risk Factors

Risk related to equity and equity related securities

- Equity Price & Liquidity Risk – Equity investments can be volatile, and low trading volumes or settlement issues may restrict liquidity and affect returns.
- Market & Regulatory Risk – Interest rates, currency movements, government policies, taxation and economic or political developments can adversely affect securities.

Risk associated with short selling and Stock Lending

- Securities Lending Risk – The borrower or intermediary may default, resulting in loss of securities, collateral or corporate benefits.
- Short Selling Risk – Borrowed securities may become illiquid or rise sharply in price, leading to potentially significant losses while covering the position.

Risks associated with mid-cap and small-cap companies

- Mid & Small Cap Risk – These companies generally carry higher volatility and liquidity risk and may fail to achieve expected growth.

Risk associated with Dividend

- **Dividend Risk** – Dividend payments are not guaranteed and may decline or cease depending on the company's profitability and policies.

Risk associated with Derivatives

- **Counterparty Risk** – A derivative counterparty may fail to meet its contractual obligations, potentially causing losses.
- **Market Liquidity Risk** – Limited trading volumes may make derivatives difficult to transact or result in significant price impact.
- **Model Risk** – Incorrect assumptions or valuation models may lead to mispricing of derivatives.
- **Basis Risk** – The derivative and the underlying asset may not move in line, reducing the effectiveness of the hedge.
- **Execution Risk** – Market disruptions, insufficient bids or trading restrictions may prevent the scheme from executing derivative transactions.
- **Leverage Risk** – Derivatives can magnify both gains and losses relative to the amount invested.
- **Fixed Income Derivative Risk** – Fixed-income derivatives may carry additional interest-rate and liquidity risks.
- **Strategy Risk** – The success of derivative strategies depends on the fund manager's ability to identify and execute suitable opportunities.

Risks related to debt funds

- **Reinvestment Risk** – Interest or principal received may have to be reinvested at lower prevailing interest rates.
- **Rating Migration Risk** – A downgrade in an issuer's credit rating can reduce the market value of its securities.
- **Term Structure of Interest Rate Risk** – Changes in interest rates can cause the value of fixed-income securities, and consequently NAV, to rise or fall.
- **Credit Risk** – An issuer or counterparty may default on interest or principal payments, resulting in losses.

Risk associated with floating rate securities

- **Spread Risk** – The spread over the benchmark rate may widen, reducing the value of the floating-rate security.
- **Basis Risk** – Changes or reduced activity in the underlying benchmark may cause it to inadequately reflect actual interest-rate movements.

Risk factors associated with repo transactions in Corporate Bonds

- **Repo Counterparty Risk** – A counterparty may fail to honour the repurchase agreement, potentially causing a loss on the collateral.

Risks associated with Creation of Segregated portfolio

- **Segregated Portfolio Risk** – Investors may be unable to liquidate units until recovery from the issuer, and the units may have little or no value or liquidity.

Risks associated with investments in Securitised Assets

- **Asset Class Risk** – The performance and credit quality of securitised assets depend on the underlying borrowers, collateral, documentation and broader economic conditions.
- **Pool Size Risk** – Very small loan sizes may provide diversification but can make recovery processes more difficult and costly.
- **Loan-to-Value (LTV) Risk** – Higher LTV ratios generally indicate greater default risk as borrowers have less equity invested in the underlying asset.
- **Maturity & Seasoning Risk** – Longer or less-seasoned loans may carry greater uncertainty regarding repayment capacity and borrower behaviour.
- **Default Rate Risk** – Higher levels of overdue or defaulted loans within the pool indicate greater credit and recovery risk.

Risk Factors Associated with Investments in REITs and InvITs

- REITs/InvITs are exposed to price, interest rate, credit, liquidity, reinvestment and lower-than-expected distribution risks.
- **Managing Market Liquidity Risk:** Liquidity is managed by maintaining adequate cash and investing primarily in securities with good secondary-market liquidity.
- **Managing Credit Risk:** Credit risk is managed through investments in high-quality issuers, detailed credit research, due diligence and issuer-level exposure limits.
- **Managing Term Structure of Interest Rates Risk:** Interest rate risk is managed by actively adjusting portfolio duration based on market conditions, with generally short-duration investments limiting the impact.
- **Managing Rating Migration Risk:** Rating migration risk is managed by focusing on high-quality securities and conducting regular credit reviews and monitoring.
- **Re-investment Risk:** Reinvestment risk is expected to be limited as the scheme's fixed-income investments are generally short duration.
- **Market Risk related to equity and equity related securities:** Equity risk is managed through detailed in-house research covering financials, management quality, business prospects, competitive position and corporate governance.
- **Risk associated with floating rate securities:** Low liquidity in floating-rate securities can limit price discovery, so incremental investments in such securities are expected to remain limited.
- **Managing Risk associated with favourable taxation of equity-oriented Scheme:** This risk is managed through regular monitoring of the equity exposure of each equity-oriented scheme.

Factors affecting performance of equity schemesFundamental Analysis

Evaluates a company's business, financials and prospects to identify fundamentally strong securities with attractive long-term return potential and manageable risk. Relevant terminologies include:

- Earnings Per Share (EPS)
- Price to Earnings Ratio (P/E Ratio)
- Price Earnings to Growth Ratio (PEG Ratio)
- Book Value Per Share
- Price to Book Value
- Dividend Yield

Investment Styles:

- **Growth investment style** entails investing in high growth stocks i.e., stocks of companies that are likely to grow much faster than the market.
- **Value investment style** is an approach of picking up stocks, which are priced lower than their intrinsic value, based on fundamental analysis. The belief is that the market has not appreciated some aspect of the value in a company's share – and hence it is cheap.

Approaches to Investing:

- **Top-Down Approach:** Starts with the macroeconomic environment, then identifies attractive industries/sectors and finally selects the best companies within them.
- **Bottom-Up Approach:** Starts with company-specific fundamentals, then evaluates the industry and broader economy; stock selection is the primary driver of portfolio construction.

Technical Analysis

Analyses historical price and trading-volume patterns to identify trends, support/resistance levels and other signals for buy, sell or hold decisions.

Factors affecting performance of debt schemes

- Debt fund returns are primarily driven by interest rates and credit spreads.
- Interest rates and bond prices move inversely—rising yields reduce bond prices, while falling yields increase them.
- Longer-duration securities are more sensitive to interest rate changes and therefore more volatile; modified duration measures this sensitivity.
- Floating-rate securities adjust their coupons with market rates and generally have lower interest rate sensitivity.
- Fund managers may alter portfolio duration based on their interest rate outlook, but incorrect views can hurt returns.
- Credit spread changes also impact bond prices; improving credit quality can generate gains, while deterioration increases risk.
- Debt strategies may focus on accrual income, capital appreciation, or both, depending on their mandate.
- The scope for active risk-taking depends on the fund category and its regulatory/scheme-defined limits.

Measures of Return

- Simple Return: Measures the percentage change in an investment's value over a period, without adjusting for the length of the period or compounding.
- Annualized Return: Converts a return earned over a period into an equivalent annual rate, making investments with different time periods comparable.
- Compounded Return: Calculates returns by considering the effect of earning returns on previously accumulated returns (compounding).
- CAGR (Compounded Annual Growth Rate): Measures the average annual growth rate of an investment over multiple years, assuming returns/dividends are reinvested and compounded.

Risks in various Asset Classes

- Risks in Equity Funds: Equity funds face price, business and liquidity risks, which generally increase from large-cap to mid-cap to small-cap and further with concentrated portfolios. Higher risk can mean higher return potential, but investors should align investments with their risk profile and liquidity needs.
- Risks in Debt Funds: Debt fund NAVs can fluctuate due to interest-rate movements and credit events, and regular IDCW is not guaranteed. Even low-duration or liquid funds carry credit and liquidity risks, so low risk does not mean zero risk.
- Risks in Hybrid Funds: Risk depends on the fund's equity-debt mix and strategy; even arbitrage funds may take additional risks through debt or non-pure arbitrage strategies, potentially resulting in lower or negative returns.
- Risks in Gold Funds: Gold funds are exposed primarily to fluctuations in gold prices; a fall in gold prices can result in losses, despite gold often providing diversification during market stress.
- Risks in Real Estate Funds: Real estate funds face high valuation, liquidity, regulatory, transaction, litigation and governance risks, making them relatively high-risk investments, though generally less risky than direct real estate investing.

Measures of Risk

- Variance: Measures how widely a fund's returns deviate from its average return; higher variance indicates higher risk.

- **Standard Deviation:** Measures the volatility of returns and shows how much returns typically fluctuate around the average; higher standard deviation means higher risk.
- **Beta:** Measures a fund's sensitivity to market movements; a beta above 1 indicates the fund tends to move more than the market, while below 1 indicates lower sensitivity.
- **Modified Duration:** Measures a debt security/fund's sensitivity to changes in interest rates; higher duration means greater price impact when interest rates change.

Credit Rating

It indicates the creditworthiness of a debt issuer and its ability to repay interest and principal; higher-rated securities generally carry lower credit risk.

