

Unit 2 – Capital Market Risk Management

1. Equity Markets

The equity market, also known as the stock market, is a marketplace where shares of publicly traded companies are bought and sold. It plays a crucial role in the economy by allowing companies to raise capital and investors to own a part of these companies and potentially earn returns.

Key Concepts of the Equity Market

1. Shares and Stocks:

- Shares: Units of ownership in a company. When you buy shares, you own a part of the company.
- Stocks: General term used to describe ownership in one or more companies. It can refer to shares of a single company or multiple companies.

2. Stock Exchanges:

- Definition: Platforms where stocks are listed and traded. Examples include the New York Stock Exchange (NYSE), NASDAQ, and the Bombay Stock Exchange (BSE) & National Stock Exchange (NSE) in India.
- Function: Facilitate the buying and selling of stocks, ensure transparency, and provide a regulated environment for trading.

3. Primary Market:

- Definition: Market where new securities are issued and sold for the first time. Companies raise capital by issuing new shares through Initial Public Offerings (IPOs).
- Process: Investors buy shares directly from the issuing company.

4. Secondary Market:

- Definition: Market where existing shares are traded among investors. This is where most stock trading occurs.
- Function: Provides liquidity, enabling investors to buy and sell shares freely.

5. Indices:

- Definition: Indicators that track the performance of a group of stocks. Examples include the S&P 500, Dow Jones Industrial Average (DJIA), and NIFTY 50.
- Purpose: Serve as benchmarks for the performance of the stock market or specific sectors.

Participants in the Equity Market

1. Retail Investors:
 - Individual investors who buy and sell stocks for their personal accounts.
2. Institutional Investors:
 - Entities like mutual funds, pension funds, insurance companies, and hedge funds that trade large volumes of stocks.
3. Market Makers:
 - Firms or individuals that provide liquidity by buying and selling stocks at publicly quoted prices.
4. Brokers:
 - Intermediaries who execute buy and sell orders on behalf of investors.

Types of Stocks

1. Common Stock:
 - Represents ownership in a company and entitles the holder to vote at shareholder meetings and receive dividends.
2. Preferred Stock:
 - Generally, does not provide voting rights but offers a fixed dividend and has priority over common stock in the event of liquidation.

Key Metrics and Ratios

1. Earnings Per Share (EPS):
 - Definition: Measures a company's profitability by dividing net income by the number of outstanding shares.
2. Price-to-Earnings (P/E) Ratio:
 - Definition: Compares a company's share price to its earnings per share. A higher P/E indicates higher market expectations for future growth.
3. Dividend Yield:
 - Definition: Measures the dividend income relative to the share price, calculated as dividends per share divided by the share price.

Investment Strategies

1. Long-Term Investing:
 - Approach: Buy and hold stocks for an extended period to benefit from long-term growth and compounding returns.
2. Short-Term Trading:

- Approach: Buy and sell stocks within a short timeframe to capitalize on market fluctuations.
3. Value Investing:
 - Approach: Identify undervalued stocks with strong fundamentals and hold them until their market price reflects their intrinsic value.
 4. Growth Investing:
 - Approach: Focus on companies with high growth potential, even if their current valuations are high.
 5. Dividend Investing:
 - Approach: Invest in companies that pay regular dividends to generate a steady income stream.

Risks in the Equity Market

1. Market Risk:
 - The risk of losses due to overall market fluctuations.
2. Company-Specific Risk:
 - The risk of losses due to adverse events affecting a particular company.
3. Liquidity Risk:
 - The risk that an investor may not be able to buy or sell stocks quickly without affecting their price.
4. Economic Risk:
 - The risk of losses due to macroeconomic factors like recessions, inflation, or changes in interest rates.
5. Regulatory Risk:
 - The risk of changes in laws and regulations that could affect stock prices.

