Preface

The **National Stock Exchange of India Ltd. (NSE)**, set up in the year 1993, is today the largest stock exchange in India and a preferred exchange for trading in equity, debt and derivatives instruments by investors. NSE has set up a sophisticated electronic trading, clearing and settlement platform and its infrastructure serves as a role model for the securities industry. The standards set by NSE in terms of market practices; products and technology have become industry benchmarks and are being replicated by many other market participants. NSE has four broad segments Wholesale Debt Market Segment (commenced in June 1994), Capital Market Segment (commenced in November 1994) Futures and Options Segment (commenced June 2000) and the Currency Derivatives segment (commenced in August 2008). Various products which are traded on the NSE include, equity shares, bonds, debentures, warrants, exchange traded funds, mutual funds, government securities, futures and options on indices & single stocks and currency futures. Today NSE's share to the total equity market turnover in India averages around 72% whereas in the futures and options market this share is around 99%.

At NSE, it has always been our endeavour to continuously upgrade the skills and proficiency of the Indian investor. Exchange-traded options form an important class of derivatives which have standardized contract features and trade on public exchanges, facilitating trading among investors. They provide settlement guarantee by the Clearing Corporation thereby reducing counterparty risk. Options can be used for hedging, taking a view on the future direction of the market or for arbitrage. Options are also helpful for implementing various trading strategies such as straddle, strangle, butterfly, collar etc. which can help in generating income for investors under various market conditions.

This module is being introduced to explain some of the important and basic Options strategies. The module which would be of interest to traders, investors, students and anyone interested in the options markets. However, it is advisable to have a good knowledge about the basics of Options or clear the NCFM Derivatives Markets (Dealers) Module before taking up this module. To get a better clarity on the strategies, it is important to read the examples and the pay-off schedules. The pay-off schedules can be worked out using a simple excel spreadsheet for better understanding.

We hope readers find this module a valuable addition which aids in understanding various Options Trading Strategies.

OPTIONS

1. INTRODUCTION TO OPTIONS

An **option** is a contract written by a seller that conveys to the buyer the right — but not the obligation — to buy (in the case of a *call* option) or to sell (in the case of a *put* option) a particular asset, at a particular price (*Strike price / Exercise price*) in future. In return for granting the option, the seller collects a payment (the *premium*) from the buyer. Exchange-traded options form an important class of options which have standardized contract features and trade on public exchanges, facilitating trading among large number of investors. They provide settlement guarantee by the Clearing Corporation thereby reducing counterparty risk. Options can be used for hedging, taking a view on the future direction of the market, for arbitrage or for implementing strategies which can help in generating income for investors under various market conditions.

1.1 OPTION TERMINOLOGY

- ***Index options:*** These options have the index as the underlying. In India, they have a European style settlement. Eg. Nifty options, Mini Nifty options etc.

- ***Stock options:*** Stock options are options on individual stocks. A stock option contract gives the holder the right to buy or sell the underlying shares at the specified price. They have an American style settlement.

- ***Buyer of an option:*** The buyer of an option is the one who by paying the option premium buys the right but not the obligation to exercise his option on the seller/writer.

- ***Writer / seller of an option:*** The writer / seller of a call/put option is the one who receives the option premium and is thereby obliged to sell/buy the asset if the buyer exercises on him.

- ***Call option:*** A call option gives the holder the right but not the obligation to buy an asset by a certain date for a certain price.

- ***Put option:*** A put option gives the holder the right but not the obligation to sell an asset by a certain date for a certain price.

- ***Option price/premium:*** Option price is the price which the option buyer pays to the option seller. It is also referred to as the option premium.

- ***Expiration date:*** The date specified in the options contract is known as the expiration date, the exercise date, the strike date or the maturity.

- ***Strike price:*** The price specified in the options contract is known as the strike price or the exercise price.

- ***American options:*** American options are options 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 itself.

- ***In-the-money option:*** An in-the-money (ITM) option is an option that would lead to a positive cashflow to the holder if it were exercised immediately. A call option on the index is said to be in-the-money when the current index stands at a level higher than the strike price (i.e. spot price > strike price). If the index is much higher than the strike price, the call is said to be deep ITM. In the case of a put, the put is ITM if the index is below the strike price.

- ***At-the-money option:*** An at-the-money (ATM) option is an option that would lead to zero cashflow if it were exercised immediately. An option on the index is at-the-money when the current index equals the strike price (i.e. spot price = strike price).

- ***Out-of-the-money option****:* An out-of-the-money (OTM) option is an option that would lead to a negative cashflow if it were exercised immediately. A call option on the index is out-of-the-money when the current index stands at a level which is less than the strike price (i.e. spot price < strike price). If the index is much lower than the strike price, the call is said to be deep OTM. In the case of a put, the put is OTM if the index is above the strike price.

- ***Intrinsic value of an option****:* The option premium can be broken down into two components - intrinsic value and time value. The intrinsic value of a call is the amount the option is ITM, if it is ITM. If the call is OTM, its intrinsic value is zero. Putting it another way, the intrinsic value of a call is *Max[0, (S_t — K)]* which means the intrinsic value of a call is the greater of 0 or *(S_t — K).* Similarly, the intrinsic value of a put is *Max[0, K* — S_t], i.e. the greater of 0 or *(K — S_t).* K is the strike price and S_t is the spot price.

- ***Time value of an option:*** The time value of an option is the difference between its premium and its intrinsic value. Both calls and puts have time value. An option that is OTM or ATM has only time value. Usually, the maximum time value exists when the option is ATM. The longer the time to expiration, the greater is an option's time value, all else equal. At expiration, an option should have no time value.

1.2 OPTIONS PAYOFFS

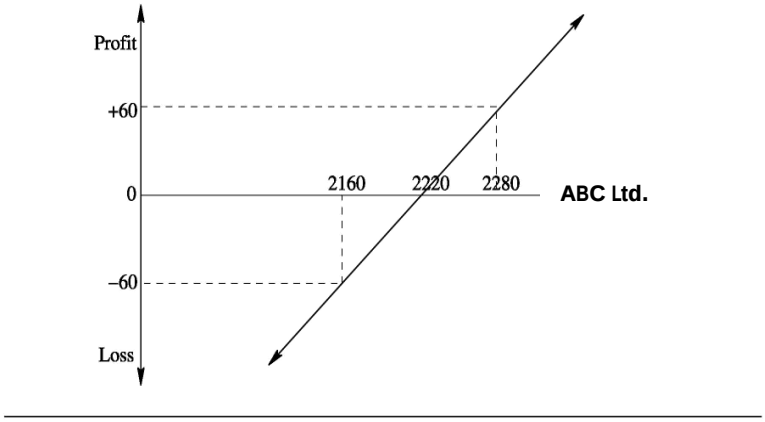
The optionality characteristic of options results in a non-linear payoff for options. In simple words, it means that the losses for the buyer of an option are limited, however the profits are potentially unlimited. For a writer (seller), the payoff is exactly the opposite. His profits are limited to the option premium, however his losses are potentially unlimited. These non-linear payoffs are fascinating as they lend themselves to be used to generate various payoffs by using combinations of options and the underlying. We look here at the six basic payoffs (pay close attention to these pay-offs, since all the strategies in the book are derived out of these basic payoffs).

