

Financial Derivatives

School of Finance and Commerce

Course Code : BBAF3020

Course

Name: Financial Derivatives

The logo of Galgotias University is a stylized 'G' composed of three curved, overlapping bands in shades of yellow, blue, and red, set against a light pink circular background.

Lecture -2

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Name of the Faculty: GIRISH GARG

Program Name: BBA (EIA)

Topic covered

- Forward Contract
- Features of forward contract
- Settlement of forward contract
- Future contract
- Features of future contract
- Future V/s Forward
- Open interest & volume
- Mark to market

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Forward Contract

- Forward contract is an agreement to buy or sell an asset at a **price determined now** but is **settled later** at a predetermined date.
- Forward contract enables elimination of price risk faced by both buyer and seller of asset.

Features of Forward Contract

- Forward contract is an OTC product tailored to meet specific needs of counterparties.
- Price is determined now for settlement at future date
- Mutual obligations on both counterparties to perform
- Counterparty risk is assumed by both
- Cancellation can be done only by mutual consent
- No front-end payment
- No interim cash flows
- Cash flows only on settlement date

Settlement of Forward Contract

- ***By delivery of asset and paying the consideration:***
If an exporter sold \$ 1000 to a bank 2-m forward at Rs. 74 then at maturity, the contract is settled by delivery of \$ 1000 by exporter and bank would pay Rs. 74,000;
- ***By entering into an offsetting contract opposite to the original at maturity or prior, at a price prevailing then:***
For example the exporter having sold 2-m forward € 100 at Rs 66.00 may after 1 months, decide to buy 1-m forward € 100 at Rs 67.00 per € and settle the difference of Rs 100.

Future Contract

- Futures are similar to a forward contract but are exchange traded.
- Futures being exchange traded do not have default risk because exchange guarantees settlement. Exchange serves as counterparty to both buyer and seller.

Features of Future Contract

- For trading at the exchange the contract needs to be standardized.
- Standardization of the futures contract is done for
 - ❖ Size of the contract,
 - ❖ Delivery of the contract obligations,
 - ❖ Quotation and tick size,
 - ❖ Specification of the underlying asset,
- Futures is a **standardized forward contract** that is **traded on an exchange**.

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Forward v/s Future

Basis	Forward	Future
Nature	Customized	Standardized
Trading	OTC	Through exchange only
Liquidity	Less liquid	Highly liquid
Counter party	Risk	Negligible
Settlement	Delivery	Offset or through delivery
Margin	No margin required	Compulsory needs to be paid & perform
Mark to market	Not mark to market	Marked to market on daily basis
Time of delivery	Any time mutually decided by parties	Fixed date
Quantity specification	Any quantity	Fixed standard size/ lot
Cost of hedging	High	Very nominal

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Open interest and Volume

- ❖ Open interest is the number of futures contracts outstanding. It has to be zero on opening and upon maturity of the contract.
- ❖ Volume refers to the number of contracts traded in a day.
- Open interest is the number of contracts not settled.
- The contract that offsets initial position does not add to the open interest but they do add to the volume.

Mark to Market (MTM)

From cash flow perspective, there are 2 differences in futures and forward contracts:

1. Initial and Variation Margins
2. Marking-to-market (MTM)

To cover the default risk the exchange requires initial margin when futures position is opened.

The position is also marked-to-market (MTM) on daily basis; i.e. profit/loss settled on daily basis.

The margin cannot fall below a minimum level due to MTM and if it does, then **margin call** is made to replenish margin at the original level.

References:

- srivastava, r. (2017). *financial derivative and risk management*. new delhi: oxford university press.
- hull, j. c. (1988). *options, futures and other derivatives*. (9th, Ed.) pearson.

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Thanks you

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