Chapter 11: Mutual Fund Scheme Performance

Benchmarks & Performance

A benchmark is a comparable index used to evaluate a mutual fund's performance. It should align with the scheme's investment objective, asset allocation and investment strategy, and be independently calculated and transparently published. The benchmark is disclosed in the SID and may be changed with justification and trustee approval.

Price Return Index (PRI) vs Total Return Index (TRI)

PRI captures only the capital appreciation of index constituents, while TRI includes both capital gains and dividends/interest. Since February 1, 2018, mutual fund schemes are benchmarked against TRI to ensure a fairer performance comparison.

Choosing the Right Benchmark: The benchmark should be selected based on the scheme's investment objective, investment strategy and asset allocation pattern. Performance should be compared with the TRI version of the chosen benchmark.

Benchmarks for equity schemes

Equity Schemes

- **Scheme Type:** Diversified funds use broad indices like Nifty 50/Nifty 500, while sectoral or thematic funds use the relevant sector/theme index.
- **Investment Universe:** Large-cap funds use large-cap indices (Nifty 50), while mid- and small-cap funds use corresponding mid-/small-cap indices.
- **Portfolio Concentration:** Focused funds can use narrower indices, while diversified funds are better compared with broader indices.

Debt Schemes

- **Scheme Type:** Liquid funds use short-term money market benchmarks, while other debt funds use benchmarks matching their portfolio characteristics.
- **Investment Universe:** Gilt funds use Government Securities indices, while diversified debt funds use indices covering both Government and non-Government securities.

Other Schemes

- **Hybrid Funds:** Use a blended benchmark reflecting their equity and debt allocation.
- **Gold ETFs:** Benchmark is the price of gold.
- **Real Estate Funds:** Use relevant real estate indices where available.
- **International Funds:** Use the relevant country/region index or a blended index for multi-country portfolios.

Quantitative Measures of Fund Manager Performance

- **Sharpe Ratio:** Measures excess return earned per unit of total risk (volatility); higher Sharpe indicates better risk-adjusted performance.
- **Treynor Ratio:** Measures excess return earned per unit of market risk (Beta); higher Treynor indicates better returns for the market risk taken.
- **Alpha:** Measures the excess return generated by a fund over the return expected based on its market risk (Beta); positive alpha indicates outperformance.
- **Information Ratio:** Measures a fund's excess return over its benchmark relative to the consistency of that outperformance; higher Information Ratio indicates better benchmark-relative performance.
- **Tracking Error:** Measures how closely a fund's returns follow its benchmark; lower tracking error indicates closer alignment with the benchmark.

Chapter 12: Mutual Fund Scheme SelectionScheme Selection based on Investor needs, preferences and risk-profile

- **Investor Need:** Select schemes based on the investor's objective—long-term growth, regular income, or high liquidity.
- **Financial Goals:** Start by defining clear financial goals and then assess the investor's situation and risk profile.
- **Risk Profile:** Risk appetite depends on the investor's need, ability and willingness to take risk.
- **Asset Allocation:** Allocation across equity, debt and other asset classes should consider the investor's goals, risk profile and investment horizon.
- **Age vs Time Horizon:** Age alone should not determine risk-taking ability; the time remaining to the financial goal is more relevant.
- **Investment Horizon:** Longer investment horizons generally allow investors to take more risk, while near-term goals require greater capital stability.
- **Core Portfolio:** Long-term, diversified investments designed to meet the investor's core financial goals.
- **Satellite Portfolio:** Tactical investments aimed at benefiting from short-term market opportunities, such as sector funds, gilt funds or gold funds.
- **Core-Satellite Mix:** The allocation between core and satellite investments should depend on the investor's risk profile, with conservative investors generally having lower tactical exposure.

Some Common Hierarchies

1. Risk-Return Hierarchy of Mutual Funds:

Liquid Funds – Debt Funds – Hybrid Funds – Equity Funds

2. Risk Return Hierarchy of Debt Funds

Overnight funds – Liquid funds – Ultra short duration funds – Low duration funds – Short duration funds – Medium duration funds – Medium to long duration funds – Long duration funds

3. Hierarchy of Credit Risk in Debt Funds

Gilt fund – Banking and PSU fund – Corporate bond fund – Credit risk fund

4. Risk-Return Hierarchy of Equity Mutual Funds

Small cap funds – Mid-cap funds – Multi cap funds – Large and mid-cap funds – Large cap funds

5. Risk Return Hierarchy of Diversified to Concentrated Funds

Diversified funds – Focused funds – Thematic funds – Sector funds

6. Risk Return Hierarchy of Hybrid Funds

Arbitrage fund – Conservative hybrid fund - Equity savings fund — Dynamic asset allocation fund – Multi asset allocation fund – Balanced hybrid fund – Aggressive hybrid fund.

Scheme Selection – Key Factors:

- Scheme selection should consider the investment objective, strategy, portfolio characteristics, and the risk-return profile of the scheme.
- Active funds aim to outperform the benchmark but involve higher costs and manager-selection risk; passive funds track an index at lower cost.
- Open-ended funds offer better liquidity, while close-ended funds may offer greater flexibility to the manager but have limited exit options.
- Diversified funds generally carry lower risk than focused, sectoral and thematic funds; the latter are better suited to the satellite portfolio.
- Large-cap funds are relatively stable, while mid- and small-cap funds offer higher growth potential but greater volatility; flexi-cap funds can invest across market caps.
- Growth funds target high-growth companies, while value funds seek undervalued stocks and typically require a longer investment horizon.
- International funds provide geographical diversification but also carry currency risk; FMPs and TMFs are suited to investors whose investment horizon matches their maturity.
- Debt fund selection should consider duration, credit quality, liquidity and the fund manager's interest-rate strategy; liquid and short-duration funds generally have lower volatility.
- Hybrid funds combine equity and debt; investors should assess both the asset allocation and the quality/risk of each component.
- Gold ETFs track gold prices, while gold sector funds invest in gold-related companies and therefore carry additional business risks.
- Within a category, evaluate the AMC/fund manager, portfolio alignment with the stated strategy, long-term performance versus benchmark and peers, portfolio composition, fund age and size.
- Also assess portfolio turnover, expenses and risk-adjusted returns; high turnover or costs can reduce investor returns.

Module 2: Equity Derivatives

Chapter 13: Basics of Derivatives

A derivative is a contract or a product whose value is derived from the value of some other asset known as the underlying. Derivatives are based on a wide range of underlying assets.

Products in the Derivatives Market

- **Forwards:** A private agreement between two parties to buy or sell an asset at a fixed price on a future date. It is customized but carries counterparty risk.
- **Futures:** Standardized, exchange-traded contracts to buy or sell an asset at a predetermined price on a future date. They are marked-to-market and require margin.
- **Options:** Contracts that give the buyer the right, but not the obligation, to buy or sell an asset at a predetermined price. The buyer pays a premium for this right.
- **Swaps:** Contracts where two parties exchange cash flows based on agreed terms, such as exchanging fixed interest payments for floating-rate payments.

Market Participants

- **Hedgers:** Use derivatives to reduce or manage the risk of adverse price movements in an underlying asset. Their primary objective is protection rather than profit.
- **Speculators/Traders:** Use derivatives to take positions based on expected price movements, aiming to earn profits. They knowingly take on higher market risk.
- **Arbitrageurs:** Exploit price differences for the same or related asset across markets or instruments to earn relatively low-risk profits.

Chapter 14: Understanding the IndexIntroduction to an Index

A financial index is a basket of securities designed to measure the performance of a market or a specific segment. The percentage change in the index is more important than its absolute value.

Significance of Stock Index

- Indicates the performance of the overall market or a specific sector.
- Acts as a benchmark to evaluate portfolio performance.
- Serves as an underlying asset for various derivative products.

Types of Stock Market Index

- **Market Capitalization Weighted Index:** Stocks are weighted according to their total market capitalization. Larger companies have a greater impact on the index's movement.
- **Free-Float Market Capitalization Index:** Stocks are weighted based on the market value of shares actually available for public trading (free float), excluding promoter/strategic holdings.
- **Price-Weighted Index:** Stocks are weighted based on their share prices. Higher-priced stocks have a greater influence on the index, regardless of company size.
- **Equal Weighted Index:** Each stock is given the same weight in the index, regardless of its market capitalization or share price.

A good market index should have following attributes:

- It should reflect the market behavior.
- It should be computed by independent third party and be free from influence of any market participant.
- It should be professionally maintained.

Impact Cost: It measures the cost of executing a trade, showing how much the actual execution price differs from the ideal/current market price due to the trade's size and market liquidity.

Index Management:

- Index construction involves selecting stocks and deciding the methodology used to calculate the index.
- Index maintenance adjusts the index for corporate actions such as stock splits, bonuses, rights issues, mergers, etc.
- Index revision involves periodically replacing stocks to ensure the index continues to represent the relevant and actively traded securities.

Index Construction

- A good index balances diversification and liquidity. Diversification reduces risk, but beyond a point, adding more stocks provides little additional benefit.

- Stocks are selected based on predefined quantitative and qualitative criteria, with final inclusion/removal typically decided by an Index Committee.

Maintenance vs Revision

- Maintenance keeps the index comparable over time by adjusting for corporate actions.
- Revision changes the index composition to ensure it continues to reflect the most relevant and active securities in the market.