1.2.1 Payoff profile of buyer of asset: Long asset

In this basic position, an investor buys the underlying asset, ABC Ltd. shares for instance, for Rs. 2220, and sells it at a future date at an unknown price, S_t. Once it is purchased, the investor is said to be "long" the asset. Figure 1.1 shows the payoff for a long position on ABC Ltd.

Figure 1.1 Payoff for investor who went Long ABC Ltd. at Rs. 2220

The figure shows the profits/losses from a long position on ABC Ltd.. The investor bought ABC Ltd. at Rs. 2220. If the share price goes up, he profits. If the share price falls he loses.

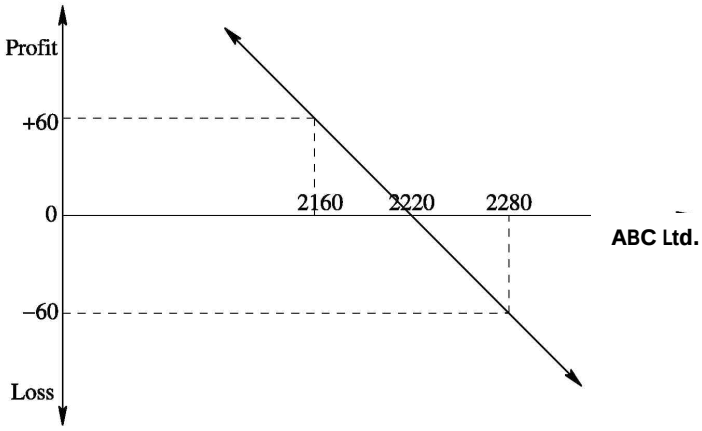


1.2.2 Payoff profile for seller of asset: Short asset

In this basic position, an investor shorts the underlying asset, ABC Ltd. shares for instance, for Rs. 2220, and buys it back at a future date at an unknown price, S_t. Once it is sold, the investor is said to be "short" the asset. Figure 1.2 shows the payoff for a short position on ABC Ltd..

Figure 1.2 Payoff for investor who went Short ABC Ltd. at Rs. 2220

The figure shows the profits/losses from a short position on ABC Ltd.. The investor sold ABC Ltd. at Rs. 2220. If the share price falls, he profits. If the share price rises, he loses.



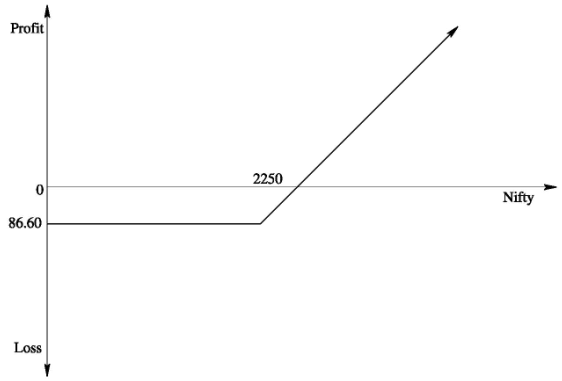
1.2.3 Payoff profile for buyer of call options: Long call

A call option gives the buyer the right to buy the underlying asset at the strike price specified in the option. The profit/loss that the buyer makes on the option depends on the

spot price of the underlying. If upon expiration, the spot price exceeds the strike price, he makes a profit. Higher the spot price, more is the profit he makes. If the spot price of the underlying is less than the strike price, he lets his option expire un-exercised. His loss in this case is the premium he paid for buying the option. Figure 1.3 gives the payoff for the buyer of a three month call option (often referred to as long call) with a strike of 2250 bought at a premium of 86.60.

Figure 1.3 Payoff for buyer of call option

The figure shows the profits/losses for the buyer of a three-month Nifty 2250 call option. As can be seen, as the spot Nifty rises, the call option is in-the-money. If upon expiration, Nifty closes above the strike of 2250, the buyer would exercise his option and profit to the extent of the difference between the Nifty-close and the strike price. The profits possible on this option are potentially unlimited. However if Nifty falls below the strike of 2250, he lets the option expire. His losses are limited to the extent of the premium he paid for buying the option.

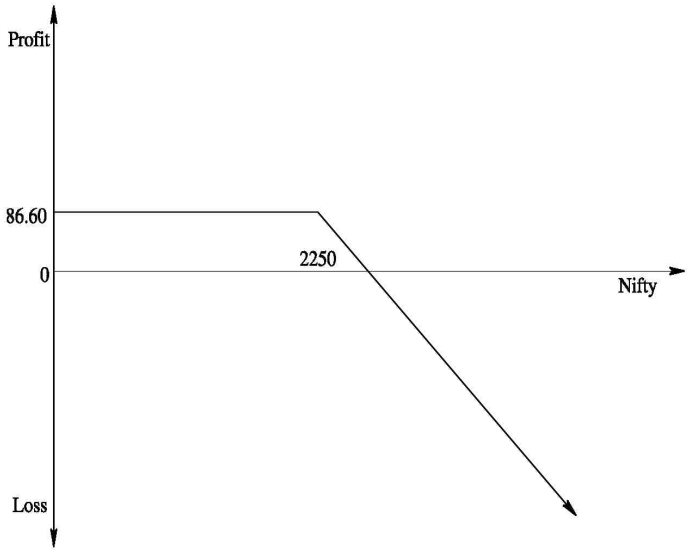


1.2.4 Payoff profile for writer (seller) of call options: Short call

A call option gives the buyer the right to buy the underlying asset at the strike price specified in the option. For selling the option, the writer of the option charges a premium. The profit/loss that the buyer makes on the option depends on the spot price of the underlying. Whatever is the buyer's profit is the seller's loss. If upon expiration, the spot price exceeds the strike price, the buyer will exercise the option on the writer. Hence as the spot price increases the writer of the option starts making losses. Higher the spot price, more is the loss he makes. If upon expiration the spot price of the underlying is less than the strike price, the buyer lets his option expire un-exercised and the writer gets to keep the premium. Figure 1.4 gives the payoff for the writer of a three month call option (often referred to as short call) with a strike of 2250 sold at a premium of 86.60.

