



FAQ ON EQUITY DERIVATIVES

CONTENT

1. Trading

- A) How to open a trading account for commencing trading in the futures and options?
- B) What are the different forms / documents which are required to be submitted while opening a trading account?

2. Derivatives

- C) What are Derivatives?
- D) What is a Forward contract?
- E) What is a Futures contract?
- F) What is an Options contract?
- G) What is the meaning of Strike price?
- H) What is the concept of In the money, At the money and Out of the money in respect of Options?
- I) What is the Expiration Day?
- J) What is Open Interest?
- K) What is the contract cycle for contracts in NSE?

3. Uses of Futures & Options

- L) What are the uses of Futures for an investor?
- M) What are the uses of Options contracts?
- N) How are the contracts settled?

4. Product

- O) What are the derivatives products available at NSE?
- P) What type of information is available on the website of NSE for investors?

5. Risks

- Q) What are the risks associated with trading in Derivatives?

6. Do's and Don'ts

R) What are the do's and don'ts an investor needs to follow before and after commencing trading?

TRADING

A) How to open a trading account for commencing trading in the Futures & Options?

For trading in futures and options an investor first needs to open a trading account with his broker (trading member). If an investor already has a trading account for capital markets then only a futures & options trading account is to be opened by submitting necessary documents. No demat account is required since futures and options trading in India does not involve any delivery of securities. Only a trading account and a savings bank account are sufficient to commence trading. An investor can choose to trade on-line (internet based) or the conventional off-line method. An investor would need to fill in a client registration form and submit documents that will prove his identity, his residential address, income details etc. A passport, driving license, voter's ID, ration card etc. are some of the documents for residence proof. Permanent Account Number (PAN) would be required for opening a trading account and is also used as a proof of identity. Trading members provide investors a client registration kit which contains all the details for opening an account. Investors should read all documents carefully, fill in the forms and submit them along with necessary proofs.

B) What are the different forms / documents which are required to submitted while opening a trading account?

Generally the following are required for opening a trading account :-

1. Know Your Client (KYC) form – document captures basic information about the investor. Please fill this form correctly and strike off blank fields in the form.
2. Risk Disclosure Document - This document contains important information on risks associated with trading in Futures & Option (F&O) Segment of stock exchanges. Investors should read and understand this document before trading on the F&O segment of the Exchange.
3. Power of attorney PoA (non-mandatory) – an important document authorizing your trading member to operate your bank account. The PoA should be specific and not a general one.
4. For identity proof, residential address proof, income proof :
 - Two recent passport size photographs
 - Proof of bank account : any one of the following may be submitted :-
 - Copy of bank statement
 - Copy of first page of the bank pass book.
 - A cancelled cheque
 - Proof of identity: Pan Card, Aadhar, passport etc.

- Proof of address: any one of the following:-
 - Passport copy
 - Voter id card copy
 - Copy of ration card
 - Driving license copy
 - Bank pass book copy
 - Verified copies of
 - Electricity bill or telephone bill in the investor's name
 - Leave and license agreement/agreement for sale.
- Identity card/document with address, issued by
 - Central/state government and its departments
 - Statutory /regulatory authorities
 - Public sector undertakings
 - Scheduled commercial banks
 - Public financial institutions
 - Colleges affiliated to Universities
 - Professional Bodies such as ICAI, ICWAI, ICSI, Bar council etc. to their Members
- Copy of tax return
- Copy of salary slip
- Bank statement for last six months

Originals of documents should be produced for verification along with self-attested copies of documents. Trading member would allot a Unique Client Code to the investor. The investor should place orders and ensure his trades are executed only in the Unique Client Code assigned to him.

DERIVATIVES

C) What are Derivatives?

Derivatives are financial instruments. They are used basically as risk management tools. They help anyone having an underlying risk exposure to manage their risk.

D) What is a Forward contract?

Forward contracts are a type of derivatives. Take the example of a farmer who grows wheat. It would take around three months for the wheat to be ready in the farm after which the farmer can sell it. Suppose the current price of wheat is Rs. 100 per kg. (*spot price*). The farmer would like to sell his wheat at this price but the wheat would be ready only after three month. The farmer is unsure as to what would be the price of wheat after three months. He therefore faces a *price risk*.

