What Are Derivatives?

Derivatives are financial instruments whose value is derived from an underlying asset (stocks, bonds, commodities, currencies, interest rates, indices).

The Purpose is mainly to reduce risk by:

- Hedging: Reduce exposure to risk.
- Speculation: Profit from price movements.
- Arbitrage: Exploit price differences across markets.

Types of Derivatives – There are many types of derivatives out of which most common are discussed below :

Forward Contracts:

- Customized agreements to buy/sell an asset at a future date at a fixed price.
- Traded OTC (over-the-counter).

. No daily settlement.

- Risk: Counterparty default.
- **Futures Contracts:**
- Similar to forwards but standardized contracts between buyer and seller to buy or sell something at a future date at a certain price.
  - It is traded on exchanges.
  - Prices fluctuate everyday.
- Daily settlement reduces default risk.
- Used widely for hedging commodities, currencies, and interest rates.
- **Options:**
- Right, but not obligation, to buy (call option) or sell (put option) an asset at a strike price.

- Premium paid upfront.
- Used for hedging downside risk or leveraging upside potential.
- **Swaps:**
- Agreements to exchange cash flows in future.

Common types:

- Interest Rate Swaps: Fixed vs. floating payments.
- Currency Swaps: Exchange principal and interest in different currencies.
- Credit Default Swaps (CDS): Insurance against default.

Role of Derivatives in Risk Management

- Market Risk:
- Hedging exposure to price, interest rate, or FX movements.
- Example: Airlines hedge fuel costs with oil futures.
- Credit Risk:
- CDS used to transfer default risk.