2. Currency Markets

The currency market, also known as the foreign exchange market (forex or FX), is the global marketplace for buying, selling, and exchanging currencies. It is the largest and most liquid financial market in the world, operating 24 hours a day, five days a week. Here's a comprehensive overview of the currency market:

Key Features of the Currency Market

1. Global Scope:
 - Operates globally with major trading centers in London, New York, Tokyo, Hong Kong, and Sydney.

2. High Liquidity:
 - The forex market has an average daily trading volume exceeding \$6 trillion, providing high liquidity and the ability to execute large transactions quickly.
3. 24-Hour Trading:
 - The market operates around the clock from Monday to Friday, allowing for continuous trading across different time zones.
4. Decentralized Market:
 - Unlike centralized exchanges, the forex market is decentralized and operates through a network of banks, brokers, and financial institutions.

Major Participants

1. Commercial Banks:
 - Major banks engage in forex trading for their own accounts and to facilitate transactions for their clients.
2. Central Banks:
 - Central banks participate in the forex market to manage their country's foreign reserves and stabilize their national currency.
3. Investment Managers:
 - Asset managers and hedge funds trade currencies as part of their investment strategies.
4. Corporations:
 - Companies use forex trading to hedge against currency risk arising from international trade and investments.
5. Retail Traders:
 - Individual traders participate through online forex brokers, often trading on a smaller scale.

Types of Forex Trades

1. Spot Market:
 - The most straightforward type of forex trade where currencies are bought and sold at current market prices for immediate delivery.
2. Forward Contracts:
 - Agreements to buy or sell a currency at a future date at an agreed-upon price. Used to hedge against future currency fluctuations.
3. Futures Contracts:

- Standardized contracts traded on exchanges to buy or sell currencies at a future date at a predetermined price.
4. Options Contracts:
- Provide the right, but not the obligation, to buy or sell a currency at a specified price before a certain date.

Factors Influencing Currency Exchange Rates

1. Economic Indicators:
 - Data such as GDP growth, employment figures, inflation rates, and interest rates can impact currency values.
2. Monetary Policy:
 - Decisions by central banks regarding interest rates and money supply affect currency values.
3. Geopolitical Events:
 - Political instability, conflicts, and trade policies can influence currency fluctuations.
4. Market Sentiment:
 - Traders' perceptions and speculations about economic and political developments can impact currency prices.
5. Trade Balances:
 - The balance of trade (exports vs. imports) affects currency demand and supply.

Risks in the Currency Market

1. Market Risk:
 - The risk of losing money due to unfavourable changes in exchange rates.
2. Leverage Risk:
 - High leverage can amplify both gains and losses, increasing the potential for significant financial loss.
3. Liquidity Risk:
 - While the forex market is highly liquid, there can be periods of low liquidity, especially in exotic currency pairs.
4. Counterparty Risk:
 - The risk that the other party in a transaction may default on their obligations.

3. Commodities Market

The commodities market is a sector of the financial markets where raw materials and primary products are traded. It plays a crucial role in the global economy, influencing prices and availability of essential goods. The commodities market encompasses various types of commodities, including energy products, metals, agricultural products, and livestock.

Key Features of the Commodities Market

1. Diverse Products:
 - Includes a wide range of products such as crude oil, natural gas, gold, silver, copper, wheat, corn, coffee, and livestock.
2. Futures Contracts:
 - Commodities are primarily traded through futures contracts, which are agreements to buy or sell a specific quantity of a commodity at a predetermined price on a future date.
3. Spot Market:
 - The market for immediate delivery of commodities. Transactions occur at current market prices.
4. Spot vs. Futures:
 - Spot Market: Deals with the immediate exchange of commodities.
 - Futures Market: Involves agreements for future delivery and is used for hedging and speculation.

Types of Commodities

1. Energy Commodities:
 - Crude Oil: The most traded energy commodity, with benchmarks like Brent Crude and West Texas Intermediate (WTI).
 - Natural Gas: Traded in futures contracts and used for heating and electricity generation.
 - Coal: Used primarily for electricity generation and steel production.
2. Metals:
 - Precious Metals: Gold, silver, platinum, and palladium. Often used as a hedge against inflation and economic uncertainty.
 - Industrial Metals: Copper, aluminium, nickel, zinc, and lead. Essential for manufacturing and construction.
3. Agricultural Commodities:
 - Grains: Wheat, corn, rice, and soybeans. Key for food production and animal feed.

