

The number of contracts provided in options on index is based on the range in previous day's closing value of the underlying index and applicable as per the following table

Contract Standards			Strike Price Intervals		
Indices	Symbol	Lot Size	Index level	Strike Interval	No. of Strikes Provided In the money - At the money - Out of the money
S&P CNX Nifty	NIFTY	50	Upto 2000	50	4-1-4
S&P CNX Nifty	MINIFTY	20			
CNX IT	CNXIT	50	≥ 2001 upto 4000	100	6-1-6
Bank Nifty	BANKNIFTY	25	≥ 4001 upto 6000	100	6-1-6
Nifty Midcap 50	NFTYMCAP50	75	>6000	100	7-1-7

#### Product Specifications

Parameters	Specifications	Remarks
Exercise	European style	Only on expiry of the contract.
Trading Cycle I	Near month (one), Next month (two), Far month (three).	3-month trading cycle
Trading Cycle II	• 3 Quarterly cycle March / June / September / December & • 8 following Semi-Annual cycle June / December,	Long dated options are available only in S&P CNX Nifty option
Expiry day	last Thursday of the expiry month	(if last Thursday is a holiday then previous trading day)
Contract Size	Must be at least ₹ 200,000 at the time of introduction	For MINIFTY prescribed minimum contract value is at least ₹ 100,000
Price step	₹ 0.05 or 5 paise	
Final Exercise Settlement Price	Closing price of such underlying index on the last trading day of the options contract	
Final Settlement	T+1 Day	

#### Stock Options

The Exchange provides following minimum strike prices for every option type (i.e. Call & Put) during the trading month.

Contract Standards		Strike Price Intervals			
Underlying	Symbol	Underlying Closing Price	Step Value	No. of Strikes Provided In the money- At the money- Out of the money	No. of additional strikes to be enabled intraday
Eligible stocks from the cash market	Currently there are 200 individual stocks (refer <a href="http://www.nseindia.com">www.nseindia.com</a> F&O>Contracts Information)	≤ ₹ 50	2.5	5-1-5	5
		> ₹ 50 to ≤ ₹ 100	5	5-1-5	5
		> ₹ 100 to ≤ ₹ 250	10	5-1-5	5
		> ₹ 250 to ≤ ₹ 500	20	5-1-5	5
		> ₹ 500 to ≤ ₹ 1000	20	10-1-10	10
		> ₹ 1000	50	10-1-10	10

#### Product Specifications

Parameters	Specifications	Remarks
Exercise	American style	can be exercised any trading day till the close of exercise time on the expiry day
Trading Cycle	Near month (one), Next month (two), Far month (three).	3-month trading cycle
Expiry day	last Thursday of the expiry month	(if last Thursday is a holiday then previous trading day)
Contract Size	At least ₹ 200,000 at the time of introduction	Lot sizes are revised every 6 months contract value is at least ₹ 100,000
Price step	₹ 0.05 or 5 paise	
Interim Exercise Settlement Price	Closing price of such underlying security on the day of exercise of the options contract	
Final Exercise Settlement Price	Closing price of such underlying security on the last trading day of the options contract	
Final Settlement	T+1 Day	

#### About National Stock Exchange:

The National Stock Exchange (NSE) is India's leading stock exchange covering various cities and towns across the country. NSE was set up by leading institutions to provide a modern fully automated screen-based trading system with national reach. The Exchange has brought about unparalleled transparency, speed & efficiency, safety and market integrity. It has set up facilities that serve as a model for the securities industry in terms of systems, practices and procedures.

NSE has played a catalytic role in reforming the Indian securities market in terms of microstructure, market practices and trading volumes. The market today uses state-of-art information technology to provide an efficient and transparent trading, clearing and settlement mechanism, and has witnessed several innovations in products & services viz. demutualisation of stock exchange governance, screen based trading, compression of settlement cycles, dematerialisation and electronic transfer of securities, securities lending and borrowing, professionalisation of trading members, fine-tuned risk management systems, emergence of clearing corporations to assume counter party risks, market of debt and derivative instruments and intensive use of information technology.