Chapter 15: Introduction of Forwards and Futures

A forward contract is an agreement made directly between two parties to buy or sell an asset on a specific date in the future, at the terms decided today. Forwards are widely used in commodities, foreign exchange, equity and interest rate markets.

Limitations of Forwards:

- Liquidity Risk
- Counterparty Risk

A futures contract is an agreement made through an organized exchange to buy or sell a fixed amount of a commodity or a financial asset on a future date at an agreed price. In simple terms, futures are standardized forward contracts that are traded on an exchange

Features of futures contracts:

- Contract between two parties through Exchange
- Centralized trading platform (i.e., Exchange)
- Price discovery through free interaction of buyers and sellers
- Margins payable by both the parties
- Quality decided today (standardized)
- Quantity decided today (standardized)

Limitations of Futures Contract:

As futures are standardized contracts introduced by the exchanges, they too have certain limitations in the context of limited maturities, limited underlying set, lack of flexibility in contract design and increased administrative costs on account of MTM settlement, etc.

Key Terminologies

- **Underlying Instrument:** The asset or financial instrument whose price/value the derivative contract is based on, such as an index, stock, or commodity.
- **Contract Multiplier / Contract Size:** The quantity of the underlying asset represented by one futures or options contract.
- **Contract Cycle:** The set of expiry months or periods for which contracts are available for trading.
- **Expiration Day:** The date on which a derivative contract expires and is settled.
- **Tick Size:** The smallest permitted price movement of a futures or options contract.
- **Daily Settlement Price:** The price used at the end of each trading day to calculate profits/losses and MTM obligations.
- **Final Settlement Price:** The price used to calculate the final profit or loss when the contract expires.
- **Trading Hours:** The specific hours during which the derivative contract can be bought and sold on the exchange.
- **Basis:** The difference between the spot price of the underlying and its futures price.
Basis = Spot Price – Futures Price

- **Cost of Carry:** The net cost of holding the underlying until the futures contract expires, including financing costs and adjusting for income such as dividends.
- **Initial Margin:** The upfront amount deposited with the exchange/broker as security against potential losses on a derivative position.
- **Marking to Market (MTM):** The daily process of settling gains or losses based on the change in the contract's market price.
- **Open Interest:** The total number of outstanding derivative contracts that have not yet been closed or settled.
- **Volumes Traded:** The total number of contracts bought and sold during a specified trading period.
- **Price Band:** The maximum permissible range within which the price of a security can move during a trading day. It helps limit extreme price volatility.

Positions in Derivative Markets:

Term	Explanation
Long Position	A position created by buying a derivative contract, expecting its price to rise. The investor profits if the price increases.
Short Position	A position created by selling a derivative contract, expecting its price to fall. The investor profits if the price decreases.
Open Position	A derivative position that has been entered into but has not yet been closed or settled. It represents the investor's current exposure.
Naked Position	A position where the investor has taken a derivative position without holding an offsetting position in the underlying asset or another derivative. It carries higher risk.
Calendar Position	A strategy involving opposite positions in the same underlying but with different expiry dates, e.g., long one-month futures and short three-month futures.
Opening a Position	Entering into a new derivative contract by buying or selling it, thereby creating an open position.
Closing a Position	Exiting an existing derivative position through an offsetting transaction—selling what was bought or buying back what was sold.

Readers are requested to go through the payoff charts in the book to understand the positions more in detail.

Futures Pricing

Futures prices depend on the characteristics of the underlying asset. Two commonly used approaches are the Cost of Carry Model and the Expectations Model.

1. Cost of Carry Model

- Based on the no-arbitrage principle: the cost of creating a synthetic futures position should equal the futures price.
- Fair Futures Price = Spot Price + Cost of Carry – Inflows.
- Cost of carry may include financing, storage, insurance and other holding costs, while inflows include dividends or interest.
- If futures trade above fair value, cash-and-carry arbitrage involves buying the asset and selling futures. If futures trade below fair value, reverse cash-and-carry arbitrage may be used.
- Transaction costs, taxes and margins create no-arbitrage bounds around the fair price.
- The model works best when the underlying is readily available, storable and can be bought/sold easily.
- Convenience yield represents the non-monetary benefit of physically holding a commodity, particularly when inventories are scarce. It can sometimes cause futures to trade below spot.

2. Expectations Model

- This model suggests that the futures price reflects the market's expected spot price of the underlying at the contract's expiry.
- Futures can therefore trade at either a premium or discount to the current spot price.
- Futures price above spot is associated with a contango market, while futures below spot is associated with backwardation.

Price Discovery & Convergence

- Futures prices help the market discover the expected future spot price.
- As expiry approaches, futures and spot prices converge because the futures contract ultimately settles against the underlying market price.

Uses of Futures & Participants in Derivatives Markets

There are three major participants in derivatives markets:

- **Hedgers:** Use futures to reduce or manage exposure to risks such as changes in interest rates, stock prices, currencies or commodity prices. For example, a farmer can sell wheat futures to lock in a future selling price, while an investor can sell index futures to protect an equity portfolio.
- **Speculators/Traders:** Take positions based on their expectation of future price movements, aiming to earn profits. Futures require less capital than directly trading the underlying asset, creating leverage—but also magnifying both gains and losses.
- **Arbitrageurs:** Exploit price differences for the same or related assets across markets by buying in the cheaper market and selling in the expensive market simultaneously. Their activity helps bring prices across markets into alignment.

Role in the Market

- Hedgers transfer unwanted risk, while traders are willing to take that risk and provide liquidity and market depth.
- Arbitrageurs connect different markets and help eliminate pricing inefficiencies.
- All three participants are important for an efficient and liquid derivatives market.

Important Terms in Hedging

- **Long Hedge:** Hedging a future purchase by taking a long position in futures. It protects against a rise in the price of the asset before the actual purchase is made.
- **Short Hedge:** Hedging an existing investment or future sale by taking a short position in futures. It protects against a fall in the value of the underlying asset.
- **Cross Hedge:** Hedging an asset using futures on a different but closely related asset when futures on the actual asset are unavailable. For example, using crude oil futures to hedge jet fuel exposure.
- **Hedge Contract Month:** The expiry month of the futures contract used for hedging. Generally, the contract expiring just after the date when the hedged position is expected to be unwound is preferred.

Chapter 16: Introduction to Options

An option is a contract that gives the holder of the option the right, but not an obligation, to buy or sell the underlying asset on or before a stated date/day, at a predetermined price. This right can be bought for a price known as the option premium. The party taking a long position i.e., buying the option is called buyer/ holder of the option and the party taking a short position i.e., selling the option is called the seller/ writer of the option. The option buyer must pay the premium to the option seller upfront, i.e., at the time of buying the option.

Option Terminologies

- **American Option:** Can be exercised by the buyer at any time on or before the expiry date.
- **European Option:** Can be exercised by the buyer only on the expiry date. In India, stock and index options are European style.

- **Option Premium:** The price paid by the option buyer to the option seller for acquiring the option right.
- **Spot Price (S):** The current market price of the underlying asset in the spot/cash market.
- **Strike Price / Exercise Price (X):** The pre-decided price at which the underlying can be bought through a call or sold through a put option.
- **Open Interest:** The total number of outstanding option contracts that have not yet been closed or settled.
- **Exercise of Options:** The process by which the option buyer uses their contractual right. For European options, this occurs only on expiry.
- **Assignment of Options:** The allocation of an exercised option to one or more option sellers, creating their obligation to fulfil the contract.
- **Opening Purchase:** Buying an option to create or increase a long position in that option.
- **Opening Sale:** Selling an option to create or increase a short position in that option.
- **Closing Purchase:** Buying an option to reduce or close an existing short position, also called covering.
- **Closing Sale:** Selling an option to reduce or close an existing long position, also called squaring off.
- **Index Option:** An option where the underlying asset is a stock market index, such as Nifty 50 or Sensex.
- **Stock Option:** An option where the underlying asset is an individual stock, such as ONGC or NTPC.
- **Buyer of an Option:** Pays the premium and gets the right, but not the obligation, to buy (call) or sell (put) the underlying.
- **Writer of an Option:** Receives the premium and takes the obligation to sell (call) or buy (put) the underlying if the buyer exercises the option.
- **Contract Size / Lot Size:** The number of units of the underlying asset covered by one option contract. It determines the total value and premium of the contract.
- **Contract Trading Cycle:** The period during which an option contract is available for trading before expiry. Different contracts may have weekly, monthly or longer maturities.
- **Expiration Date:** The last trading day of the option contract, after which the contract ceases to exist.
- **Tick Size:** The minimum amount by which the quoted price of an option can move. It is specified by the exchange.
- **Final Settlement Price:** The closing price of the underlying index or stock in the cash market on the last trading day, used for final settlement of the option.
- **Trading Hours:** The period during which options can be traded on the exchange. Equity options in India generally trade from 9:15 AM to 3:30 PM on trading days.

Moneyiness of an option

- **In-the-Money (ITM):** An option that would generate a positive payoff if exercised immediately. Call: Spot > Strike; Put: Spot < Strike.
- **At-the-Money (ATM):** An option where the strike price is closest to the spot price, resulting in little or no immediate payoff.
- **Out-of-the-Money (OTM):** An option that would generate a negative payoff if exercised immediately. Call: Spot < Strike; Put: Spot > Strike.