Figure 1.4 Payoff for writer of call option

The figure shows the profits/losses for the seller of a three-month Nifty 2250 call option. As the spot Nifty rises, the call option is in-the-money and the writer starts making losses. If upon expiration, Nifty closes above the strike of 2250, the buyer would exercise his option on the writer who would suffer a loss to the extent of the difference between the Nifty-close and the strike price. The loss that can be incurred by the writer of the option is potentially unlimited, whereas the maximum profit is limited to the extent of the up-front option premium of Rs.86.60 charged by him.

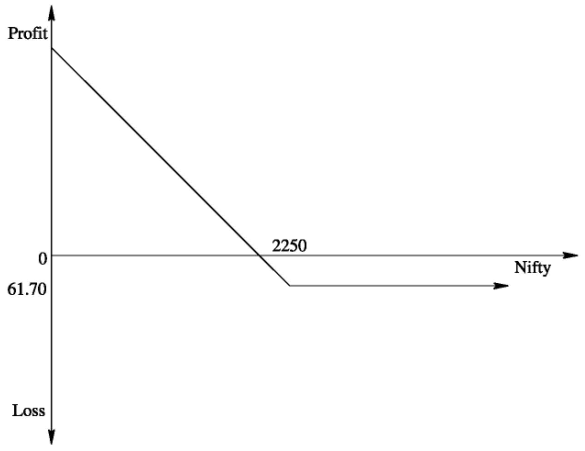


1.2.5 Payoff profile for buyer of put options: Long put

A put option gives the buyer the right to sell the underlying asset at the strike price specified in the option. The profit/loss that the buyer makes on the option depends on the spot price of the underlying. If upon expiration, the spot price is below the strike price, he makes a profit. Lower the spot price, more is the profit he makes. If the spot price of the underlying is higher than the strike price, he lets his option expire un-exercised. His loss in this case is the premium he paid for buying the option. Figure 1.5 gives the payoff for the buyer of a three month put option (often referred to as long put) with a strike of 2250 bought at a premium of 61.70.

Figure 1.5 Payoff for buyer of put option

The figure shows the profits/losses for the buyer of a three-month Nifty 2250 put option. As can be seen, as the spot Nifty falls, the put option is in-the-money. If upon expiration, Nifty closes below the strike of 2250, the buyer would exercise his option and profit to the extent of the difference between the strike price and Nifty-close. The profits possible on this option can be as high as the strike price. However if Nifty rises above the strike of 2250, he lets the option expire. His losses are limited to the extent of the premium he paid for buying the option.

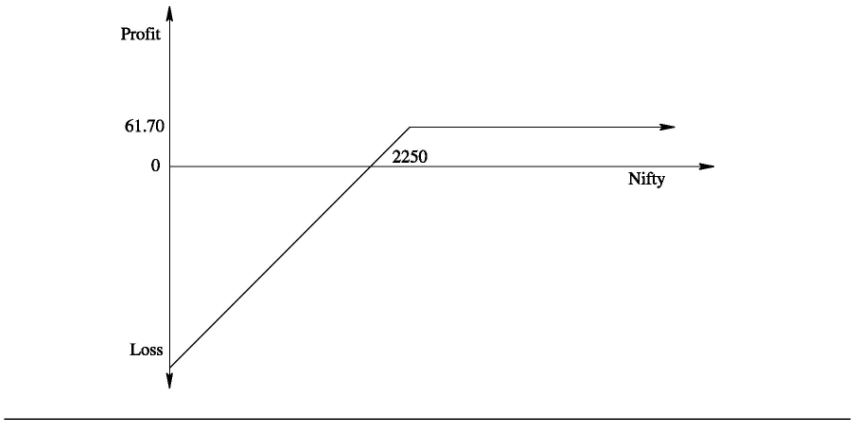


1.2.6 Payoff profile for writer (seller) of put options: Short put

A put option gives the buyer the right to sell the underlying asset at the strike price specified in the option. For selling the option, the writer of the option charges a premium. The profit/loss that the buyer makes on the option depends on the spot price of the underlying. Whatever is the buyer's profit is the seller's loss. If upon expiration, the spot price happens to be below the strike price, the buyer will exercise the option on the writer. If upon expiration the spot price of the underlying is more than the strike price, the buyer lets his option un-exercised and the writer gets to keep the premium. Figure 1.6 gives the payoff for the writer of a three month put option (often referred to as short put) with a strike of 2250 sold at a premium of 61.70.

Figure 1.6 Payoff for writer of put option

The figure shows the profits/losses for the seller of a three-month Nifty 2250 put option. As the spot Nifty falls, the put option is in-the-money and the writer starts making losses. If upon expiration, Nifty closes below the strike of 2250, the buyer would exercise his option on the writer who would suffer a loss to the extent of the difference between the strike price and Nifty-close. The loss that can be incurred by the writer of the option is a maximum extent of the strike price (Since the worst that can happen is that the asset price can fall to zero) whereas the maximum profit is limited to the extent of the up-front option premium of Rs.61.70 charged by him.



Let us now look at some more Options strategies.

STRATEGY 1 : LONG CALL

For aggressive investors who are very bullish about the prospects for a stock / index, buying calls can be an excellent way to capture the upside potential with limited downside risk.

Buying a call is the most basic of all options strategies. It constitutes the first options trade for someone already familiar with buying / selling stocks and would now want to trade options. Buying a call is an easy strategy to understand. When you buy it means you are bullish. Buying a Call means you are very bullish and expect the underlying stock / index to rise in future.

When to Use: Investor is very **bullish** on the stock / index.

Risk: Limited to the Premium. (Maximum loss if market expires at or below the option strike price).

Reward: Unlimited

Breakeven: Strike Price + Premium

Example

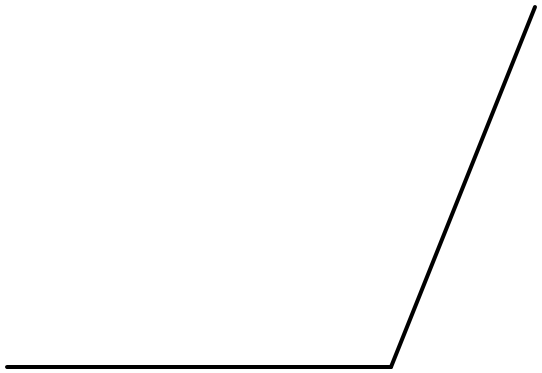
Mr. XYZ is bullish on Nifty on 24th June, when the Nifty is at 4191.10. He buys a call option with a strike price of Rs. 4600 at a premium of Rs. 36.35, expiring on 31st July. If the Nifty goes above 4636.35, Mr. XYZ will make a net profit (after deducting the premium) on exercising the option. In case the Nifty stays at or falls below 4600, he can forego the option (it will expire worthless) with a maximum loss of the premium.