- Soft Commodities: Coffee, sugar, cocoa, and cotton. Used in consumer goods and textiles.

Factors Influencing Commodity Prices

1. Supply and Demand:

- Prices are influenced by the balance between supply and demand for the commodity. Factors include production levels, consumption rates, and inventory levels.

2. Economic Indicators:

- Economic growth, inflation rates, and interest rates can impact commodity prices. For instance, strong economic growth can increase demand for industrial metals and energy.

3. Geopolitical Events:

- Political instability, conflicts, and trade policies can affect supply chains and commodity prices. For example, tensions in oil-producing regions can drive up crude oil prices.

4. Weather Conditions:

- Weather patterns can significantly impact agricultural commodities. Droughts, floods, and hurricanes can affect crop yields and supply levels.

5. Currency Fluctuations:

- Commodities are often priced in U.S. dollars. Fluctuations in currency exchange rates can affect commodity prices for international buyers and sellers.

6. Technological Advancements:

- Innovations in extraction, production, and processing can influence supply and affect prices. For example, advancements in fracking technology have increased oil production.

Types of Commodity Investments

1. Direct Investment:

- Purchasing physical commodities or futures contracts directly.

2. Commodity Futures:

- Contracts to buy or sell commodities at a future date. Used for speculation and hedging.

3. Commodity ETFs:

- Exchange-traded funds that track the performance of a commodity index or basket of commodities.

4. Commodity Mutual Funds:
 - Funds that invest in commodities directly or through futures contracts.
5. Commodity Stocks:
 - Investing in companies that produce or are involved in the commodity sector, such as oil and gas companies or mining firms.
6. Commodities Indexes:
 - Indexes that track the performance of a basket of commodities or commodity futures.

Risks in Commodity Trading

1. Price Volatility:
 - Commodities can experience significant price swings due to factors like geopolitical events, economic data, and weather conditions.
2. Liquidity Risk:
 - Some commodities may have lower liquidity, making it harder to enter or exit positions without impacting prices.
3. Geopolitical Risk:
 - Political and economic instability in commodity-producing regions can impact prices and availability.

4. Introduction to Derivatives

Meaning of Derivatives

Derivatives is a contract which derives its value from an underlying asset. It is commonly used as a hedging tool.

Forwards Contract

A forward contract is a type of financial derivative used to buy or sell an asset at a predetermined price on a specified future date. Unlike standardized futures contracts traded on exchanges, forward contracts are customized agreements traded over-the-counter (OTC) between two parties

Key Features of Forward Contracts

1. Customization:
 - Forward contracts are tailored to the specific needs of the parties involved, including the amount of the asset, the price, and the settlement date.
2. OTC Trading:

- Forward contracts are traded directly between parties, not on an exchange. This allows for customization but also introduces counterparty risk.
3. Settlement:
 - Settlement can be in cash or through physical delivery of the asset. The method of settlement is agreed upon at the time of the contract's creation.
 4. Non-Standardized:
 - Unlike futures contracts, forward contracts are not standardized and do not have a central clearinghouse, which can lead to greater flexibility but also increased credit risk.
 5. Private Agreement:
 - The terms of the contract, including the asset price, quantity, and delivery date, are negotiated and agreed upon privately between the two parties.

Risks of Forward Contracts

1. Counterparty Risk:
 - The risk that one party may default on the contract, leading to potential financial losses for the other party. This risk is higher in OTC markets due to the absence of a clearinghouse.
2. Market Risk:
 - The risk of unfavorable price movements in the underlying asset, which can lead to financial losses for one party.
3. Liquidity Risk:
 - The risk that the contract cannot be easily unwound or traded before the settlement date, potentially leading to difficulties in exiting the position.
4. Credit Risk:
 - The risk that the counterparty may not have the financial ability to meet their obligations under the contract.

Advantages of Forward Contracts

1. Customization:
 - Allows for tailor-made contracts to meet specific needs of the parties involved.
2. Flexibility:
 - Provides flexibility in terms of contract size, delivery date, and settlement method.
3. Hedging Capabilities:

- Effective tool for managing risks associated with price fluctuations in various markets.

