J. L. SHAH SECURITIES PVT. LTD.

All about Derivatives

What are Derivatives?

The term "**Derivative**" indicates that it has no independent value, i.e. its value is entirely "derived" from the value of the underlying asset. The underlying asset can be securities, commodities, bullion, currency, live stock or anything else. In other words, Derivative means a forward, future, option or any other hybrid contract of pre determined fixed duration.

What is a Futures Contract?

Futures Contract means a legally binding agreement to buy or sell the underlying security on a future date. Future contracts are the organized/standardized contracts in terms of quantity, quality (in case of commodities), delivery time and place for settlement on any date in future. The contract expires on a pre-specified date which is called the expiry date of the contract. On expiry, futures can be settled by delivery of the underlying asset or cash. Index as well as stock futures are cash settled, i.e., through the exchange of cash.

What is an Option contract?

Options Contract is a type of Derivatives Contract which gives the buyer/holder of the contract the right (but not the obligation) to buy/sell the underlying asset at a predetermined price within or at end of a specified period. The buyer / holder of the option purchases the right from the seller/writer for a consideration which is called the premium. The seller/writer of an option is obligated to settle the option as per the terms of the contract when the buyer/holder exercises his right. The underlying asset could include securities, an index of prices of securities etc. An Option to buy is called Call option and option to sell is called Put option.

Further, if an option that is exercisable on or before the expiry date is called American option and one that is exercisable only on expiry date, is called European option. The price at which the option is to be exercised is called Strike price or Exercise price.

Therefore, in the case of American options the buyer has the right to exercise the option at anytime on or before the expiry date. This request for exercise is submitted to the Exchange, which randomly assigns the exercise request to the sellers of the options, who are obligated to settle the terms of the contract within a specified time frame.

As in the case of futures contracts, option contracts can be also be settled by delivery of the underlying asset or cash. Index as well as stock options are cash settled, i.e., through the exchange of cash.

What are Index Futures and Index Option Contracts?

Futures contract based on an index i.e. the underlying asset is the index, are known as Index Futures Contracts. For example, futures contract on NIFTY Index and BSE-30 Index. These contracts derive their value from the value of the underlying index.

Similarly, the options contracts, which are based on some index, are known as Index options contract.

An index, in turn derives its value from the prices of securities that constitute the index and is created to represent the sentiments of the market as a whole or of a particular sector of the economy. Indices that represent the whole market are broad based indices and those that represent a particular sector are sectoral indices. By its very nature, index cannot be delivered on maturity of the Index futures or Index option contracts therefore, these contracts are essentially cash settled on Expiry.

Why mini derivative contract?

The minimum contract size for the mini derivative contract on Index (Sensex and Nifty) was Rs. 1 lakh at the time of its introduction in the market. The lower minimum contract size means that smaller investors are able to hedge their portfolio using these contracts with a lower capital outlay. This means a better hedge for portfolio, and also results in more liquidity in the market.

What is the contract cycle for Equity based products in NSE ?

Futures and Options contracts have a maximum of 3-month trading cycle -the near month (one), the next month (two) and the far month (three), except for the Long dated Options contracts. Longer dated derivatives products are useful for those investors who want to have a long term hedge or long term exposure in derivative market. The premiums for longer term derivatives products are higher than for standard options in the same stock because the increased expiration date gives the underlying asset more time to make a substantial move and for the investor to make a healthy profit. Presently, longer dated options on Sensex and Nifty with tenure of upto 3 years are available for the investors.

What are the various membership categories in the equity derivatives market?

The various types of membership in the derivatives market are as follows:

- Trading Member (TM) – A TM is a member of the derivatives exchange and can trade on his own behalf and on behalf of his clients.
- Clearing Member (CM) –These members are permitted to settle their own trades as well as the trades of the other non-clearing members known as Trading Members who have agreed to settle the trades through them.
- Self-clearing Member (SCM) – A SCM are those clearing members who can clear and settle their own trades only.

What is the lot size of contract in the equity derivatives market?

Lot size refers to number of underlying securities in one contract. The lot size is determined keeping in mind the minimum contract size requirement at the time of introduction of derivative contracts on a particular underlying.

For example, if shares of XYZ Ltd are quoted at Rs.1000 each and the minimum contract size is Rs.2 lacs, then the lot size for that particular scrips stands to be 200000/1000 = 200 shares i.e. one contract in XYZ Ltd. covers 200 shares.

What is the margining system in the equity derivatives market?

Two type of margins have been specified -

- **Initial Margin** - Based on 99% VaR and worst case loss over a specified horizon, which depends on the time in which Mark to Market margin is collected.
- **Mark to Market Margin** (MTM) - collected in cash for all Futures contracts and adjusted against the available Liquid Networth for option positions. In the case of Futures Contracts MTM may be considered as Mark to Market Settlement.

Client Margins

Clearing Members and Trading Members are required to collect initial margins from all their clients. The collection of margins at client level in the derivative markets is essential as derivatives are leveraged products and non-collection of margins at the client level would provide zero cost leverage. In the derivative markets all money paid by the client towards margins is kept in trust with the Clearing House / Clearing Corporation and in the event of default of the Trading or Clearing Member the amounts paid by the client towards margins are segregated and not utilised towards the dues of the defaulting member.

Therefore, Clearing members are required to report on a daily basis details in respect of such margin amounts due and collected from their Trading members / clients clearing and settling through them. Trading members are also required to report on a daily basis details of the amount due and collected from their clients. The reporting of the collection of the margins by the clients is done electronically through the system at the end of each trading day. The reporting of collection of client level margins plays a crucial role not only in ensuring that members collect margin from clients but it also provides the clearing corporation with a record of the quantum of funds it has to keep in trust for the clients.

How does the Settlement take place?

Mark-to-market and final settlement are cash settled on T+1 basis.

Benefits of trading in Futures and Option:

- Able to transfer the risk to the person who is willing to accept them
- Incentive to make profit with minimal amount of risk capital
- Lower transaction costs
- Provides liquidity, enables price discovery in underlying market
- Derivative markets are lead economic indicators.

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