Strategy : Buy Call Option		
	Current Nifty index	4191.10
Call Option	Strike Price (Rs.)	4600
Mr. XYZ Pays	Premium (Rs.)	36.35
	Break Even Point (Rs.) (Strike Price + Premium)	4636.35

The payoff schedule

On expiry Nifty closes at	Net Payoff from Call Option (Rs.)
4100.00	**-36.35**
4300.00	**-36.35**
4500.00	**-36.35**
4636.35	**0**
4700.00	**63.65**
4900.00	**263.65**
5100.00	**463.65**
5300.00	**663.65**

The payoff chart (Long Call)



ANALYSIS: This strategy limits the downside risk to the extent of premium paid by Mr. XYZ (Rs. 36.35). But the potential return is unlimited in case of rise in Nifty. A long call option is the simplest way to benefit if you believe that the market will make an upward move and is the most common choice among first time investors in Options. As the stock price / index rises the long Call moves into profit more and more quickly.

STRATEGY 2 : SHORT CALL

When you buy a Call you are hoping that the underlying stock / index would rise. When you expect the underlying stock / index to fall you do the opposite. When an investor is very bearish about a stock / index and expects the prices to fall, he can sell Call options. This position offers limited profit potential and the possibility of large losses on big advances in underlying prices. Although easy to execute it is a risky strategy since the seller of the Call is exposed to unlimited risk.

A Call option means an Option to buy. Buying a Call option means an investor expects the underlying price of a stock / index to rise in future. Selling a Call option is just the opposite of buying a Call option. Here the seller of the option feels the underlying price of a stock / index is set to fall in the future.

When to use: Investor is very aggressive and he is **very bearish** about the stock / index.

Risk: Unlimited

Reward: Limited to the amount of premium

Break-even Point: Strike Price + Premium

Example:

Mr. XYZ is bearish about Nifty and expects it to fall. He sells a Call option with a strike price of Rs. 2600 at a premium of Rs. 154, when the current Nifty is at 2694. If the Nifty stays at 2600 or below, the Call option will not be exercised by the buyer of the Call and Mr. XYZ can retain the entire premium of Rs. 154.

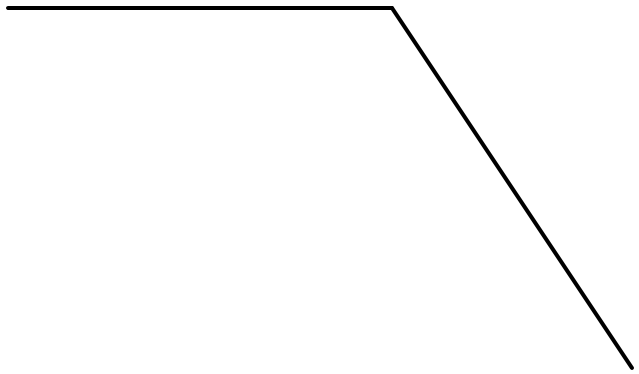
Strategy : Sell Call Option		
	Current Nifty index	2694
Call Option	Strike Price (Rs.)	2600
Mr. XYZ receives	Premium (Rs.)	154
	Break Even Point (Rs.) (Strike Price + Premium)*	2754

* Breakeven Point is from the point of Call Option Buyer.

The payoff schedule

On expiry Nifty closes at	Net Payoff from the Call Options (Rs.)
2400	**154**
2500	**154**
2600	**154**
2700	**54**
2754	**0**
2800	**-46**
2900	**-146**
3000	**-246**

The payoff chart (Short Call)



ANALYSIS: This strategy is used when an investor is very aggressive and has a strong expectation of a price fall (and certainly not a price rise). This is a risky strategy since as the stock price / index rises, the short call loses money more and more quickly and losses can be significant if the stock price / index falls below the strike price. Since the investor does not own the underlying stock that he is shorting this strategy is also called Short Naked Call.

STRATEGY 3 : SYNTHETIC LONG CALL: BUY STOCK, BUY PUT

In this strategy, we purchase a stock since we feel bullish about it. But what if the price of the stock went down. You wish you had some insurance against the price fall. So buy a Put on the stock. This gives you the right to sell the stock at a certain price which is the strike price. The strike price can be the price at which you bought the stock (ATM strike price) or slightly below (OTM strike price).

In case the price of the stock rises you get the full benefit of the price rise. In case the price of the stock falls, exercise the Put Option (remember Put is a right to sell). You have capped your loss in this manner because the Put option stops your further losses. It is a strategy with a limited loss and (after subtracting the Put premium) unlimited profit (from the stock price rise). The result of this strategy looks like a Call Option Buy strategy and therefore is called a Synthetic Call!

But the strategy is not Buy Call Option (Strategy 1). Here you have taken an exposure to an underlying stock with the aim of holding it and reaping the benefits of price rise, dividends, bonus rights etc. and at the same time insuring against an adverse price movement.

In simple buying of a Call Option, there is no underlying position in the stock but is entered into only to take advantage of price movement in the underlying stock.

When to use: When ownership is desired of stock yet investor is concerned about near-term downside risk. The outlook is **conservatively bullish.**

Risk: Losses limited to Stock price + Put Premium – Put Strike price

Reward: Profit potential is unlimited.

Break-even Point: Put Strike Price + Put Premium + Stock Price – Put Strike Price

Example

Mr. XYZ is bullish about ABC Ltd stock. He buys ABC Ltd. at current market price of Rs. 4000 on 4th July. To protect against fall in the price of ABC Ltd. (his risk), he buys an ABC Ltd. Put option with a strike price Rs. 3900 (OTM) at a premium of Rs. 143.80 expiring on 31st July.

Strategy : Buy Stock + Buy Put Option		
Buy Stock (Mr. XYZ pays)	Current Market Price of ABC Ltd. (Rs.)	4000
	Strike Price (Rs.)	3900
Buy Put (Mr. XYZ pays)	Premium (Rs.)	143.80
	Break Even Point (Rs.) (Put Strike Price + Put Premium + Stock Price – Put Strike Price)*	4143.80

* Break Even is from the point of view of Mr. XYZ. He has to recover the cost of the Put Option purchase price + the stock price to break even.

Example :

ABC Ltd. is trading at Rs. 4000 on 4th July.