Intrinsic Value and Time Value of an Option

- **Intrinsic Value:** The value an option would have if exercised immediately. Call = $\max(S - X, 0)$; Put = $\max(X - S, 0)$. Only ITM options have intrinsic value.
- **Time Value:** The portion of an option premium attributable to the possibility of the option becoming more valuable before expiry. Time Value = Premium – Intrinsic Value.
- **Option Premium:** The total price paid by the buyer for an option. Premium = Intrinsic Value + Time Value.

Different Option positions

- **Long Option:** Buying an option and paying a premium to obtain the right, but not the obligation, to exercise it. Maximum loss is generally limited to the premium paid.

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- **Short Option:** Selling/writing an option and receiving the premium. The seller takes on an obligation if the buyer exercises the option, so losses can be substantial.
- **Long Call:** Buying a call option, giving the holder the right to buy the underlying at the strike price. The position profits when the underlying rises significantly above the strike price.
- **Short Call:** Selling a call option and receiving the premium, while taking the obligation to sell the underlying at the strike price if exercised. The position benefits when the underlying stays below the strike price.
- **Long Put:** Buying a put option, giving the holder the right to sell the underlying at the strike price. The position profits when the underlying falls significantly below the strike price.
- **Short Put:** Selling a put option and receiving the premium, while taking the obligation to buy the underlying at the strike price if exercised. The position benefits when the underlying stays above the strike price.

	Futures	Options
Obligation	Both buyer and seller have an obligation to fulfil the contract.	Buyer has a right but no obligation; seller has an obligation if exercised.
Initial Payment	Both parties pay initial margin.	Buyer pays premium; seller deposits margin.
Risk / Payoff	Both buyer and seller can have unlimited gains or losses.	Buyer's loss is limited to premium paid; seller can face substantial/unlimited losses.
Leverage	Provides leverage through margin-based exposure.	Provides high leverage because a relatively small premium gives exposure to a larger contract value.
Daily MTM	Both buyer and seller are subject to daily MTM.	Generally, only the option seller is subject to daily MTM margins.
Nature of Payoff	Symmetric — gains and losses can move proportionately with the underlying.	Asymmetric — buyer's downside is limited while upside can be substantial.

Option Pricing Fundamentals

Option pricing is dependent on the follows:

1. **Spot Price of the Underlying Asset:** The current market price of the asset. Generally, a higher spot price increases the value of a call option and decreases the value of a put option.
2. **Strike Price of the Option:** The price at which the option holder can buy (call) or sell (put) the underlying asset. A higher strike generally reduces call value and increases put value.
3. **Volatility of the Underlying Asset:** Measures how much the underlying asset's price is expected to fluctuate. Higher volatility generally increases the value of both call and put options.
4. **Time to Expiration:** The remaining time before the option expires. Generally, more time gives the option greater opportunity to become profitable, increasing its value.
5. **Interest Rates:** Changes in interest rates affect the present value of the strike price. Generally, higher interest rates increase call option values and decrease put option values.

Option Greeks:

- **Delta (Δ):** Measures how much an option's price is expected to change for a ₹1 change in the underlying asset. Call delta is positive, while put delta is negative.
- **Gamma (Γ):** Measures how much the option's Delta changes when the underlying price changes by ₹1. Higher Gamma means Delta changes more rapidly.
- **Theta (Θ):** Measures the impact of time decay on an option's value. It is generally negative for option buyers, meaning the option loses value as expiry approaches.
- **Vega (v):** Measures how much an option's price changes when the implied volatility of the underlying changes by 1 percentage point. Higher volatility generally increases the value of both calls and puts.
- **Rho (ρ):** Measures the sensitivity of an option's price to a 1 percentage-point change in interest rates. Higher rates generally increase call values and decrease put values.

Option Pricing Models:**Binomial Pricing Model**

- Developed by William Sharpe in 1978.
- It models the underlying asset's price through a binomial tree, where the price can move up or down at each time step.
- It calculates option value iteratively across multiple time periods.
- It is flexible and intuitive, and can handle different types of options effectively.
- However, it can be complex and time-consuming compared with simpler models.

Black-Scholes Model

- Developed by Fisher Black and Myron Scholes in 1973.
- It provides a theoretical option price using a mathematical formula rather than an iterative tree.
- The model considers spot price, strike price, volatility, time to expiry, and risk-free interest rate.
- It is fast, relatively simple, and widely used for pricing options.
- The basic model assumes no dividends during the option's life.

Chapter 17: Strategies Using Equity Futures and Equity OptionsFuture Contracts for Hedging:

- **Long Hedge using Stock Futures:** Used when you expect to buy a stock in the future and fear its price may rise. You take a long position in stock futures so gains in futures can offset the higher purchase price in the cash market.
- **Short Hedge using Stock Futures:** Used when you already own a stock and plan to sell it in the future but fear its price may fall. You take a short position in stock futures so futures gains can offset the loss in the stock's value.
- **Hedging a Portfolio using Index Futures:** Used to protect a diversified portfolio from a broad market decline. The investor shorts index futures against the portfolio, with futures gains helping offset losses in the portfolio.

Future Contracts for Trading/Speculation:

- **Bullish View – Long Futures:** When a trader expects the price of the underlying to rise, they buy (go long) futures. If the price rises, the futures position generates a profit; if it falls, the trader incurs a loss.
- **Bearish View – Short Futures:** When a trader expects the price to fall, they sell (go short) futures. The trader profits if the futures price declines and loses if it rises.
- **Using Futures for Arbitrage:** Traders exploit pricing differences between the cash and futures markets or between different futures contracts. They take offsetting positions to lock in a relatively low-risk profit when the price difference is misaligned.
- **Reverse Cash-and-Carry Arbitrage:** Used when the futures price is below its fair value. The trader sells/shorts the underlying in the cash market and buys futures, intending to profit when the prices converge at expiry.
- **Calendar Spread:** The trader simultaneously takes opposite positions in futures contracts with different expiry dates on the same underlying—for example, long near-month and short far-month futures. The profit/loss depends on how the price difference (spread) between the two expiries changes.

Trading Strategies using Options:

- **Vertical Spreads:** A vertical spread involves buying and selling two options of the same type and expiry but different strike prices. It limits both the potential profit and loss.
- **Bullish Vertical Spread Using Calls:** Buy a lower-strike call and sell a higher-strike call, with the same expiry. It benefits from a rise in the underlying, with limited profit and limited loss.

- **Bullish Vertical Spread Using Puts:** Buy a lower-strike put and sell a higher-strike put, with the same expiry. It can benefit from a moderately bullish view, while limiting the downside risk.
- **Bearish Vertical Spread Using Calls:** Sell a lower-strike call and buy a higher-strike call, with the same expiry. It benefits when the underlying stays below or falls, with both profit and loss limited.
- **Bearish Vertical Spread Using Puts:** Buy a higher-strike put and sell a lower-strike put, with the same expiry. It profits from a decline in the underlying, while keeping the maximum loss limited.
- **Horizontal Spreads:** Also called calendar spreads, these involve buying and selling options with the same strike price but different expiry dates. They are used to benefit from differences in time decay or volatility between expiries.
- **Diagonal Spreads:** A diagonal spread combines options with different strike prices and different expiry dates. It provides greater flexibility and can be structured for bullish or bearish views while benefiting from differences in time decay.
- **Straddles:** A straddle involves using a call and a put with the same strike price and expiry. It is used when expecting a significant price movement but being uncertain about its direction.
- **Long Straddle:** Buy a call and a put at the same strike and expiry. It profits if the underlying makes a sufficiently large move in either direction; the maximum loss is limited to the premiums paid.
- **Short Straddle:** Sell a call and a put at the same strike and expiry. It profits when the underlying remains close to the strike price, but carries potentially very large losses if the underlying moves sharply.
- **Strangles:** A strangle involves buying or selling a call and put with the same expiry but different strike prices. It generally requires a larger price movement than a straddle to become profitable.
- **Long Strangle:** Buy an OTM call and an OTM put with the same expiry. It is suitable when expecting a large move in either direction; the loss is limited to the premiums paid.
- **Short Strangle:** Sell an OTM call and an OTM put with the same expiry. It profits when the underlying stays within a range, but can face substantial losses if there is a sharp move.
- **Covered Call:** Hold the underlying stock and simultaneously sell a call option on it. The premium provides additional income, but the strategy limits the upside if the stock rises significantly.
- **Collar:** Hold the underlying stock, buy a put and sell a call, generally with the same expiry. The put provides downside protection, while the call premium helps reduce the cost of protection, but upside is capped.
- **Butterfly Spread:** A butterfly uses three different strike prices and is typically structured by buying one lower-strike option, selling two middle-strike options, and buying one higher-strike option. It is suited to a view that the underlying will remain near the middle strike, with limited profit and limited loss.

Hedging with Options:

Protective Put: A protective put involves holding the underlying asset and simultaneously buying a put option on it. The put acts like insurance, limiting the downside if the asset price falls, while allowing the investor to participate in upside gains.

