A derivative is a financial instrument, which derives its value from some other asset. This “other asset” is called the underlying. A rice farmer may wish to contract to sell his harvest at a future date to eliminate the risk of a change in prices by that date. The price for such a contract would obviously depend upon the current spot price of rice. Such a transaction could take place on a rice forward market. Here, the rice forward is the “derivative” and rice on the spot market is “the underlying”.

The underlying could be equity shares or an index, a commodity, a currency, bonds, etc. Derivative products vary according to their structure and terms and conditions. The most popular derivative products are Futures and Options.

Futures:
Futures are derivatives. These are securities whose value depends on the value of an underlying asset, which could be a commodity or a financial instrument. A future or a forward contract is an agreement between two parties to buy or sell an underlying asset at a certain time in the future for a certain price, which is fixed now. One party buys the asset and the other party sells the asset.

You can trade index and stock futures in Indian markets. Both the Bombay Stock Exchange and the National Stock Exchange offer trading in futures linked to the value of their underlying. Besides, the BSE Sensex and the S&P CNX Nifty, you can also trade in NSE Bankex , NSE IT, Minifty, CNX100, Nifty Junior and Midcap50 indices.

Futures trading are very useful to three categories of people. If your investing style matches any of the three following categories, you would find futures trading useful:

Speculators:
A speculator is a person who takes a view on the value of the futures contract and takes a position in the instrument. For example, a speculator might think that ABC prices would go up from their existing level. Hence he will go long (or buy) ABC futures. Or a speculator might think that XYZ shares would go down from their current price levels. Hence he will go short (or sell) XYZ futures. A speculator would use futures instead of taking a position in the underlying asset because futures give cash flow efficiency. Instead of paying the value of the underlying asset up front, only the initial margin is paid, with daily profits and losses being settled on a day-to-day basis. Thus futures are highly geared alternative to cash market positions. **You could speculate, too. But remember; speculate only to the extent that you can afford to lose. Never over extend yourself.**

Arbitrageurs:
An arbitrageur is a person who takes advantage of price differentials between two markets and makes profit in the process. For example say ABC shares are available on the BSE for Rs 300 and a one-month futures is quoting at Rs 320. The arbitrageur will buy ABC shares on the BSE and sell the one-month futures contract. On maturity of the futures contract, he will deliver the ABC shares and receive Rs 320, thus booking a profit of Rs 20 per share. An arbitrageur takes a covered position, in that he is not exposed to price risks in either market. You too could arbitrage between the two markets. However, such opportunities are available for very short periods of time and should be taken advantage of quickly.

Hedgers:
A hedger is a person who has a position in an underlying asset and takes an opposite position in the futures market to protect his price. Say you have a portfolio of shares. Current market valuations are pretty good, but you do not want to sell say because of tax reasons. You are, however, afraid that the market may crash and your portfolio value would come down. You can do hedging of the portfolio by selling index futures of equivalent value. If the market falls down, the profit on the index futures contract will offset the loss on your portfolio. If the market goes up, the loss on the futures contract will be offset by the profit on your portfolio.

Common Terms:

Spot price:
The spot price is the price of the underlying asset in the spot or cash market.

The expiry date of a futures contract:
The expiry date of a futures contract is the date on which the buyer and seller have to settle their obligations to the exchange.

Index Future:
Futures contracts whose value depends on the value of an underlying share index are known as index futures. Each share trades at a specific price at any point of time. But there is a need to represent the price of the market as a whole. This is done by identifying a basket of shares that is representative of this market, and tracking their consolidated value in terms of their base value. The value of this basket of shares is the value of the share index comprising these shares.

Daily price movement limit:

Daily price movement limits are the limits on the extent to which futures prices are allowed to vary from day to day. These limits are prescribed by the exchanges to prevent large price movements due to excessive speculation.

Lot size of a contract:
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.
E.g. If shares of XYZ Ltd are quoted at Rs.1, 000 each and the minimum contract size is Rs.2 lacs, then the lot size for that particular scripts stands to be 200000/1000 = 200 shares i.e. one contract in XYZ Ltd. covers 200 shares.

Calendar Spread:
A calendar spread is a position where one contract cycle of a future is hedged by an offsetting future position of different contract cycle in the same underlying asset. For example, a short position in January month index futures contracts may be hedged by a long position in February month index futures contracts.

Margins:
Two type of margins have been specified:

1. Initial margins

2. Mark-to-market profit/loss

Initial Margin:
The computation of initial margin is based on 99% VaR (Value at Risk) and depends on the time in which Mark to Market margin is collected. Value at Risk stands for how much money in portfolio may stand to lose in certain time horizon. Initial margin amount computed using VaR is collected up-front.

Mark to Market Margin (MTM):
Collected in cash for all Futures contracts and adjusted against the available Liquid Net worth for option positions. In the case of Futures Contracts MTM may be considered as mark to Market Settlement.

Trading in Options:
Options are contracts, which gives the buyer (holder) the right, but not the obligation, to buy or sell specified quantity of the underlying assets, at a specific (strike) price on or before a specified time (expiration date). The underlying may be commodities like wheat/ rice/ cotton/ gold/ oil or financial instruments like equity stocks/ stock index/ bonds etc.

European and American Style of options:
Options come in two varieties - European vs. American.
In a European option, the holder of the option can only exercise his right (if he should so desire) on the expiration date.
In an American option, he can exercise this right anytime between purchase date and the expiration date.

Call Options:
A call option gives the holder (buyer/ one who is long call), the right to buy specified quantity of the underlying asset at the strike price on or before expiration date.
The seller, however, has the obligation to sell the underlying asset if the buyer of the call option decides to exercise his option to buy.

Put Options:
A Put option gives the holder (buyer/ one who is long Put), the right to sell specified quantity of the underlying asset at the strike price on or before the expiry date.
The seller of the put option (one who is short Put) however, has the obligation to buy the underlying asset at the strike price if the buyer decides to exercise his option to sell.

Option Premium:
It is the price paid by the buyer to acquire the right. This is the amount, which the buyer of the option (whether it is a call or put option) has to pay to the option writer to induce him to accept the risk associated with the contract. In other words it is the price paid to buy the option.

Strike Price:
The strike price is the price at which the call / put option is written. The Exchange fixes this price.

Expiration date:
An option contract has a finite life. The date on which the option expires is known as Expiration Date.

Intrinsic Value of an option:
The intrinsic value of an option is defined as the amount by which an option is in-the-money, or the immediate exercise value of the option when the underlying position is marked-to-market.

Risks involved for an options buyer:
The risk/ loss of an option buyer is limited to the premium that he has paid.

Basic Option trades:

Call:
Investor will use this when he has Bullish Speculation of the Market/Script. He benefits from an increase in price of the underlying security.

Put:
Investor will use this when he has Bearish Speculation of the Market/Script. He benefits from a decrease in price of the underlying security.