Buy 100 shares of the Stock at Rs. 4000

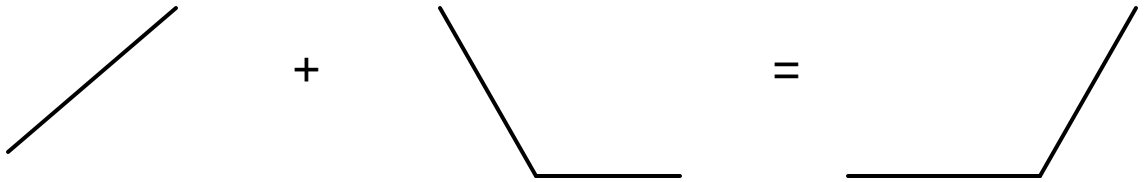
Buy 100 July Put Options with a Strike Price of Rs. 3900 at a premium of Rs. 143.80 per put.

Net Debit (payout)	Stock Bought + Premium Paid Rs. 4000 + Rs. 143.80 Rs. 4,14,380/-
Maximum Loss	Stock Price + Put Premium – Put Strike Rs. 4000 + Rs. 143.80 – Rs. 3900 Rs. 24,380
Maximum Gain	Unlimited (as the stock rises)
Breakeven	Put Strike + Put Premium + Stock Price – Put Strike Rs. 3900 + Rs. 143.80 + Rs. 4000 – Rs. 3900 = Rs. 4143.80

The payoff schedule

ABC Ltd. closes at (Rs.) on expiry	Payoff from the Stock (Rs.)	Net Payoff from the Put Option (Rs.)	Net Payoff (Rs.)
3400.00	-600.00	356.20	**-243.80**
3600.00	-400.00	156.20	**-243.80**
3800.00	-200.00	-43.80	**-243.80**
4000.00	0	-143.80	**-143.80**
4143.80	143.80	-143.80	**0**
4200.00	200.00	-143.80	**56.20**
4400.00	400.00	-143.80	**256.20**
4600.00	600.00	-143.80	**456.20**
4800.00	800.00	-143.80	**656.20**

The payoff chart (Synthetic Long Call)



Buy Stock | Buy Put | Synthetic Long Call

ANALYSIS: This is a low risk strategy. This is a strategy which limits the loss in case of fall in market but the potential profit remains unlimited when the stock price rises. A good strategy when you buy a stock for medium or long term, with the aim of protecting any downside risk. The pay-off resembles a Call Option buy and is therefore called as Synthetic Long Call.

STRATEGY 4 : LONG PUT

Buying a Put is the opposite of buying a Call. When you buy a Call you are bullish about the stock / index. When an investor is bearish, he can buy a Put option. A Put Option gives the buyer of the Put a right to sell the stock (to the Put seller) at a pre-specified price and thereby limit his risk.

A long Put is a **Bearish** strategy. To take advantage of a falling market an investor can buy Put options.

When to use: Investor is bearish about the stock / index.

Risk: Limited to the amount of Premium paid. (Maximum loss if stock / index expires at or above the option strike price).

Reward: Unlimited

Break-even Point: Stock Price - Premium

Example:

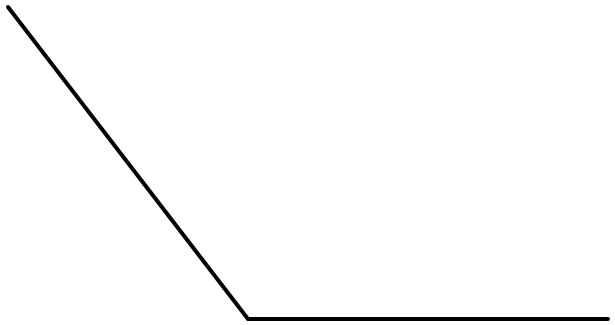
Mr. XYZ is bearish on Nifty on 24th June, when the Nifty is at 2694. He buys a Put option with a strike price Rs. 2600 at a premium of Rs. 52, expiring on 31st July. If the Nifty goes below 2548, Mr. XYZ will make a profit on exercising the option. In case the Nifty rises above 2600, he can forego the option (it will expire worthless) with a maximum loss of the premium.

Strategy : Buy Put Option		
	Current Nifty index	2694
Put Option	Strike Price (Rs.)	2600
Mr. XYZ Pays	Premium (Rs.)	52
	Break Even Point (Rs.) (Strike Price - Premium)	2548

The payoff schedule

On expiry Nifty closes at	Net Payoff from Put Option (Rs.)
2300	**248**
2400	**148**
2500	**48**
2548	**0**
2600	**-52**
2700	**-52**
2800	**-52**
2900	**-52**

The payoff chart (Long Put)



ANALYSIS: A bearish investor can profit from declining stock price by buying Puts. He limits his risk to the amount of premium paid but his profit potential remains unlimited. This is one of the widely used strategy when an investor is bearish.

STRATEGY 5 : SHORT PUT

Selling a Put is opposite of buying a Put. An investor buys Put when he is bearish on a stock. An investor Sells Put when he is **Bullish** about the stock – expects the stock price to rise or stay sideways at the minimum. When you sell a Put, you earn a Premium (from the buyer of the Put). You have sold someone the right to sell you the stock at the strike price. If the stock price increases beyond the strike price, the short put position will make a profit for the seller by the amount of the premium, since the buyer will not exercise the Put option and the Put seller can retain the Premium (which is his maximum profit). But, if the stock price decreases below the strike price, by more than the amount of the premium, the Put seller will lose money. The potential loss being unlimited (until the stock price fall to zero).

When to Use: Investor is very **Bullish** on the stock / index. The main idea is to make a short term income.

Risk: Put Strike Price – Put Premium.

Reward: Limited to the amount of Premium received.

Breakeven: Put Strike Price - Premium

Example

Mr. XYZ is bullish on Nifty when it is at 4191.10. He sells a Put option with a strike price of Rs. 4100 at a premium of Rs. 170.50 expiring on 31st July. If the Nifty index stays above 4100, he will gain the amount of premium as the Put buyer won't exercise his option. In case the Nifty falls below 4100, Put buyer will exercise the option and the Mr. XYZ will start losing money. If the Nifty falls below 3929.50, which is the breakeven point, Mr. XYZ will lose the premium and more depending on the extent of the fall in Nifty.