Put-Call Parity

Put-call parity is a relationship between the prices of a European call and put having the same strike price and expiry. It helps determine the fair price of one option from the other.

$$\text{Formula: } c + X \times e^{-rt} = p + S_0$$

If the actual market price of an option differs significantly from its theoretical price, an arbitrageur can simultaneously buy and sell the underlying, call and put to lock in a risk-free profit.

However, such arbitrage requires simultaneous execution of multiple trades, so delays or execution risk can make the strategy difficult to implement.

Delta Hedging

Delta hedging is a strategy used to reduce the impact of small changes in the underlying asset's price on an option portfolio. For example, if a trader is short 10 call lots with a delta of 0.50 and lot size of 50, the total delta is -250. To offset this, the trader can take a long position in 5 futures lots, giving a delta of +250. The combined position then has a delta of zero, making it delta-neutral. However, as the underlying price changes, the option's delta also changes. Therefore, the trader must periodically adjust the futures position by buying or selling futures to maintain a near-zero delta. This continuous adjustment is called delta hedging.

Module 3: Interest Rate Derivatives

Chapter 18: Introduction to Interest Rate, Interest Rate Instruments and Fixed Income Market

The interest rate in loans is dependent upon various factors. When the borrower is considered to be low risk by the lender, the borrower will usually be charged a lower interest rate. If the borrower is considered high risk, the interest rate that they are charged will be higher. Factors like inflation, liquidity, duration, central bank policy, price of competing assets, etc., influence the movement and level of general interest rates in the market.

Following are a few macro factors affecting interest rate:

- Demand for Money
- Supply of Money
- Fiscal deficit and government borrowing
- Inflation
- Global Interest rates
- Central Bank Actions

Following are a few micro factors affecting interest rate:

- Maturity / Tenor of the bonds
- Credit Risk
- Seniority of Bonds
- Security of Bonds
- Liquidity of Bonds
- Investor Sentiment

Types of Rates:

- **Effective Rate:** The actual interest rate earned or paid over a period after accounting for the effect of compounding.
- **Nominal Interest Rate:** The stated interest rate on a loan or investment, which does not account for inflation or the effect of compounding.
- **Real Interest Rate:** The interest rate adjusted for inflation, showing the actual increase in purchasing power.

“Fixed Income Securities” are debt instruments that pay a fixed amount of interest - in the form of coupon payments - to investors

- **Issue Price:** The price at which a bond is initially offered to investors.
- **Face Value (FV):** The principal amount of the bond on which the coupon is calculated and typically repaid at maturity.
- **Coupon / Interest:** The periodic interest payment made by the bond issuer to the investor.
- **Coupon Rate:** The annual coupon payment expressed as a percentage of the bond's face value.
- **Coupon Frequency:** The frequency at which coupon payments are made, such as monthly, quarterly, semi-annually or annually.
- **Interest Payment Date:** The date on which the issuer pays the scheduled coupon/interest to the bondholder.

- **Maturity Date:** The date on which the bond expires and the principal is repaid to the investor.
- **Call / Put Option Date:** The date from which the issuer (call) or investor (put) can exercise the right to redeem the bond before maturity.
- **Maturity / Redemption Value:** The amount of principal paid by the issuer when the bond is redeemed, which may be at par, premium or discount.

A bond is a financial security issued to raise funds, where the issuer promises to repay the principal at maturity along with periodic interest (coupon). Unlike a loan, bonds are generally tradable and can change hands before maturity. Their market value fluctuates based on changes in interest rates and the issuer's creditworthiness. Bonds can be classified based on various characteristics and criteria:

- Based on issuers
- Based on maturity
- Based on coupon
- Based on currencies
- Based on embedded options
- Based on Security
- Based on priority of claims
- Based on purpose of issue
- Based on underlying
- Based on taxation

Absolutely. Here is the same content in pointer format, while retaining the original classification structure and keeping the explanations concise.

Classification based on Type of Issuer

- **Government / Sovereign / Gilt Bonds:** Issued by Central or State Governments to raise funds. They are generally considered lower-risk and therefore offer relatively lower yields. State Government securities are known as SDLs.
- **Municipal Bonds:** Issued by municipal or local authorities to finance infrastructure and public projects such as roads, parks and libraries.
- **Corporate Bonds / NCDs:** Issued by companies to raise capital. They carry higher credit risk than government bonds and therefore generally offer higher yields. Credit ratings indicate the issuer's ability to repay.
- **Securitized Debt:** Illiquid loans or receivables are pooled and transferred to an SPV, which issues tradable securities backed by these underlying assets.

Classification based on Maturity / Redemption

- **Overnight Debt:** Borrowings, typically by banks, for one day. These may be secured or unsecured.
- **Ultra-Short-Term Debt:** Debt with maturity up to 1 year. Common instruments include Commercial Papers (CPs), Certificates of Deposit (CDs), Treasury Bills (T-Bills) and Cash Management Bills (CMBs).
- **Short-Term Debt:** Bonds generally having maturity between 1 and 5 years.
- **Medium-Term Debt:** Bonds generally having maturity between 5 and 12 years.
- **Long-Term Debt:** Bonds having maturity beyond 12 years. Government bonds are commonly issued in this category.
- **Staggered Maturities:** A bond issue where different portions mature at different dates, allowing the issuer to repay the debt gradually instead of making one large repayment.
- **Perpetual Bonds:** Bonds with no fixed maturity date that continue to pay coupons. Banks commonly issue them to meet regulatory capital requirements.

Classification based on Coupon

- **Plain Vanilla Bonds:** Basic bonds with a fixed coupon and defined maturity, generally issued and redeemed at face value.

- **Zero-Coupon Bonds:** Do not pay periodic interest. They are issued at a discount and redeemed at face value, with the difference representing the investor's return.
- **Floating Rate Bonds (FRBs):** Coupon is linked to a benchmark interest rate and is periodically reset based on changes in that benchmark.
- **Caps and Floors:** A cap limits how high the coupon can rise, while a floor limits how low it can fall. A bond having both is called a Collar.
- **Inverse Floaters:** Coupon moves inversely to the benchmark rate. When the benchmark rate rises, the coupon falls, and vice versa.
- **Inflation-Indexed Bonds:** Coupon and/or principal is linked to an inflation index such as CPI, helping protect investors against inflation.
- **Step-Up Bonds:** Pay a lower coupon initially, with the coupon increasing over time, usually towards maturity.
- **Step-Down Bonds:** Pay a higher coupon initially, with the coupon decreasing over time towards maturity.
- **Deferred Coupon Bonds:** Do not pay interest during the initial years but provide higher interest payments later, usually before maturity.
- **Deep Discount Bonds:** Zero-coupon bonds issued at a significant discount to face value, generally with longer maturities.

Classification based on Embedded Options

- **Straight Bonds:** Pay predetermined coupons periodically and return the principal at maturity. Also known as plain vanilla or bullet bonds.
- **Bond with Call Option:** Gives the issuer the right to redeem the bond before maturity, generally when market interest rates fall.
- **Bond with Put Option:** Gives the investor the right to redeem the bond before maturity, generally when market interest rates rise.
- **Bond with Call & Put Option:** Gives both the issuer and investor the right to redeem the bond before its original maturity date.

Classification based on Security

- **Secured Debt:** Backed by specific assets of the issuer. These assets provide investors with a higher recovery priority in case of default.
- **Unsecured Debt:** Not backed by specific collateral. Repayment depends primarily on the issuer's creditworthiness.
- **Credit-Enhanced Bonds:** Have additional support such as guarantees, insurance or collateral to improve credit quality and reduce the risk to investors.

Classification based on Seniority

- **Senior Debt:** Has higher priority for repayment during bankruptcy or liquidation. Because of lower risk, it generally carries lower interest rates.
- **Subordinated / Junior Debt:** Has lower repayment priority than senior debt and therefore carries higher risk and typically offers higher coupons.

Other Instruments

- **Annuities:** Financial products that provide regular payments over a specified period. Unlike bonds, they are generally not traded in the secondary market.
- **AT1 Bonds:** Perpetual, unsecured and non-convertible bank bonds that qualify as Additional Tier-1 capital under Basel III, subject to regulatory conditions.
- **AT2 / Tier-2 Bonds:** Subordinated bank debt used to meet Tier-2 capital requirements. They have lower repayment priority than senior bank debt.
- **Convertible Bonds:** Bonds that can be converted into equity shares at predetermined terms, providing investors with both debt and potential equity exposure.
- **REITs:** SEBI-registered trusts that invest in income-generating real estate and distribute the resulting cash flows to investors.

- **InvITs:** SEBI-registered trusts that invest in infrastructure assets and distribute the resulting cash flows to investors.
- **Green Bonds:** Bonds issued specifically to finance environmentally beneficial or climate-related projects.
- **Tax-Free Bonds:** Bonds where the interest income is exempt from tax under applicable tax provisions.
- **Tax-Saving Bonds:** Bonds that provide specified tax benefits to investors, generally subject to a minimum lock-in period. Interest earned is usually taxable.
- **Asset-Linked Bonds:** Bonds whose repayment or credit protection is linked to the performance or value of specified underlying assets.
- **ESG Debt Securities:** Debt instruments linked to environmental, social or sustainability objectives, including green, social, sustainability and sustainability-linked bonds.
- **Masala Bonds:** Rupee-denominated bonds issued outside India by Indian entities to raise funds from international investors.