However, the farmer can protect himself against any adverse price movement in wheat. To lock in the price of Rs. 100 the farmer can sell his wheat 'forward'. He can do so by entering into a forward contract with a buyer, promising to deliver the wheat after three months at Rs. 100 per kg. With this the farmer assures himself two things, a buyer for his wheat and a price of Rs. 100

per kg. After three months when the wheat is ready, he will deliver the wheat and receive from the buyer Rs. 100 per kg. This is called as a *forward contract*. Here a contract is entered into between two parties with a promise to buy and sell an asset (underlying) in future at a certain price. The buyer and seller are direct contractual counterparties to one another. The price at which the contract is entered into (Rs. 100 per kg.) is the *forward price*. The day the contract is entered into is the trade date and the day (after three months in this example) the money and wheat is exchanged is the *settlement date or expiry date*.

E) What is a Futures contract?

A futures is an exchange-traded derivative which is similar to a forward. Both futures and forwards represent agreements to buy/sell some underlying asset in the future for a specified price.

The fundamental difference between futures and forwards is the fact that futures are traded on exchanges, like a stock. Instead of buying and selling a forward contract, outside stock exchanges, futures can be bought and sold on a regulated, transparent market which is provided by a stock exchange. Infact, just as a share is purchased or sold through a broker of a stock exchange, futures can be purchased and sold through a broker of the exchange once the client has opened a trading account with the broker.

Futures were created to solve the problems which existed with the forward contracts, namely counter party risk and liquidity. If one of the parties default or declares bankruptcy, the other party suffers exposing the contract to a risk of settlement. There is too much generality and flexibility in designing forward contracts which make them convenient in a specific situation but makes them non-tradable and illiquid.

To make futures tradable and liquid, the Exchange specifies certain standard features of the contract. It is a standardized contract with a standardized underlying, a standardized contract size and a standardized settlement.

For eg. for Nifty futures traded at the NSE :

Standardized contract :	Nifty index futures
Standard underlying :	CNX Nifty index
Standardized contract size :	50
Standardized settlement :	Last Thursday of the month or the previous trading day if the last Thursday is a trading holiday.

Futures also eliminate counter party risk since all settlements are financially guaranteed by the Clearing Corporation (entity providing clearing & settlement, risk management and settlement guarantee).

F) What is an Options contract?

An Option is a contract which gives the right, but not an obligation, to buy or sell the underlying at a stated date and at a stated price (also called as the strike price). While a buyer of an option pays the premium and buys the right to exercise his option, the writer (seller) of an option is the one who receives the option premium and therefore obliged to sell/buy the asset if the buyer exercises it on him.

Options are of two types - Calls and Puts options :

“Calls” give the buyer the right but not the obligation to buy a given quantity of the underlying asset, at a given price on or before a given future date.

“Puts” give the buyer the right, but not the obligation to sell a given quantity of underlying asset at a given price on or before a given future date. All the options contracts are settled in cash.

Further the Options are classified based on type of exercise.

American Option - American options are options contracts that can be exercised at any time upto the expiration date.

European Options - European options are options that can be exercised only on the expiration date.

All options contracts at NSE are European style. All futures and options contracts at NSE are cash settled, i.e. on expiry of the contracts only funds are settled and there is no transfer of securities.

G) What is the meaning of Strike price?

The price at which the buyer of an option can buy the stock (in the case of a call option) or sell the stock (in the case of a put option) on or before the expiry date of option contracts is called strike price. It is the price at which the stock will be bought or sold when the option is exercised. Strike price is used in the case of options only; it is not used for futures or forwards.

H) What is the concept of In the money, At the money and Out of the money in respect of Options?

In-the-money option

An option is said to be in-the-money if on exercising the option, it would produce a cash inflow for the buyer. Thus, Call Options are in-the-money when the value of spot price of the underlying exceeds the strike price. On the other hand, Put Options are in-the-money when the spot price of the underlying is lower than the strike price.

Out-of-the-money option

An out-of-the-money option is an opposite of an in-the-money option. An option-holder will not

exercise the option when it is out-of-the-money. A Call option is out-of-the-money when its strike price is greater than the spot price of the underlying and a Put option is out-of-the-money when the spot price of the underlying is greater than the option's strike price.

At-the-money option

An at-the-money-option is one in which the spot price of the underlying is equal to the strike price. It is at the stage where with any movement in the spot price of the underlying, the option will either become in-the-money or out-of-the-money.

Illustration

Consider some Call and Put options on stock XYZ. As on 13 August XYZ is trading at Rs. 116.25. The table below gives the information on closing prices of four options, expiring in September and December and with strike prices of Rs. 115 and Rs. 117.50.