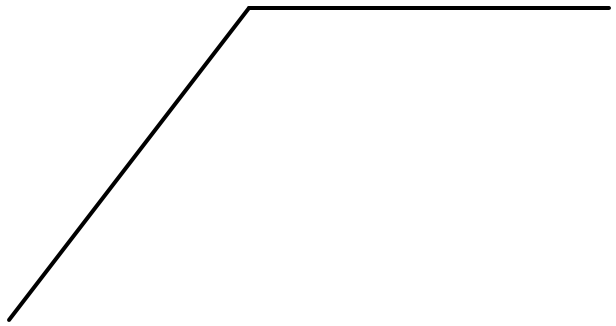
Strategy : Sell Put Option		
	Current Nifty index	4191.10
Put Option	Strike Price (Rs.)	4100
Mr. XYZ receives	Premium (Rs.)	170.5
	Break Even Point (Rs.) (Strike Price - Premium)*	3929.5

* Breakeven Point is from the point of Put Option Buyer.

The payoff schedule

On expiry Nifty Closes at	Net Payoff from the Put Option (Rs.)
3400.00	**-529.50**
3500.00	**-429.50**
3700.00	**-229.50**
3900.00	**-29.50**
3929.50	**0**
4100.00	**170.50**
4300.00	**170.50**
4500.00	**170.50**

The payoff chart (Short Put)



ANALYSIS: Selling Puts can lead to regular income in a rising or range bound markets. But it should be done carefully since the potential losses can be significant in case the price of the stock / index falls. This strategy can be considered as an income generating strategy.

STRATEGY 6 : COVERED CALL

You own shares in a company which you feel may rise but not much in the near term (or at best stay sideways). You would still like to earn an income from the shares. The covered call is a strategy in which an investor Sells a Call option on a stock he owns (netting him a premium). The Call Option which is sold in usually an OTM Call. The Call would not get exercised unless the stock price increases above the strike price. Till then the investor in the stock (Call seller) can retain the Premium with him. This becomes his income from the stock. This strategy is usually adopted by a stock owner who is **Neutral to moderately Bullish** about the stock.

An investor buys a stock or owns a stock which he feel is good for medium to long term but is neutral or bearish for the near term. At the same time, the investor does not mind exiting the stock at a certain price (target price). The investor can sell a Call Option at the strike price at which he would be fine exiting the stock (OTM strike). By selling the Call Option the investor earns a Premium. Now the position of the investor is that of a Call Seller who owns the underlying stock. If the stock price stays at or below the strike price, the Call Buyer (refer to Strategy 1) will not exercise the Call. The Premium is retained by the investor.

In case the stock price goes above the strike price, the Call buyer who has the right to buy the stock at the strike price will exercise the Call option. The Call seller (the investor) who has to sell the stock to the Call buyer, will sell the stock at the strike price. This was the price which the Call seller (the investor) was anyway interested in exiting the stock and now exits at that price. So besides the strike price which was the target price for selling the stock, the Call seller (investor) also earns the Premium which becomes an additional gain for him. This strategy is called as a Covered Call strategy because the Call sold is backed by a stock owned by the Call Seller (investor). The income increases as the stock rises, but gets capped after the stock reaches the strike price. Let us see an example to understand the Covered Call strategy.

When to Use: This is often employed when an investor has a **short-term neutral to moderately bullish** view on the stock he holds. He takes a short position on the Call option to generate income from the option premium.

Since the stock is purchased simultaneously with writing (selling) the Call, the strategy is commonly referred to as "buy-write".

Risk: If the Stock Price falls to zero, the investor loses the entire value of the Stock but retains the premium, since the Call will not be exercised against him. So maximum risk = Stock Price Paid – Call Premium

Upside capped at the Strike price plus the Premium received. So if the Stock rises beyond the Strike price the investor (Call seller) gives up all the gains on the stock.

Reward: Limited to (Call Strike Price – Stock Price paid) + Premium received

Breakeven: Stock Price paid - Premium Received

Example

Mr. A bought XYZ Ltd. for Rs 3850 and simultaneously sells a Call option at an strike price of Rs 4000. Which means Mr. A does not think that the price of XYZ Ltd. will rise above Rs. 4000. However, incase it rises above Rs. 4000, Mr. A does not mind getting exercised at that price and exiting the stock at Rs. 4000 (TARGET SELL PRICE = 3.90% return on the stock purchase price). Mr. A receives a premium of Rs 80 for selling the Call. Thus net outflow to Mr. A is
(Rs. 3850 – Rs. 80) = Rs. 3770. He reduces the cost of buying the stock by this strategy.

If the stock price stays at or below Rs. 4000, the Call option will not get exercised and Mr. A can retain the Rs. 80 premium, which is an extra income.

If the stock price goes above Rs 4000, the Call option will get exercised by the Call buyer. The entire position will work like this :

Strategy : Buy Stock + Sell Call Option		
Mr. A buys the stock XYZ Ltd.	Market Price (Rs.)	3850
Call Options	Strike Price (Rs.)	4000
Mr. A receives	Premium (Rs.)	80
	Break Even Point (Rs.) (Stock Price paid - Premium Received)	3770

Example :

1) The price of XYZ Ltd. stays at or below Rs. 4000. The Call buyer will not exercise the Call Option. Mr. A will keep the premium of Rs. 80. This is an income for him. So if the stock has moved from Rs. 3850 (purchase price) to Rs. 3950, Mr. A makes Rs. 180/- [Rs. 3950 – Rs. 3850 + Rs. 80 (Premium)] = An additional Rs. 80, because of the Call sold.

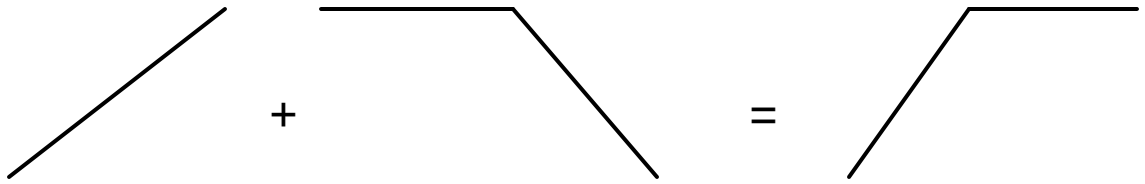
2) Suppose the price of XYZ Ltd. moves to Rs. 4100, then the Call Buyer will exercise the Call Option and Mr. A will have to pay him Rs. 100 (loss on exercise of the Call Option). What would Mr. A do and what will be his pay – off?

a) Sell the Stock in the market at	:	Rs. 4100
b) Pay Rs. 100 to the Call Options buyer	:	- Rs. 100
c) Pay Off (a – b) received	:	Rs. 4000
		(This was Mr. A's target price)
d) Premium received on Selling Call Option	:	Rs. 80
e) Net payment (c + d) received by Mr. A	:	Rs. 4080
f) Purchase price of XYZ Ltd.	:	Rs. 3850
g) Net profit	:	Rs. 4080 – Rs. 3850
		= Rs. 230
h) Return (%)	:	$\frac{\text{(Rs. 4080 – Rs. 3850)}}{\text{Rs. 3850}} \times 100$
		= 5.97% (which is more than the target return of 3.90%).