Advantages of Debt	Disadvantages of Debt
Provides long-term capital without diluting ownership or control.	Creates mandatory interest and principal repayment obligations.
Debt holders have priority over equity holders in case of bankruptcy.	Increases liquidity and refinancing risk, especially during weak market conditions.
Interest and principal payments are generally predictable, aiding cash-flow planning.	Excessive debt increases leverage and the risk of financial distress or default.
Interest is generally tax-deductible, reducing the effective cost of borrowing.	Debt agreements may impose operational or financial restrictions.
Can often be raised efficiently through private placements.	Secured debt may require collateral or creation of liens on company assets.
Generally cheaper than equity over the long term.	High debt levels can strain working capital and limit future borrowing capacity.

Concept of Risk-Free Interest Rate

A fixed-income security has fixed timing of cash flows, but it does not necessarily provide a fixed return. The actual return can be affected by several risks:

- **Credit Risk:** The issuer may fail to pay interest or repay the principal as promised.
- **Interest Rate / Price Risk:** If the bond is sold before maturity, its market price may be higher or lower than the purchase price due to changes in interest rates, resulting in a capital gain or loss.
- **Reinvestment Risk:** Interim coupon payments may need to be reinvested at uncertain future interest rates, affecting the overall return.
- **Other Risks:** Debt securities may also face liquidity risk, call risk and inflation risk.

Key takeaway: A fixed coupon does not mean a fixed or guaranteed return. A truly risk-free rate is therefore used as a benchmark for valuing investments and measuring risk premiums.

Term Structure of Interest Rates

- **Normal Yield Curve:** Long-term interest rates are higher than short-term rates, resulting in an upward-sloping curve. It generally reflects expectations of economic growth and higher future rates.
- **Inverted Yield Curve:** Short-term interest rates are higher than long-term rates, creating a downward-sloping curve. It is often associated with expectations of slower economic growth or falling interest rates.
- **Flat Yield Curve:** Short- and long-term interest rates are relatively similar, resulting in a nearly horizontal curve. It often indicates uncertainty about the future direction of interest rates.
- **Humped Yield Curve:** Medium-term interest rates are higher than both short- and long-term rates, creating a hump-shaped curve. It can indicate expectations of changing interest rates over different time horizons.

Simple interest is basically an interest rate without any reinvestment option. When interest is accrued for more than one period, it becomes necessary to distinguish between simple interest (SI) and compound interest (CI).

Day count fraction specifies how to convert the payment period into year fraction (e.g. 6M = 0.5Y). For this conversion, we must agree on counting the number of days in a year and in the interest accrual period. It is expressed as a fraction.

Accrued Interest

- **Clean Price:** The quoted/negotiated price of a bond in the secondary market, excluding accrued interest.
- **Accrued Interest:** Interest accumulated from the last coupon payment date up to the bond's settlement date.
- **Dirty Price / Invoice Price:** The actual settlement price paid by the buyer, including accrued interest.

Formula: Dirty Price = Clean Price + Accrued Interest

Return to Bond Investors

- **Coupon Income:** The regular interest payment received by a bondholder from the issuer during the life of the bond.
- **Capital Appreciation:** The gain or loss arising from changes in the bond's market price due to movements in interest rates, if sold before maturity.
- **Reinvestment Income:** The income earned by reinvesting coupon payments at prevailing market interest rates until the investment horizon.

Yield Measures

- **Current Yield:** Annual coupon income as a percentage of the bond's current market price. It measures the income return from holding the bond, excluding capital gains/losses.
- **YTM (Yield to Maturity):** The annualized return an investor would earn if the bond is held until maturity, assuming all coupons are paid and reinvested at the YTM.
- **Yield for Money Market:** A yield measure used for short-term instruments, typically annualized based on the actual number of days to maturity and a 360-day or 365-day convention.
- **Effective Yield:** The actual annualized return after considering the effect of compounding, particularly when interest/coupons are paid more than once a year.

Bond Valuation Methodologies

- **Valuing a Coupon-Paying Bond:** The bond price is the present value of all future coupon payments plus the present value of the principal repayment at maturity. Cash flows are discounted using the prevailing market yield.
- **Valuing Bonds with Maturity Less Than One Year:** For short-term instruments such as Treasury Bills, the value is calculated by discounting the face value for the remaining days to maturity using the applicable annualized yield.
- **Valuing Zero-Coupon Bonds:** Since there are no interim coupon payments, the bond is valued by discounting its face value back to the present using the applicable yield and time to maturity.
- **Valuing Bonds at Non-Coupon Dates:** When a bond is traded between coupon dates, its Dirty Price = Clean Price + Accrued Interest. The bond is first valued using the relevant yield and maturity, then accrued interest is accounted for to arrive at the clean/traded price.

Spot Rate, Bond Price & YTM

- **Spot Rate (Zero Rate):** The return applicable to a single cash flow received at a specific future date. It captures the effect of discount/premium, capital gain/loss and reinvestment.
- **Bond Pricing using Spot Rates:** A bond consists of multiple cash flows occurring at different dates. Each cash flow is discounted using the spot rate corresponding to its maturity, and the sum gives the bond's fair price.
- **Multiple Returns:** Unlike YTM, a coupon bond does not have one single true return when valued using spot rates. Each cash flow has its own relevant spot rate based on its maturity.

- **Key Insight:** Bond prices are determined by the term structure of zero/spot rates. Changes in the underlying interest-rate structure therefore directly affect bond prices.

Price–Yield Relationship

1. **Inverse & Non-linear:** Bond prices and yields move in opposite directions. The relationship is non-linear, meaning the price change is not uniform for equal changes in yield.
2. **Maturity:** Keeping coupon and initial price constant, longer-maturity bonds have higher price volatility, while shorter-maturity bonds are less sensitive to yield changes.
3. **Coupon:** For the same maturity and initial price, lower-coupon bonds have higher price volatility, while higher-coupon bonds are less sensitive to yield changes.
4. **YTM:** For similar coupon and maturity, a higher-YTM bond has lower price volatility than a lower-YTM bond.

Macaulay Duration & Related Measures

- **Macaulay Duration:** Measures the weighted average time to receive a bond's cash flows and indicates its sensitivity to interest rates.
- **Key Duration Relationships:**
 - Higher coupon → Lower duration
 - Higher YTM → Lower duration
 - Longer maturity → Higher duration
 - Zero-coupon bond → Duration = Maturity
 - Coupon-paying bond → Duration < Maturity
- **Modified Duration:** Adjusts Macaulay duration to estimate the percentage change in a bond's price for a change in yield. $\% \text{ Change in Price} \approx -\text{Modified Duration} \times \text{Change in Yield}$. It is reasonably accurate for small yield changes.
- **PV01 / PVBP:** Measures the change in a bond's price in currency terms for a 1 basis-point (0.01%) change in yield.

$$\text{PV01} = \text{Dirty Price} \times \text{Modified Duration} / 10,000.$$
- **Convexity:** Improves the duration-based price estimate for larger changes in interest rates because the price-yield relationship is curved rather than linear. $\% \text{ Change in Price} \approx \text{Duration Effect} + \text{Convexity Effect}$.
- **Impact of Positive Convexity:** For an equal-sized rise and fall in yields, the price gain from a yield fall is generally greater than the price loss from an equivalent yield rise.

Role of the Debt Market

The financial market consists of underlying, derivative and structured finance markets. The underlying market includes money, bonds, equity and forex. Money and bond markets together form the fixed-income market, while debt and equity markets together form the capital market. The debt market facilitates borrowing and lending through instruments such as bonds, debentures and money-market securities. For companies, debt provides long-term financing without diluting ownership, but excessive borrowing increases financial and default risk. Governments also use debt to fund expenditure and infrastructure.

Importance of Debt Markets

A well-developed debt market enables governments and corporates to raise funds efficiently and at competitive costs. It improves price discovery, distributes credit risk among a wider investor base and reduces dependence on bank financing. The debt market also helps banks manage their assets and liabilities and provides investment opportunities for mutual funds, pension funds, insurance companies and retail investors. The primary market enables issuers to raise funds, while the secondary market provides liquidity and price discovery to investors.

A functioning debt market requires strong regulation, credit-rating systems, intermediaries, liquidity and an effective legal and bankruptcy framework. Smaller companies may prefer bank borrowing because issuing bonds can involve significant regulatory and transaction costs.

Primary and Secondary Debt Market in India

The Indian debt market consists mainly of Government debt, PSU/bank debt and private corporate debt. Key participants are:

- Issuers: Government, banks, PSUs and private companies.
- Intermediaries: Investment banks, merchant bankers, brokers and primary dealers.
- Investors: Banks, mutual funds, insurance companies, pension funds, corporates, HNIs and retail investors.
- Regulators: RBI and SEBI.

Major segments include the Government Securities (G-Sec) market, Corporate Bond market and Money Market. Instruments include Treasury Bills, dated G-Secs, SDLs, PSU bonds, corporate bonds, NCDs, Commercial Papers, CDs, Floating Rate Bonds and Zero-Coupon Bonds.

