

Futures Market & Futures Contracts

- **Definition:** A futures contract is a type of derivative contract which is a standardized agreement to buy or sell an asset at a predetermined price on a future date.
- **Trading Venue:** Futures are traded on organized exchanges (e.g., MCX, NSE).
- **Characteristics:**
 - **Standardization:** Quantity, quality, and delivery date are fixed by the exchange.
 - **Margin Requirement:** Both parties must deposit margin to reduce default risk.
 - **Daily Settlement (Mark-to-Market):** Gains/losses are settled daily.
 - **Liquidity:** High, due to exchange trading.
 - **Counterparty Risk:** Low, as clearing houses guarantee settlement.

Forward Prices & Forward Contracts

- **Definition:** A forward contract, similar to futures is a customized agreement between two parties to buy/sell an asset at a future date for a price agreed today.
- **Trading Venue:** Over-the-counter (OTC), negotiated privately.
- **Characteristics:**
 - **Customization:** Terms (quantity, quality, delivery date) are flexible.
 - **Settlement:** Occurs only at maturity (no daily mark-to-market).
 - **Counterparty Risk:** High, since no clearing house is involved.
 - **Liquidity:** Low, as contracts are tailored and not exchange-traded.

Interest Rate & Standardization

- **Interest Rate in Pricing:** Both futures and forwards use the **risk-free interest rate** in pricing models (e.g., cost-of-carry model).

Formula (simplified): $F = S(1+r)^t$

Where, F = forward/futures price, S = spot price, r = risk-free interest rate, t = time to maturity.

- **Standardization:** Futures are standardized by exchanges to ensure transparency and liquidity. Forwards lack standardization, making them flexible but riskier.

Risks & Considerations

- **Futures:** Safer due to clearing houses but may require daily margin adjustments.
- **Forwards:** Flexible but expose parties to **default risk** and **liquidity issues**.
- **Decision Point:** Use **futures** for liquid, standardized assets (commodities, currencies, indices). Use **forwards** for customized needs (corporate hedging, unique delivery terms).