The payoff schedule

XYZ Ltd. price closes at (Rs.)	Net Payoff (Rs.)
3600	-170
3700	-70
3740	-30
3770	0
3800	30
3900	130
4000	230
4100	230
4200	230
4300	230

The payoff chart (Covered Call)



Buy Stock + Sell Call = Covered Call

STRATEGY 7 : LONG COMBO : SELL A PUT, BUY A CALL

A Long Combo is a **Bullish** strategy. If an investor is expecting the price of a stock to move up he can do a Long Combo strategy. It involves selling an OTM (lower strike) Put and buying an OTM (higher strike) Call. This strategy simulates the action of buying a stock (or a futures) but at a fraction of the stock price. It is an inexpensive trade, similar in pay-off to Long Stock, except there is a gap between the strikes (please see the payoff diagram). As the stock price rises the strategy starts making profits. Let us try and understand Long Combo with an example.

When to Use: Investor is **Bullish** on the stock.

Risk: Unlimited **(**Lower Strike + net debit)

Reward: Unlimited

Breakeven :

Higher strike + net debit

Example:

A stock ABC Ltd. is trading at Rs. 450. Mr. XYZ is bullish on the stock. But does not want to invest Rs. 450. He does a Long Combo. He sells a Put option with a strike price Rs. 400 at a premium of Rs. 1.00 and buys a Call Option with a strike price of Rs. 500 at a premium of Rs. 2. The net cost of the strategy (net debit) is Rs. 1.

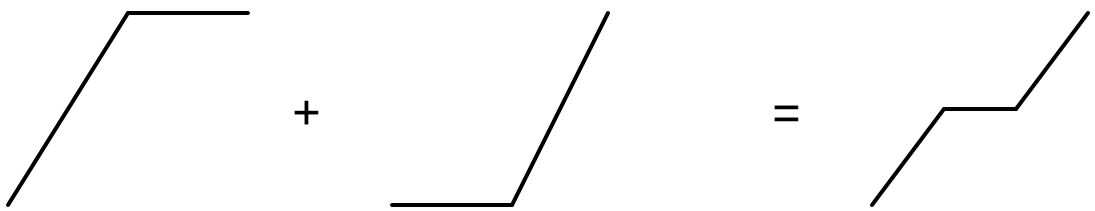
Strategy : Sell a Put + Buy a Call		
ABC Ltd.	Current Market Price (Rs.)	450
Sells Put	Strike Price (Rs.)	400
Mr. XYZ receives	Premium (Rs.)	1.00
Buys Call	Strike Price (Rs.)	500
Mr. XYZ pays	Premium (Rs.)	2.00
	Net Debit (Rs.)	1.00
	Break Even Point (Rs.) (Higher Strike + Net Debit)	Rs. 501

The payoff schedule

ABC Ltd. closes at (Rs.)	Net Payoff from the Put Sold (Rs.)	Net Payoff from the Call purchased (Rs.)	Net Payoff (Rs.)
700	1	198	**199**
650	1	148	**149**
600	1	98	**99**
550	1	48	**49**
501	1	-1	**0**
500	1	-2	**-1**
450	1	-2	**-1**
400	1	-2	**-1**
350	-49	-2	**-51**
300	-99	-2	**-101**
250	-149	-2	**-151**

For a small investment of Re. 1 (net debit), the returns can be very high in a Long Combo, but only if the stock moves up. Otherwise the potential losses can also be high.

The payoff chart (Long Combo)



Sell Put Buy Call Long Combo

STRATEGY 8 : PROTECTIVE CALL / SYNTHETIC LONG PUT

This is a strategy wherein an investor has gone short on a stock and buys a call to hedge. This is an opposite of Synthetic Call (Strategy 3). An investor shorts a stock and buys an ATM or slightly OTM Call. The net effect of this is that the investor creates a pay-off like a Long Put, but instead of having a net debit (paying premium) for a Long Put, he creates a net credit (receives money on shorting the stock). In case the stock price falls the investor gains in the downward fall in the price. However, incase there is an unexpected rise in the price of the stock the loss is limited. The pay-off from the Long Call will increase thereby compensating for the loss in value of the short stock position. This strategy hedges the upside in the stock position while retaining downside profit potential.

When to Use: If the investor is of the view that the markets will go down **(bearish)** but wants to protect against any unexpected rise in the price of the stock.

Risk: Limited. Maximum Risk is Call Strike Price – Stock Price + Premium

Reward: Maximum is Stock Price – Call Premium

Breakeven: Stock Price – Call Premium

Example :

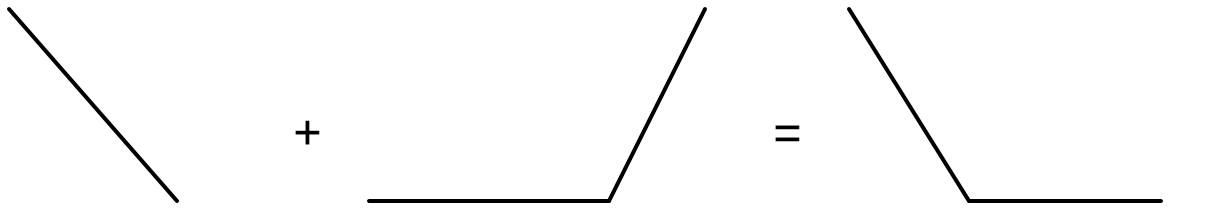
Suppose ABC Ltd. is trading at Rs. 4457 in June. An investor Mr. A buys a Rs 4500 call for Rs. 100 while shorting the stock at Rs. 4457. The net credit to the investor is Rs. 4357 (Rs. 4457 – Rs. 100).