#### Milestone

April 93	Recognition as a stock exchange
November 94	Capital Market (Equities) segment goes live
October 95	Became largest stock exchange in the country
April 96	Launch of S&P CNX Nifty
February 00	Commencement of Internet Trading
June 00	Commencement of Derivatives Trading (Index Futures)
June 01	Commencement of trading in Index Options
June 07	NSE launches new index derivatives
January 08	Introduction of Mini Nifty derivative
March 08	Introduction of long term option contracts
April 08	Launch of Securities Lending & Borrowing Scheme, Launch of VIX
August 08	Commencement of Currency Futures Trading
August 09	Launch of Interest Rate Futures
November 09	Launch of Mutual Fund Service System
December 09	Commencement of settlement of corporate bonds
February 10	Launch of Currency Futures on additional currency pairs
March 10	Launch of Hang Sang ETF
July 10	LOI Signed with London Stock Exchange Group

#### Disclaimer:

Market conditions can lead to substantial profit or loss. Investors are advised to seek adequate product and market knowledge as well as proper investment advice before trading. The material provided here is for general information purpose only. While care has been taken to ensure accuracy, the information furnished to reader with no warranty as to 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.



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# OPTIONS

## STOCK OPTIONS • INDEX OPTIONS

### Index Options

#### What is an Option?

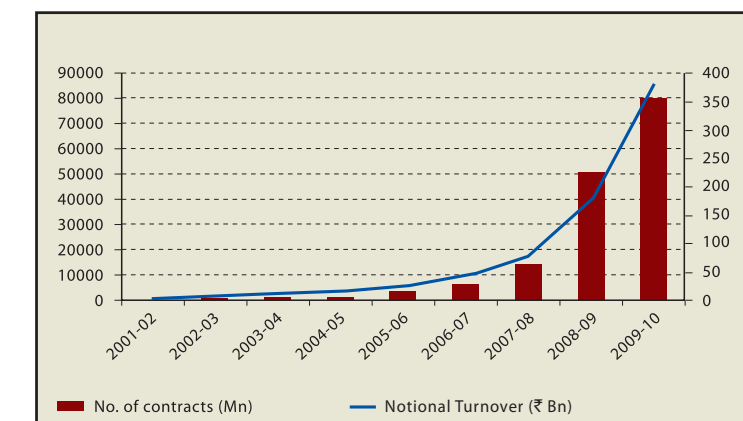
An option is a contract which gives the right, but not the obligation, to buy or sell the underlying at a stated date and at a stated price. A call option gives the right to buy and a put option gives the right to sell.

#### A typical options transaction:

On July 1, 2010, 'A' sells a call option (right to buy), with strike price of ₹ 500, which expires after one month on "ABC Ltd." to 'B' for a price of say ₹ 3.00. Now 'B' has the right to approach 'A' on July 31, 2010 and buy 1 share of "ABC Ltd." at ₹ 500. Here ₹ 3.00 is called the option price, ₹ 500 is the exercise price and July 31, 2010 is called the expiration date.

'B' does not have to necessarily buy 1 share of "ABC Ltd." on July 31, 2010 at ₹ 500 from 'A'. 'B' may find it worthwhile to exercise his right to buy only if "ABC Ltd." trades above ₹ 500. If "B" exercises his option, A has to necessarily sell "B" one share of "ABC Ltd." at ₹ 500 on July 31, 2010, so if the price of "ABC Ltd." goes above ₹ 500, 'B' may exercise his option, or else the option may lapse. Then 'B' loses the original option price of ₹ 3.00 and 'A' has gained it.

#### Volume growth in options trading on NSE



#### How options would help an investor?

Options allow the investor to trade a large segment of the equities market with one decision and thus provide a different perspective and new dimension to investing in equities. Options help the investors in reflecting their views on the market-bullish, bearish or neutral, in planning their investment strategies and thus trade efficiently.

#### Who should trade in Options?

Investors belonging to the following categories, depending on their financial goals and investment objectives may consider trading in options.

- Investors who want to participate in the market without trading or holding a large stock portfolio.