Strike Price	September Call option	December Call option	September Put option	December Put option
Rs 115.00	Rs. 8.35	Rs. 12.30	Rs. 4.00	Rs. 8.00
Rs 117.50	Rs. 4.00	Rs. 8.15	Rs. 8.00	Rs. 12.00

Suppose the spot price of the underlying (closing share price) as at end of September is Rs. 116 and at end of December is Rs. 118. On the basis of the rules stated above, which options are in-the-money and which ones are out-of-the-money are given in the following table.

In-the-money Options		Out-of-the-money Options	
Option	Justification	Option	Justification
September 115 Call	$\text{Rs. } 115 < \text{Rs. } 116$	September 115 Put	$\text{Rs. } 115 < \text{Rs. } 116$
September 117.50 Put	$\text{Rs. } 117.50 > \text{Rs. } 116$	September 117.50 Call	$\text{Rs. } 117.50 > \text{Rs. } 116$

December 115 Call	Rs 115 < Rs 118	December 115 Put	Rs 115 < Rs 118
December 117.50 Call	Rs 117.50 < Rs 118	December 117.50 Put	Rs 115 < Rs 118

It may be noted that an option which is in-the-money at a particular instance may turn into out-of-the-money (and vice versa) at another instance due to change in the price of the underlying asset.

I) What is Expiration Day?

It is the last day on which the contracts expire. Futures and Options contracts expire on the last Thursday of the expiry month. If the last Thursday is a trading holiday, the contracts expire on the previous trading day. For E.g. The July 2014 contracts mature on July 31, 2014.

J) What is Open Interest?

Open interest is the number of contracts in futures and options which have been entered into by investors and which have not been closed out or expired. It gives an indication of the depth of the markets.

K) What is the contract cycle for contracts 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. New contracts are introduced on the trading day following the expiry of the near month contracts. The new contracts are introduced for a three month duration. This way, at any point in time, there will be 3 contracts available for trading in the futures market (for each security) i.e., one near month, one mid month and one far month duration respectively. For example on January 26 there would be three month contracts i.e. contracts expiring on January 31, February 28 and March 27 (all last thursdays of the months). On expiration date i.e January 31, new contracts having maturity of April 24 would be introduced for trading.

L) How are the contracts settled?

All the Futures and Options contracts are settled in cash on a daily basis and at the expiry or exercise (for options) of the respective contracts as the case may be. All out of the money and at the money option contracts of the near month maturity expire worthless on the expiration date.

USES OF FUTURES & OPTIONS

M) What are the uses of Futures for an investor?

Futures contracts can be used by investors in a variety of ways. But the main uses are :

- To profit from correctly anticipating future market price changes

S. No.		Action	Action
1	An investor believes markets are going to rise	Long (buy) Nifty Futures	<p>July 1: Buy Nifty Futures Qty : 50 Price : Rs. 7000 Total Value : Rs. 3,50,000</p> <p>July 10: Sell Nifty Futures Qty : 50 Price : Rs. 7200 Total Value : Rs. 3,60,000</p> <p>Profit : Rs. 10,000</p>
2	An investor believes markets are going to fall	Short (sell) Nifty Futures	<p>July 12: Sell Nifty Futures Qty : 50 Price : Rs. 7200 Total Value : Rs. 3,60,000</p> <p>July 20: Buy Nifty Futures Qty : 50 Price : Rs. 7000 Total Value : Rs. 3,50,000</p> <p>Profit : Rs. 10,000</p>

- To protect value of investments against fall in prices

S. No.	Date	Particulars
1	April 1	<ul style="list-style-type: none"> • Investor buys 2000 shares of ABC Ltd. @ Rs. 390 per share • Portfolio value is Rs. 7,80,000
2	April 7	<ul style="list-style-type: none"> • Investor feels price of ABC Ltd. shares may fall. • Wants to protect the value of his portfolio
3	April 7	<ul style="list-style-type: none"> • ABC Ltd. futures are trading on NSE at Rs. 392 per unit • To hedge (protect against adverse price movement in the shares), the investor sells 2000 ABC Ltd. futures @ Rs.392 per unit