Disadvantages of Forward Contracts

1. Counterparty Risk:
 - Higher risk of default due to the absence of a central clearinghouse.
2. Lack of Liquidity:
 - Forward contracts are less liquid than futures contracts, making it more challenging to exit a position before the settlement date.
3. Complexity:
 - Customization and private agreements can lead to complexity in understanding and managing the contract.

Futures Contract:

A futures contract is a standardized financial derivative used to buy or sell an asset at a predetermined price on a specified future date. Unlike forward contracts, which are customized and traded over-the-counter (OTC), futures contracts are standardized and traded on exchanges. This standardization and exchange trading provide additional liquidity and reduce counterparty risk. Here's a detailed overview of futures contracts:

Key Features of Futures Contracts

1. Standardization:
 - Futures contracts are standardized in terms of contract size, expiration date, and other terms. This standardization ensures that contracts are interchangeable and can be easily traded on exchanges.
2. Exchange-Traded:
 - Futures contracts are traded on regulated exchanges such as the NSE & BSE
3. Margin Requirements:
 - Traders are required to post an initial margin (a percentage of the contract's value) to enter into a futures contract. Maintenance margins are also required to keep the position open.
4. Settlement:
 - Futures contracts can be settled either through physical delivery of the underlying asset or through cash settlement, where the difference between the contract price and the market price is paid.

Risks of Futures Contracts

1. Market Risk:

- Futures contracts are subject to market risk due to price volatility in the underlying asset. Adverse price movements can lead to significant losses.
2. Leverage Risk:
 - The use of leverage in futures trading means that small price movements can result in large gains or losses, potentially leading to substantial financial risk.
 3. Counterparty Risk:
 - Although exchanges mitigate counterparty risk through clearinghouses, there is still a risk of default, particularly in markets with less liquidity.
 4. Liquidity Risk:
 - Some futures contracts may have low trading volumes, leading to difficulties in entering or exiting positions without affecting the market price.
 5. Margin Calls:
 - If the market moves against a trader's position, they may receive a margin call requiring them to deposit additional funds to maintain the position.

Advantages of Futures Contracts

1. Standardization and Liquidity:
 - Standardized contracts and exchange trading provide liquidity and ease of trading.
2. Transparency:
 - Exchanges offer transparent pricing and trading information, reducing the potential for manipulation.
3. Hedging Capabilities:
 - Effective tool for managing price risk and securing future prices for various assets.

Disadvantages of Futures Contracts

1. Complexity:
 - Futures contracts can be complex and may not be suitable for all investors, particularly those without experience in derivatives trading.
2. Risk of Loss:
 - The use of leverage increases the potential for significant losses, which can exceed the initial investment due to mandatory execution of contract.
3. Margin Requirements:

- Ongoing margin requirements and potential margin calls can affect liquidity and financial stability.

Options Contract

An options contract is a financial derivative that gives the holder the right, but not the obligation, to buy or sell an underlying asset at a predetermined price on or before a specified expiration date. Options are used for various purposes, including hedging, speculation, and arbitrage. They provide a flexible tool for managing financial risk and taking advantage of market movements.

Key Features of Options Contracts

1. Rights and Obligations:
 - Call Option: Gives the holder the right to buy the underlying asset at the strike price before or on the expiration date.
 - Put Option: Gives the holder the right to sell the underlying asset at the strike price before or on the expiration date.
2. Premium:
 - The price paid to acquire an options contract. It is paid upfront by the buyer to the seller (or writer) of the option.
3. Strike Price (Exercise Price):
 - The predetermined price at which the holder can buy (for call options) or sell (for put options) the underlying asset.
4. Expiration Date:
 - The date by which the option must be exercised or will expire. Options can be exercised at or before this date, depending on whether they are American or European style.

Risks of Options Contracts

1. Market Risk:
 - Options are subject to market risk, and unfavorable movements in the underlying asset can lead to losses.
2. Leverage Risk:
 - Options can involve leverage, which means that small movements in the underlying asset can result in significant gains or losses.
3. Expiration Risk:
 - Options expire worthless if not exercised or sold before the expiration date, leading to a total loss of the premium paid.
4. Complexity:

- Options strategies can be complex, involving multiple positions and varying risk profiles. Understanding the mechanics and risks of options is crucial.