Primary & Secondary Market for Government Securities

The primary market is where the Government initially issues securities, while the secondary market allows investors to trade these securities after issuance. RBI manages Government securities issuance on behalf of the Government, primarily through auctions. Government securities are generally issued through price-based or yield-based auctions, which may follow uniform-price or multiple-price mechanisms.

- **Competitive Bidding:** Institutional investors bid at specific prices/yields and receive allotment based on the auction cut-off.
- **Non-Competitive Bidding:** Designed mainly for smaller and retail investors, who do not specify a price/yield and receive securities at the weighted average price/yield of accepted competitive bids.

The secondary G-Sec market operates through platforms such as NDS-OM, OTC/telephone markets, stock exchanges and RBI Retail Direct. These platforms provide liquidity, transparency and price discovery, while enabling investors to buy and sell Government securities after issuance.

Conversion (Switch) of G-Secs

RBI conducts auctions where investors sell an existing ("source") G-Sec to the Government and simultaneously buy another ("destination") G-Sec. Bids are submitted through RBI's e-Kuber platform, with prices specified for both securities.

Open Market Operations (OMOs)

RBI buys or sells G-Secs in the market to manage systemic liquidity.

- RBI sells G-Secs → absorbs liquidity
- RBI buys G-Secs → injects liquidity

Repurchase / Buyback of G-Secs

The Government buys back existing securities before maturity to reduce interest costs, improve market liquidity, reduce outstanding securities or manage cash balances. Buybacks can be conducted through auctions or the secondary market (NDS-OM).

Government Securities Lending (GSL)

GSL allows eligible market participants to lend and borrow G-Secs for a specified period against other G-Secs as collateral, for a fee. It facilitates short selling and improves liquidity and market efficiency.

Holding of G-Secs G-Secs can be held in physical or dematerialised form, although RBI-regulated entities are required to hold them electronically. The RBI's Public Debt Office (PDO) acts as the registry and central depository.

- **Physical Form:** G-Secs are held through stock certificates registered with the PDO. Transfers require formal registration with the PDO.
- **SGL Account:** Eligible institutions such as banks and primary dealers can directly hold G-Secs electronically through an RBI-maintained SGL account.

- **Gilt Account:** Other investors can hold G-Secs electronically through a bank or primary dealer that maintains a CSDL account with RBI. This provides convenient electronic holding, trading and receipt of interest/maturity proceeds.

Primary and Secondary Market of Corporate Bonds / NCDs

- **Public Issue:** A public issue involves offering debt securities to the general public through a prospectus. Publicly issued debt securities must be listed on recognised stock exchanges and comply with SEBI's disclosure and listing requirements.
- **Private Placement:** Private placement involves issuing debt securities to a selected group of investors, mainly institutional investors. It offers greater flexibility in structuring the issue and is the dominant method of corporate bond issuance in India. The terms and details are provided through a Placement Memorandum.
- **Electronic Book Provider (EBP):** SEBI requires specified large private placements to be conducted through an Electronic Book Provider (EBP) for transparent price discovery. EBP is mandatory for private placements of ₹20 crore or more, including cumulative/shelf issues meeting the threshold.
- **EBP Bidding Process:** Issuers provide the placement memorandum and term sheet before bidding, specifying the bidding, allotment and settlement process. Investors submit bids electronically, and successful bids are determined according to SEBI guidelines. Bidding may be open or closed, with details disclosed accordingly.
- **Anchor Investors:** Issuers may allocate an anchor portion of the base issue to selected investors before the wider allocation. The permitted anchor portion depends on the instrument's rating and is subject to specified limits and disclosure requirements.
- **Secondary Market for Corporate Bonds:** Unlike G-Secs, corporate bonds in India are predominantly traded over-the-counter (OTC) and the market is largely institutional. Trades must be reported within 15 minutes, with settlement generally occurring between T+0 and T+2.
- **Request for Quote (RFQ) Platform:** The RFQ platform enables investors to seek and negotiate quotes electronically while maintaining an audit trail of prices, yields and transaction terms. It improves pre-trade transparency, price discovery and efficiency in corporate bond trading.
- **Regulatory Requirements for RFQ:** SEBI has progressively increased the use of RFQ platforms for corporate bond transactions. Stock brokers, FPIs, mutual funds, AIFs and PMS entities are required to execute specified portions of their corporate bond trades through RFQ.
- **Order Matching Platform:** Stock exchanges also provide an order-matching platform, similar to equity markets, where buyers and sellers can place orders electronically for corporate bonds.
- **Online Bond Platform Providers (OBPPs):** OBPPs are electronic platforms that allow investors, particularly non-institutional investors, to access and transact in listed or proposed-to-be-listed debt securities. They provide an additional channel for investors to participate in the corporate bond market.

Money Market Terminologies/Instruments

- **Call Money:** Very short-term borrowing/lending of funds, typically overnight, without collateral.
- **Notice Money:** Unsecured borrowing/lending for more than 1 day and up to 14 days.
- **Term Money:** Unsecured borrowing/lending for a period of more than 14 days and up to 1 year.
- **Market Repo:** Collateralised short-term borrowing where securities are sold with an agreement to repurchase them at a specified future date and price.
- **Triparty Repo:** A repo where a third-party agent manages collateral, including its selection, custody, valuation and settlement, reducing operational risk.
- **T-Bills (Treasury Bills):** Short-term Government securities issued at a discount and redeemed at face value. They typically have maturities of 91, 182 and 364 days and are considered low-credit-risk instruments.
- **Cash Management Bills (CMBs):** Short-term Government securities issued to meet temporary cash-flow mismatches. They have maturities of less than 91 days and are issued at a discount.
- **Commercial Paper (CP):** Unsecured short-term money-market instrument issued by companies and other eligible entities to raise working-capital funds. It is generally issued at a discount and redeemed at face value.

- **Certificate of Deposit (CD):** Negotiable money-market instrument issued by banks and eligible financial institutions to raise short-term funds. CDs are generally issued at a discount or with a fixed coupon and have a specified maturity.
- **Repo in Corporate Bonds / Corporate Debt Securities:** A transaction where one party sells eligible corporate debt securities and agrees to repurchase them later at a predetermined price. It provides short-term funding against corporate debt securities as collateral.
- **Exchange-Traded Tri-Party Repo:** A repo transaction conducted on a stock exchange using a tri-party arrangement, where a third-party agent manages collateral, settlement and other operational requirements. It facilitates secured short-term borrowing and lending with greater transparency.
- **Call Money:** Unsecured overnight borrowing and lending of funds, mainly among banks and other eligible financial institutions. It is used primarily to manage very short-term liquidity needs.
- **Notice Money:** Unsecured borrowing and lending for periods exceeding one day and up to 14 days. It helps financial institutions manage short-term liquidity mismatches.
- **Term Money:** Unsecured borrowing and lending for periods exceeding 14 days and up to one year. It is used to meet relatively longer-term short-term funding requirements.
- **Market Repo:** A secured short-term borrowing arrangement where securities are sold with an agreement to repurchase them at a future date. The securities serve as collateral, reducing the lender's credit risk.
- **Tri-Party Repo:** A repo where a third-party agent facilitates the transaction by managing collateral, settlement and other operational processes between the borrower and lender. It improves efficiency and reduces counterparty and operational risks.

Role of Regulators

- RBI regulates the money market and G-Sec market and manages borrowing by the Central and State Governments.
- SEBI regulates the corporate bond market, particularly debt securities with maturity over one year.
- Both regulators set disclosure, trading, settlement and governance standards to ensure a transparent, efficient and well-functioning debt market.

Role of Credit Rating Agencies

- Credit Rating Agencies (CRAs) assess the creditworthiness and default risk of debt issuers and instruments.
- They provide an independent, standardized assessment using ratings such as AAA (highest safety) to D (default).
- Ratings help investors evaluate credit risk and pricing before investing, and CRAs are regulated by SEBI.

Chapter 19: Interest Rate Derivatives

A significant portion of the material on derivative basics, including types of derivative contracts and their uses, has already been covered in earlier chapters. Therefore, the repeated content has been omitted from this summary.

Bond Forward

- An OTC derivative where a Government Security is bought/sold on a future date at a price fixed today.
- Only G-Secs can be the underlying; eligible residents and certain non-residents can participate.
- Can be physically settled or cash settled, with settlement through approved clearing arrangements.

Forward Rate Agreement (FRA) is an interest rate derivative contract that involves exchange of interest payments on a notional principal amount, on a future date, at agreed rates, for a defined forward period.

Interest Rate Futures (IRF) are standardized interest rate derivative contracts traded on a recognized stock exchange to buy or sell a notional security or any other interest-bearing instrument or an index of such instruments or interest rates at a specified future date, at a price determined at the time of the contract. Interest Rate Futures also include money market Futures.