4	April 24 (last Thursday of the month – expiry day of futures contract)	<ul style="list-style-type: none"> • ABC Ltd. share price is Rs. 300 per share (price has fallen from Rs. 390 at which shares were purchased by the investor) • Investor's loss is Rs. 90 per share • Loss from ABC Ltd. shares is Rs. 1,80,000 (Rs. 90 X 2000) • ABC Ltd. Futures which were sold at Rs. 392 per future would be settled at Rs. 300 giving the investor a gain of Rs. 92 per unit • Gain from ABC Ltd. futures is Rs. 1,84,000 (Rs. 92 X 2000) • Total gain = Rs. 4,000* • Value of investors portfolio = Rs. 7,84,000
---	--	--

** Assumed figures. There may be no gains in a hedging strategy, only loss may be prevented keeping the value of portfolio very close to the original holding value.*

- **Leverage**

Futures are leveraged products. Which means one can take large exposure to futures with a relatively small amount of initial outlay (called as initial margin), so realizing a bigger return (in percentage terms) on the initial investment.

	1 ABC Ltd. shares	1 ABC Ltd. Futures
Initial price	Rs. 250	Rs. 252
Investment (to buy)	Rs. 250	Rs. 25 (initial margin only)
Price after 10 days	Rs. 260	Rs. 261
Net gain	Rs. 10	Rs. 9
% return (Net gain *100/ investment)	4%	36%

N) What are the uses of Options contracts?

There are a variety of ways in which options can be used by investors :

- **Bullish on the market over the short term : Buy Nifty calls**

Example:

- On January 1, Spot Nifty is 7263.50
- Buy January Nifty contract with Strike Price Rs. 7250
- Premium Paid Rs. 44 X 200 = Rs. 8800
- On contract expiry on January 25, Nifty is 7370
- Profit = 7370 - 7260 = Rs. 110 less premium Rs. 44 per unit

- **Bearish on the market over the short term : Buy Nifty puts**

Example:

- On March 1, Spot Nifty is 7371.5
 - Buy March contract with Strike Price 7350
 - Premium Paid Rs. 42 X 200 = Rs. 8400
 - On contract expiry on March 29, Nifty is 7195.1
 - Profit = 7350 - 7195.1 = Rs. 154.90 less premium Rs. 42 per unit
- **Leverage**

	1 ABC Ltd. shares	1 ABC Ltd. Call Option
Initial price	Rs. 250	Rs. 260
Investment (to buy)	Rs. 250	Rs. 2 (option premium)
Price on expiry date	Rs. 265	Rs. 265 (settlement price for options is the ABC Ltd. share price)
Net gain	Rs. 15	Rs. 3 (Rs. 15 – Rs. 2 premium paid)
% return (Net gain *100/ investment)	6%	150%

- **Hedging**

Hedging strategy can be used for minimizing losses :

- December 15, ABC Ltd. shares trading at Rs.100. Investor buys one share.
- December 20, Investor fears price of ABC Ltd. shares may fall.
- Buys a Put : Strike Price = Rs. 100. Premium = Rs. 2
- On expiry date of the options contract, ABC Ltd. is trading at Rs. 80.
- Loss on ABC Ltd. shares for the investor is Rs. 20
- Gain on Put Options = Rs. 20 – Rs. 2 premium paid = Rs. 18
- Net loss = Rs. 2/-. Without Puts loss would be Rs. 20/-.
- Hedging helped the Investor minimize his losses.

PRODUCT

O) What are the derivatives products available at NSE?

NSE currently provides trading in Futures and Options contracts on 9 major indices and more than 100 securities. :

Indices

- CNX Nifty Index
- CNXIT Index
- BANK Nifty Index

- Nifty Midcap 50 Index
- CNX Infrastructure Index
- CNX PSE Index

Further details are available at :

<http://www.nseindia.com/products/content/derivatives/equities/products.htm>

P) What type of information is available on the website of NSE for investors?

There are various types of information available to assist investors trading in futures and options contracts at NSE. Some of these are :-

- Top 20 contracts based on volume (contracts) / turnover (Rs.)
- Top 20 stock futures/stock options based on volume (contracts) / turnover (Rs.)
- Most Active Contracts/Calls/Puts by volume & value
- Various charts
- Open interest (OI) spurts by underlying (Top 25 securities based on Open Interest change)
- OI Spurts by contracts (Top 25 securities based on Open Interest change)
 - Rise in OI-Rise in Price
 - Rise in OI-Slide in Price
 - Slide in OI-Rise in Price
 - Slide in OI- Slide in Price
- Instrument wise volume and turnover (Intraday volume statistics)
- Bhavcopy
- NSE Open Interest
- Combined Open Interest across exchanges
- Participant wise trading volumes
- Participant wise open interest
- Daily settlement prices
- Archives & statistics

RISKS

Q) What are the risks associated with trading in Derivatives?