5. Liquidity Risk:

- Some options may have low trading volumes, making it difficult to enter or exit positions without affecting the market price.

Advantages of Options Contracts

1. Flexibility:

- Options provide a range of strategies for different market conditions and investment objectives.

2. Limited Risk for Buyers:

- The maximum loss for option buyers is limited to the premium paid for the option.

3. Leverage:

- Options offer leverage, allowing traders to control larger positions with a smaller amount of capital.

4. Income Generation:

- Writing options can generate additional income through premiums collected.

Disadvantages of Options Contracts

1. Risk of Total Loss:

- Options can expire worthless, leading to a total loss of the premium paid.

2. Complexity:

- Options strategies and pricing can be complex, requiring a good understanding of the market and the underlying asset.

3. Margin Requirements for Sellers:

- Sellers of options may face margin requirements and potentially unlimited risk if the market moves unfavourably.

5. Fixed Income Securities

Fixed income securities are financial instruments that provide investors with regular, predictable income over a specified period. They are typically characterized by a fixed interest payment and the return of the principal amount at maturity. Fixed income securities are often considered lower risk compared to equities, as they offer a fixed return and are less volatile.

Key Features of Fixed Income Securities

1. Regular Income:
 - Provide regular interest payments, known as coupon payments, typically paid semi-annually or annually.
2. Principal Repayment:
 - Return the principal amount (face value) to the investor upon maturity.
3. Fixed Interest Rate:
 - Offer a fixed interest rate or coupon rate, which determines the income the investor will receive.
4. Maturity Date:
 - Have a specified maturity date when the principal amount is repaid to the investor.
5. Lower Risk:
 - Generally considered less risky than equities due to their predictable income and fixed principal repayment.

Types of Fixed Income Securities

1. Bonds:
 - Government Bonds: Issued by national governments. Examples include U.S. Treasury bonds, Indian Government Securities (G-Secs). They are generally considered low risk.
 - Corporate Bonds: Issued by corporations to raise capital. They offer higher yields compared to government bonds but carry higher risk.
 - Municipal Bonds: Issued by state or local governments. Interest income may be exempt from federal taxes or state taxes, depending on the jurisdiction.
2. Treasury Bills (T-Bills):
 - Short-term securities issued by the government with maturities of less than one year. They are sold at a discount to their face value and pay no interest. The return is the difference between the purchase price and the face value.
3. Certificates of Deposit (CDs):
 - Time deposits offered by banks with fixed interest rates and maturity dates. They are insured up to a certain amount by government agencies (e.g., FDIC in the U.S.).
4. Commercial Paper:
 - Short-term, unsecured promissory notes issued by corporations to meet short-term funding needs. They typically have maturities of up to 270 days and are issued at a discount to face value.

5. Mortgage-Backed Securities (MBS):

- Securities backed by a pool of mortgages. Investors receive periodic payments derived from the mortgage payments made by homeowners.

6. Municipal Bonds:

- Issued by state and local governments to finance public projects. They may offer tax-exempt interest income depending on the investor's residence and tax situation.

7. Fixed Income Mutual Funds:

- Mutual funds that invest in a portfolio of fixed income securities. They offer diversification and professional management.

Advantages of Fixed Income Securities

1. Predictable Income:

- Provide regular and predictable income through interest payments, making them suitable for income-focused investors.

2. Capital Preservation:

- Return the principal amount at maturity, which helps preserve capital.

3. Lower Volatility:

- Typically less volatile than stocks, offering more stability in investment portfolios.

4. Diversification:

- Offer diversification benefits when combined with equities and other asset classes in an investment portfolio.

5. Tax Benefits:

- Some fixed income securities, like municipal bonds, offer tax-exempt interest income.

Disadvantages of Fixed Income Securities

1. Interest Rate Risk:

- The value of fixed income securities can decrease if interest rates rise, as newer issues may offer higher yields.

2. Inflation Risk:

- Fixed payments may lose purchasing power due to inflation over time, eroding real returns.