### Index Options

- Investors who have strong views on the market and its future movement and want to take advantage of the same
- Investors who are following the equities market very closely
- Investors who want to protect the value of their diversified equities portfolio

### Why should you trade in Options?

Buying options can be compared to buying insurance. For example to cover the risk of burglary, fire, etc. you buy insurance and pay premium. In the event of any untoward happening, the insurance cover compensates you for the losses. Otherwise, the insurance cover expires after the specific period of time. The insurance premium is the cost for the cover. Similarly, in the case of options, the right to buy or sell the underlying is acquired by payment of a premium. This affords protection against a general fall in market and thus can be attractive to various investors including Mutual Funds, who may like to bundle Nifty funds with Nifty options. The option could be exercised in the event of adverse market movement. Otherwise, the option will expire after the specific period. The cost of the option, i.e. the premium, is paid at the time of purchase. There is no further loss that is generated by the option for the buyer. This feature of option makes it attractive for the market participants.

### How options are settled?

Like Futures, options are also cash settled.

### Some basic terminology

**Options** – the right but not the obligation either to buy or sell a specified quantity of the underlying at a fixed exercise price on or before the expiration date.

**Call options** – the right to buy a specified quantity of the underlying at a fixed exercise price on or before the expiration date

**Example:** The holder of 'ABC' call option has the right to purchase shares of 'ABC Limited' at the specified exercise price on exercise of the option

**Put options** – the right to sell a specified quantity of the underlying at a fixed exercise price on or before the expiration date

**Example:** The holder of 'ABC' put option has the right to sell shares of 'ABC Limited' at the specified exercise price on exercise of the option

**Option holder** – the person who buys the right conveyed by the option

**Option writer** – is obligated if and when assigned an exercise to perform according to the terms of the option, also referred to as option seller.

**Exercise price** – is the price at which the contract is settled. In the case of options settled by delivery, is the price at which the option holder of the call option has the right to purchase or the price at which the option holder of the put option has the right to sell the underlying, as the case may be. Exercise price is also referred to as 'Strike price'. In the case of cash settled option, exercise price is the base for the determination of the amount of cash, if any, that the option holder is entitled to receive upon exercise.

**Options settled by delivery** – gives the owner the right to receive delivery (if it is a call) or to make the delivery (if it is a put), of the underlying when the option is exercised.

**Cash settled options** – gives the owner the right to receive a cash payment based on the difference between a determined value of the underlying at the time of exercise and the fixed exercise price of the option.

**Example:** You bought Nifty June call at a strike price of 4500. On expiry of June options, the expiration level was 4530. The cash settlement will be ₹30 per Nifty and for one contract, ₹1500 (i.e.30\*50, the minimum contract size)

**Assigned writer** – Option writer who has been assigned an exercise is known as an assigned writer

**Expiration date** – the date on which the option expires. If an option has not been exercised prior to its expiration, it ceases to exist after the expiration date, i.e. the option holder shall no longer have any right and the option, no value.

**Style of option** - refers to the time at / within which the option is exercisable. Two different styles of options are: American and European

**American style** – Options which may be exercised at any time prior up to their expiration date.

**European style** – Options which may be exercised only on the expiration date.

**Premium** – the price that the holder of an option pays and the writer of an option receives for the rights conveyed by the option. The premiums are not fixed by the Exchange and are subject to fluctuations in response to market and economic forces. The factors affecting pricing of an option include current value of the underlying, the exercise price, current values of futures on the underlying, style of option, individual opinion and estimates of the future volatility of the underlying, historical volatility of the underlying, the time remaining till expiration, cash dividends payable on the underlying stock, current interest rates, depth of the market, available information, etc.

**Opening transaction** – A purchase or a sale transaction by which a person establishes or increases a position either as the holder or the writer of an option.

**Closing transaction** - A transaction by which a person reduces or cancels out previous position either as the holder or the writer of that option. For example, an investor, at some point prior to expiration, may make an offsetting sale of an identical option, if he is an option holder or make an offsetting purchase of an identical option, if he is an option writer.

**Long and short** – Long refers to a position as the holder of an option. Short refers to a position as the writer of an option.

**At the money** – means that the current market value of the underlying is the same as the exercise price of the option

**Example** – If the current Nifty is 4500, Nifty 4500 call (strike price is 4500), is at the money.

**In the money** – A call option is said to be in the money if the current market value of the underlying is above the exercise price of the option.

A put option is said to be in the money if the current market value of the underlying is below the exercise price of the option.

**Example** – If the current Nifty is 4500, Nifty 4400 call (strike price is 4400) and Nifty 4600 put (strike price is 4600) are in the money.