Interest Rate Options

- Interest Rate Option (IRO) is an option contract whose value is based on interest rates or interest rate instruments. IRO traded in OTC as well as Exchange Traded market.
- An Interest Rate Cap is a series of interest rate call options (called caplets) in which the buyer of the option receives a payment at the end of each period when the underlying interest rate is above a rate agreed in advance (strike rate).
- An Interest Rate Floor is a series of interest rate put options in which the buyer of the option receives a payment at the end of each period when the underlying interest rate is below the strike rate.
- An Interest Rate Collar is a derivative contract where a market participant simultaneously purchases an interest rate cap and sells an interest rate floor on the same interest rate for the same maturity and notional principal amount.
- A Reverse Interest Rate Collar is a derivative contract which involves simultaneous purchase of an interest rate floor and sale of an interest rate cap on the same interest rate for the same maturity and notional principal amount

Interest Rate Swap

Interest rate swap is a derivative contract that involves exchange of a stream of agreed interest payments on a 'notional principal' amount during a specified period. Such contracts generally involve exchange of a 'fixed to floating' or 'floating to floating' rates of interest. On each payment date that occurs during the swap period cash payments based on fixed/ floating and floating rates, are made by the parties to one another.

A swaption is an option on swaps. A swaption gives the buyer the right, but not the obligation, to enter into swap. Interest rate swaptions are more popular in the financial market. An Interest Rate 503 Swaption is an option on interest rate swaps.

Market Participants in Interest Rate Derivatives

- **Hedgers:** Use interest rate derivatives to reduce or manage interest rate risk arising from loans, bonds or other interest-bearing assets.
- **Speculators/Traders:** Take positions based on their view of future interest rate movements, using derivatives for leverage and efficient trading.
- **Arbitragers:** Exploit price differences across markets or instruments to earn relatively low-risk profits, helping bring prices back in line.

Chapter 20: Exchange Traded Interest Rate Futures

Interest Rate Futures (IRF) are standardized interest rate derivative contracts traded on a recognized stock exchange to buy or sell a notional security or any other interest-bearing instrument or an index of such instruments or interest rates at a specified future date, at a price determined at the time of the contract. Interest Rate Futures include money market futures also.

Corporate Bond Index Futures (CBIF)

- **Underlying:** Cash-settled futures on indices of AA+ and above corporate bonds, with at least 8 issuers, max 15% per issuer and 25% per sector/group.
- **Contract:** Minimum value of ₹2 lakh, with contracts available for up to 3 years.
- **Trading:** 9 AM–5 PM, Monday–Friday; expiry is generally the last Thursday of the expiry cycle.
- **Settlement:** Cash-settled in INR. Daily settlement uses the last 30-minute VWAP, while final settlement uses the underlying index's closing price.
- **Settlement date:** MTM and final settlement take place on the next working day.

Some other examples of interest rate derivatives are:

- 91 Day T-Bill Futures
- Overnight MIBOR Futures

Rationale for Exchange-Traded Interest Rate Derivatives

- Interest rate risk affects banks, corporates, insurers, households and other investors, creating a need for effective hedging tools.
- Exchange-traded IR derivatives provide wider access, transparency, liquidity and lower counterparty/settlement risk compared with OTC products.
- They help improve financial market efficiency and stability by providing a credible hedge against interest rate risk, particularly in G-Secs.

Futures vs FRA / Forward Contracts

- Futures are standardized, exchange-traded contracts offering liquidity, transparency and lower counterparty risk, while forwards/FRAs are OTC and can be customized.
- An FRA is a bilateral cash-settled contract based mainly on a benchmark interest rate, with gains/losses based on the difference between the agreed and actual rate.
- Interest rate futures can be based on interest rates, bonds or bond indices; the long/short position depends on whether the underlying is a rate or a bond/index.

Important Concepts

- **Forward Rate:** The forward rate is the interest rate agreed today for borrowing or lending money at a future date. It reflects the market's current expectation of future interest rates.
- **Financing Cost / Cost of Carry:** Cost of carry is the financing cost incurred for holding the underlying asset until the futures contract expires. For bonds, it is mainly the interest/financing cost of purchasing and holding the bond.
- **Income on Cash Position:** This refers to the income earned from holding the underlying asset during the futures period, such as coupon interest on a bond. This income reduces the effective cost of carrying the asset.
- **Basis:** Basis is the difference between the cash/spot price and futures price of an asset. As expiry approaches, the basis generally narrows and converges to zero.
- **Computation of Price for Bond Futures:** Bond futures pricing is based on the spot price of the underlying bond adjusted for financing cost and income earned during the holding period. The resulting theoretical futures price reflects the cost of carrying the bond to expiry.
- **Expectancy Model of Futures Pricing:** The expectancy model suggests that the futures price reflects the market's expectation of the future spot price of the underlying asset. It is therefore influenced by expected interest rates, demand-supply and market expectations.
- **Price Discovery and Convergence of Cash & Futures Prices at Expiry:** Futures markets facilitate price discovery by incorporating market expectations into prices. As expiry approaches, cash and futures prices converge, and on expiry the futures price equals the spot price of the underlying.

Chapter 21: Exchange Traded Interest Rate Options**Historical Volatility**

Measures volatility based on past price movements of a stock, index, bond or currency. It is relatively easy to calculate and can be used as an input for option pricing.

Forecasted Volatility

Refers to the expected future volatility of an asset over a specific period. Statistical and econometric models can be used to estimate it.

Implied Volatility (IV)

Represents the market's expectation of future volatility, derived from the current option price/premium. It reflects the market consensus on the likely price movement of the underlying during the option's remaining life.

A significant portion of the material on derivative basics, including types of derivative contracts and their uses, has already been covered in earlier chapters. Therefore, the repeated content has been omitted from this summary.

Chapter 22: Strategies Using Exchange Traded Derivatives

Market Participants

- Hedgers
- Arbitragers
- Speculators

Hedging through Exchange-Traded Interest Rate Derivatives

Hedging Parameters

Before hedging, three key decisions need to be made: instrument, market size/position to be hedged, and contract month. These determine the appropriate futures position for the exposure.

Short Hedge

A short hedge involves selling interest rate futures to protect against a fall in the price of a bond or fixed-income security. It is useful when the investor already owns bonds and is concerned about rising interest rates causing bond prices to fall.

Portfolio-Based Hedging

When a portfolio contains multiple bonds, the entire portfolio can be hedged using a single suitable interest rate futures contract. The hedge ratio is determined using the portfolio's modified duration and market value relative to the futures contract's duration and price.

Hedging Future Borrowing

A borrower expecting to raise funds in the future can use a short futures position to protect against rising interest rates. For example, a company planning to issue bonds in one month can sell IRFs today to offset the potential increase in its future borrowing cost.

Long Hedge

A long hedge involves buying interest rate futures when an investor plans to purchase bonds in the future and is concerned that interest rates may fall. Falling rates increase bond prices, so the futures position helps lock in the future purchase price/rate.

Option Trading Strategies

Option Spreads involve combining options on the same underlying and of same type (call/ put) but with different strikes and maturities. These are limited profit and limited loss positions. They are primarily categorized into three sections as:

- Vertical Spreads
- Horizontal Spreads
- Diagonal Spreads

Vertical Spreads Vertical spreads are created by using options having same expiry but different strike prices. Further, these can be created either using calls as combination or puts as combination. These can be further classified as:

- **Bullish Vertical Spread**
 - Using Calls
 - Using Puts
- **Bearish Vertical Spread**
 - Using Calls
 - Using Puts

Other strategies (**Also covered before**) include: Bullish Vertical Spread using Calls, Bullish Vertical Spread using Puts, Bearish Vertical Spread using Calls, Bearish Vertical Spread using Puts, Horizontal Spread, Diagonal Spread, Straddle – Long & Short, Strangle – Long & Short, Covered Call, Protective put, Butterfly Spread.

Other Speculative Strategies

- **Long Position in Bond:** When a trader expects interest rates to fall and bond prices to rise, they can buy the bond or take a long position in bond futures. Futures provide a leveraged way to benefit from the expected price increase.
- **Short Position in Bond:** When a trader expects interest rates to rise and bond prices to fall, they can sell bond futures or buy bond put options. This is particularly useful where direct short-selling of government securities is restricted.
- **Changing Portfolio Duration:** Fund managers can adjust portfolio duration based on their interest-rate view. They may increase duration when expecting rates to fall and reduce duration when expecting rates to rise, subject to their portfolio objectives.
- **Calendar Spread:** A calendar spread involves buying one maturity contract and selling another maturity contract on the same underlying. Since the underlying exposure largely offsets, the main risk is the change in the spread between the two maturities, resulting in lower margin requirements.

Arbitrage Strategies

- **Regular Arbitrage with Single Bond Futures:** The arbitrageur buys the bond in the cash market and sells its futures when the futures price is higher than its theoretical fair value. The price difference can be locked in to generate an arbitrage profit, without taking a directional market view.
- **Creating Synthetic Securities:** A combination of a long bond position and short bond futures can synthetically create a shorter-term risk-free investment. For example, a long 15-year GOI bond combined with a short 3-month future can effectively create a synthetic 3-month security.
- **Yield Enhancement through Synthetic Securities:** If the yield on the synthetic short-term security is higher than the equivalent cash-market security, an investor can use the strategy to earn an enhanced yield. The futures position locks in the future sale price of the bond.
- **Spread Trading:** Spread trading involves taking opposite positions in two related futures or options contracts to profit from changes in their price differential (spread). The strategy focuses on the relative movement between contracts rather than the overall market direction.

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