3. Credit Risk:

- Corporate bonds and other non-government securities carry the risk of default by the issuer, affecting the interest payments and principal repayment.
4. Lower Returns:
- Generally offer lower returns compared to equities, which may not meet the needs of investors seeking higher growth.

Key Considerations for Investing in Fixed Income Securities

1. Credit Quality:
 - Evaluate the credit rating of the issuer to assess the risk of default. Higher-rated securities are generally safer but offer lower yields.
2. Duration:
 - Consider the duration of the securities, which measures their sensitivity to interest rate changes. Longer durations can be more affected by interest rate fluctuations.
3. Inflation Protection:
 - Consider securities that provide inflation protection, such as inflation-linked bonds, to preserve purchasing power.
4. Investment Horizon:
 - Align the maturity of the fixed income securities with your investment horizon to ensure the funds are available when needed.

Example of Fixed Income Securities in a Portfolio

An investor looking for stability and regular income might allocate a portion of their portfolio to a mix of:

- Government Bonds: For safety and steady income.
- Corporate Bonds: For higher yields with some additional risk.
- Certificates of Deposit (CDs): For guaranteed returns and capital preservation.

6. Rating Agencies in India

In India, credit rating agencies assess the creditworthiness of various entities, including companies, government bodies, and financial instruments. These agencies provide ratings that help investors gauge the risk associated with investing in debt securities or lending to borrowers. The ratings can influence the cost of borrowing and investment decisions.

Major Credit Rating Agencies in India

1. CRISIL Limited (Credit Rating Information Services of India Limited):
 - Overview: CRISIL is one of the oldest and most prominent credit rating agencies in India, established in 1987.

- Services: Provides ratings for corporate bonds, debentures, government securities, and more. It also offers research and risk, policy, and advisory services.
 - Affiliations: A subsidiary of S&P Global Ratings.
2. ICRA Limited (Investment Information and Credit Rating Agency of India Limited):
- Overview: ICRA was founded in 1991 and is a leading credit rating agency in India.
 - Services: Offers ratings for various debt instruments, including corporate bonds, commercial papers, and structured finance products. It also provides research services.
 - Affiliations: An affiliate of Moody's Investors Service.
3. CARE Ratings Limited (Credit Analysis and Research Limited):
- Overview: Established in 1993, CARE Ratings is a major credit rating agency in India.
 - Services: Provides ratings for corporate bonds, bank loans, and other financial instruments. It also offers research, risk, and advisory services.
 - Affiliations: Independent agency with no direct international affiliations but operates globally.
4. Fitch Ratings India:
- Overview: Fitch Ratings entered the Indian market in 2001. It is part of the global Fitch Group.
 - Services: Provides ratings for corporate and sovereign entities, as well as financial instruments like bonds and structured products.
 - Affiliations: A subsidiary of Fitch Group, which is part of the global Fitch Ratings network.
5. Brickwork Ratings:
- Overview: Founded in 2007, Brickwork Ratings is a relatively newer agency.
 - Services: Offers credit ratings, research, and risk advisory services for various financial instruments and entities.
 - Affiliations: Independent agency with a focus on India and South Asia.

Functions and Importance of Credit Rating Agencies

1. Credit Assessment:
 - Evaluate the creditworthiness of issuers and their financial instruments, providing ratings that reflect their ability to meet debt obligations.
2. Investor Guidance:

- Help investors make informed decisions by providing ratings that indicate the risk associated with investment options.
3. Borrowing Costs:
- Influence the interest rates at which entities can borrow money. Higher-rated entities generally secure loans at lower interest rates compared to lower-rated ones.
4. Market Efficiency:
- Enhance market efficiency by providing transparency and standardization in credit assessments.
5. Regulatory Compliance:
- Assist in compliance with regulatory requirements for financial institutions and investment products.

Rating Scale and Symbols

Credit rating agencies use a letter-based scale to indicate the credit quality of entities and their financial instruments. Common rating symbols include:

- AAA: Highest credit quality, lowest risk.
- AA: High credit quality, low risk.
- A: Upper-medium credit quality, moderate risk.
- BBB: Medium credit quality, moderate risk.
- BB and below: Lower credit quality, higher risk