**Out of the money** - A call option is said to be out of the money if the current market value of the underlying is below the exercise price of the option. A put option is said to be out of the money if the current market value of the underlying is above the exercise price of the option.

**Example** – If the current Nifty is 4500, Nifty 4600 call (strike price is 4600) and Nifty 4400 put (strike price is 4400) are out of the money.

**Intrinsic value and time value** – The premium of the option may be assumed to consist of two components – intrinsic value and time value. Intrinsic value reflects the amount, if any, by which an option is in the money. Time value is the premium of the option, which is in addition to its intrinsic value.

**Example:** If the current Nifty is 4500, Nifty 4450 call (strike price is 4450) trading at a premium of ₹ 20 reflects an intrinsic value of ₹ 50 and time value of ₹ 70 per Nifty.

### Have a view on the market?

**Assumption 1:** Bullish on the market over the short term

**Possible Action by you:** Buy Nifty calls

**Example:** Current Nifty is 4000. You buy one contract of Nifty near month calls for ₹ 60 each. The strike price is 4100, i.e. 2.5% out of the money. The premium paid by you will be ( ₹ 60 \* 50) Rs.3000. Given these, your break-even level Nifty is 4160 (4100 + 60). If at expiration Nifty advances by 5%, i.e. 4200, then

Nifty expiration level	4200.00
Less Strike Price	4100.00
Option value	100.00 (4200 - 4100)
Less Purchase price	60.00
Profit per Nifty	40.00
Profit on the contract	2000 (40* 50)

**Note:**

(1) If Nifty is at or below 4100 at expiration, the call holder would not find it profitable to exercise the option and would lose the entire premium, i.e. ₹ 3000 in this example. If at expiration, Nifty is between 4100 (the strike price) and 4160 (breakeven), the holder could exercise the calls and receive the amount by which the index level exceeds the strike price. This would offset some of the cost.

(2) The holder, depending on the market condition and his perception, may sell the call even before expiry.

**Assumption 2:** Bearish on the market over the short term

**Possible Action by you:** Buy Nifty puts

**Example:** Nifty in the cash market is 4000. You buy one contract of Nifty near month puts for ₹ 30 each. The strike price is 3900, i.e. 2.5% out of the

money. The premium paid by you will be ₹ 1500 (30\*50). Given these, your break-even level Nifty is 3870 (i.e. strike price less the premium). If at expiration Nifty declines by 5%, i.e. 3800, then

Put Strike Price	3900
Nifty expiration level	3800
Option value	100 (3900 - 3800)
Less Purchase price	30
Profit per Nifty	70
Profit on the contract	3500 (70* 50)

**Note:**

1. If Nifty is at or above the strike price 3900 at expiration, the put holder would not find it profitable to exercise the option and would lose the entire premium, i.e. ₹ 1500 in this example. If at expiration, Nifty is between 3900 (the strike price) and 3870 (breakeven), the holder could exercise the puts and receive the amount by which the index level exceeds the strike price. This would offset some of the cost.

2. The holder, depending on the market condition and his perception, may sell the put even before expiry.

**Assumption 3:** You are concerned about a downturn in the short term in the market and its effect on your portfolio. The portfolio has performed well and you expect it to continue to appreciate over the long term but would like to protect existing profits or prevent further losses.

**Possible Action:** Buy Nifty puts.

**Example:** You held a portfolio with say, a single stock, SAIL valued at ₹ 10 Lakhs (@ ₹ 290 each share). Beta of SAIL is 3.02. Current Nifty is at 4000.

Nifty near month puts of strike price 3900 is trading at ₹ 30. To hedge, you bought 15 puts [750 Nifties, equivalent to ₹ 10 lakhs \*3.02 (Beta of SAIL) or ₹ 3020000]. The premium paid by you is ₹ 22500, (i.e. 750 \* 30). If at expiration Nifty declines to 3800, and SAIL falls to ₹ 275, then

Put Strike Price	3900
Nifty expiration level	3800
Option value	100 (3900-3800)
Less Purchase price	30
Profit per Nifty	70
Profit on the contract	52500 (70* 750)
Loss on SAIL ₹	51724
Net profit ₹	776

**Note:** For advanced applications of Nifty options you may like to consult your trading member.