Investors must understand that investment in derivatives has an element of risk and is generally not an appropriate avenue for someone of limited resources/ limited investment and / or trading experience and low risk tolerance. An investor should therefore carefully consider whether such trading is suitable for him or her in the light of his or her financial condition. An investor must accept that there can be no guarantee of profits or no exception from losses while executing orders for purchase and / or sale of derivative contracts. Investors who trade in derivatives at the Exchange are advised to carefully read the Model Risk Disclosure Document and the details

contained therein. This document is given by the broker to his clients and must be read, the implications understood and signed by the investor. The document clearly states the risks associated with trading in derivatives and advises investors to bear utmost caution before entering into the markets.

Example 1

- An investor purchased 100 Nifty Futures @ Rs. 7200 on June 10. Expiry date of futures contract is June 26.
- Total Investment : Rs. 7,20,000.
- Initial Margin paid : Rs. 72,000 (10% of value)
- On June 26, suppose, Nifty index closes at 6,780.
- Loss to the investor $(7200 - 6780) \times 100 = \text{Rs. } 42,000$
- **The entire initial investment (i.e. Rs. 42,000) is lost by the investor.**

Example 2

- An investor buys 100 Nifty call options at a strike price of Rs. 7000 on June 15. Nifty index is at 7050. Premium paid = Rs. 10,000 (@Rs.100 per call X 100 calls).
- Expiry date of the contract is June 26
- On June 26, Nifty index closes at 7900.
- **The call will expire worthless and the investor losses the entire Rs.10,000 paid as premium.**

Example 3

- An investor buys 100 ABC Ltd. put options at a strike price of Rs. 400 on June 15. ABC Ltd. share price is at 380. Premium paid = Rs. 5,000 (@Rs. 50 per put X 100 calls).
- Expiry date of the contract is June 26
- On June 26, ABC Ltd. shares close at Rs. 410.
- **The put will expire worthless and the investor losses the entire Rs. 5,000 paid as premium.**

DOS AND DONT'S FOR INVESTORS

R) What are the do's and don't's an investor needs to follow while trading in futures & options?

1. Trading security futures contracts may not be suitable for all investors. This is because futures and options trading is highly leveraged. A relatively small amount of money can be placed as initial margin to establish a position having a much greater value. With small amounts of price changes, you may lose a substantial amount of money in a very short period of time. If you are uncomfortable with this level of risk, do not trade in futures and options contracts.

2. Any advice or tip that claims that there are fixed or huge returns expected may be risky and may lead to losing some, most, or all of your money.
3. Be cautious of claims that a trading strategy in futures and options is completely risk free and returns are guaranteed. Do your own research, understand the strategy thoroughly before investing.
4. Do not be misled by market rumors, luring advertisements of futures and options.
5. Do not be attracted to investments based on what an internet website, SMS, emails etc. promotes, unless you have done adequate study of the product.
6. Ensure that you deal with and through only SEBI registered intermediaries.
7. Ensure that you fill the KYC form completely and strike off the blank fields in the KYC form.
8. Ensure that you have read all the mandatory documents viz. Rights and Obligations, Risk Disclosure Document, Policy and Procedure document of the trading member.
9. Ensure to read, understand and then sign the voluntary clauses, if any, agreed between you and the trading member. Note that the clauses as agreed between you and the trading member cannot be changed without your consent.
10. Get a clear idea about all brokerage, commissions, fees and other charges levied by the broker on you for trading and the relevant provisions/ guidelines specified by SEBI/Stock exchanges.
11. Obtain a copy of all the documents executed by you from the trading member free of charge.
12. In case you wish to execute Power of Attorney (POA) in favor of the trading member, authorizing it to operate your bank account, please refer to the guidelines issued by SEBI/Exchanges in this regard.
13. Ensure that you receive contract notes signed by authorized signatory for all your transactions.
14. Make sure you get the final monthly derivatives bill on every expiry.

Disclaimer

Market condition can lead to substantial or loss. Investors are advised to seek adequate product and market knowledge as well as proper investment advice before trading futures.

The material provided here is for general information purposes only. While care has been taken to ensure accuracy, the information furnished to reader with no warranty as to the accuracy or completeness of its contents and on condition that any changes, omissions or errors shall not be made the basis for any claim, demand or cause for action.