Strategy : Short Stock + Buy Call Option		
Sells Stock (Mr. A receives)	Current Market Price (Rs.)	4457
Buys Call	Strike Price (Rs.)	4500
Mr. A pays	Premium (Rs.)	100
	Break Even Point (Rs.) (Stock Price – Call Premium)	4357

The payoff schedule

ABC Ltd. closes at (Rs.)	Payoff from the stock (Rs.)	Net Payoff from the Call Option (Rs.)	Net Payoff (Rs.)
4100	357	-100	257
4150	307	-100	207
4200	257	-100	157
4300	157	-100	57
4350	107	-100	7
4357	100	-100	0
4400	57	-100	-43
4457	0	-100	-100
4600	-143	0	-143
4700	-243	100	-143
4800	-343	200	-143
4900	-443	300	-143
5000	-543	400	-143

The payoff chart (Synthetic Long Put)



Sell Stock Buy Call Synthetic Long Put

STRATEGY 9 : COVERED PUT

This strategy is opposite to a Covered Call. A Covered Call is a neutral to bullish strategy, whereas a Covered Put is a neutral to **Bearish** strategy. You do this strategy when you feel the price of a stock / index is going to remain range bound or move down. Covered Put writing involves a short in a stock / index along with a short Put on the options on the stock / index.

The Put that is sold is generally an OTM Put. The investor shorts a stock because he is bearish about it, but does not mind buying it back once the price reaches (falls to) a target price. This target price is the price at which the investor shorts the Put (Put strike price). Selling a Put means, buying the stock at the strike price if exercised (Strategy no. 2). If the stock falls below the Put strike, the investor will be exercised and will have to buy the stock at the strike price (which is anyway his target price to repurchase the stock). The investor makes a profit because he has shorted the stock and purchasing it at the strike price simply closes the short stock position at a profit. And the investor keeps the Premium on the Put sold. The investor is covered here because he shorted the stock in the first place.

If the stock price does not change, the investor gets to keep the Premium. He can use this strategy as an income in a neutral market. Let us understand this with an example.

When to Use: If the investor is of the view that the markets are **moderately bearish.**

Risk: Unlimited if the price of the stock rises substantially

Reward: Maximum is (Sale Price of the Stock – Strike Price) + Put Premium

Breakeven: Sale Price of Stock + Put Premium

Example

Suppose ABC Ltd. is trading at Rs 4500 in June. An investor, Mr. A, shorts Rs 4300 Put by selling a July Put for Rs. 24 while shorting an ABC Ltd. stock. The net credit received by Mr. A is Rs. 4500 + Rs. 24 = Rs. 4524.

Strategy : Short Stock + Short Put Option		
Sells Stock (Mr. A receives)	Current Market Price (Rs.)	4500
Sells Put	Strike Price (Rs.)	4300
Mr. A receives	Premium (Rs.)	24
	Break Even Point (Rs.) (Sale price of Stock + Put Premium)	4524

The payoff schedule

ABC Ltd. closes at (Rs.)	Payoff from the stock (Rs.)	Net Payoff from the Put Option (Rs.)	Net Payoff (Rs.)
4000	500	-276	224
4100	400	-176	224
4200	300	-76	224
4300	200	24	224
4400	100	24	124
4450	50	24	74
4500	0	24	24
4524	-24	24	0
4550	-50	24	-26
4600	-100	24	-76
4635	-135	24	-111
4650	-160	24	-136

The payoff chart (Covered Put)

Sell Stock Sell Put Covered Put

STRATEGY 10 : LONG STRADDLE

A Straddle is a volatility strategy and is used when the stock price / index is expected to show large movements. This strategy involves buying a call as well as put on the same stock / index for the same maturity and strike price, to take advantage of a movement in either direction, a soaring or plummeting value of the stock / index. If the price of the stock / index increases, the call is exercised while the put expires worthless and if the price of the stock / index decreases, the put is exercised, the call expires worthless. Either way if the stock / index shows volatility to cover the cost of the trade, profits are to be made. With Straddles, the investor is direction neutral. All that he is looking out for is the stock / index to break out exponentially in either direction.

When to Use: The investor thinks that the underlying stock / index will experience **significant volatility** in the near term.

Risk: Limited to the initial premium paid.

Reward: Unlimited

Breakeven:

- Upper Breakeven Point = Strike Price of Long Call + Net Premium Paid
- Lower Breakeven Point = Strike Price of Long Put - Net Premium Paid

Example

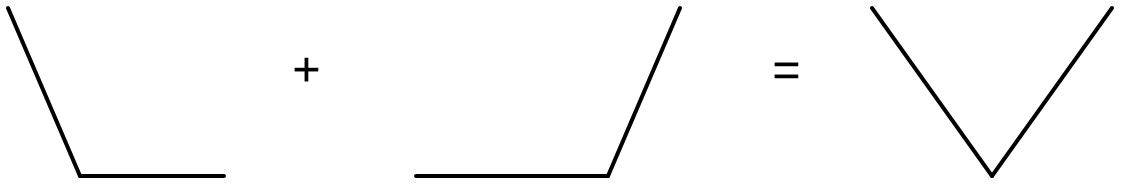
Suppose Nifty is at 4450 on 27th April. An investor, Mr. A enters a long straddle by buying a May Rs 4500 Nifty Put for Rs. 85 and a May Rs. 4500 Nifty Call for Rs. 122. The net debit taken to enter the trade is Rs 207, which is also his maximum possible loss.

Strategy : Buy Put + Buy Call		
Nifty index	Current Value	4450
Call and Put	Strike Price (Rs.)	4500
Mr. A pays	Total Premium (Call + Put) (Rs.)	207
	Break Even Point (Rs.)	4707(U)
	(Rs.)	4293(L)

The payoff schedule

On expiry Nifty closes at	Net Payoff from Put purchased (Rs.)	Net Payoff from Call purchased (Rs.)	Net Payoff (Rs.)
3800	615	-122	493
3900	515	-122	393
4000	415	-122	293
4100	315	-122	193
4200	215	-122	93
4234	181	-122	59
4293	122	-122	0
4300	115	-122	-7
4400	15	-122	-107
4500	-85	-122	-207
4600	-85	-22	-107
4700	-85	78	-7
4707	-85	85	0
4766	-85	144	59
4800	-85	178	93
4900	-85	278	193
5000	-85	378	293
5100	-85	478	393
5200	-85	578	493
5300	-85	678	593

The payoff chart (Long Straddle)



STRATEGY 11 : SHORT STRADDLE

A Short Straddle is the opposite of Long Straddle. It is a strategy to be adopted when the investor feels the market will not show much movement. He sells a Call and a Put on the same stock / index for the same maturity and strike price. It creates a net income for the investor. If the stock / index does not move much in either direction, the investor retains the Premium as neither the Call nor the Put will be exercised. However, incase the stock / index moves in either direction, up or down significantly, the investor's losses can be significant. So this is a risky strategy and should be carefully adopted and only when the expected volatility in the market is limited. If the stock / index value stays close to the strike price on expiry of the contracts, maximum gain, which is the Premium received is made.

When to Use: The investor thinks that the underlying stock / index will experience **very little volatility** in the near term.

Risk: Unlimited

Reward: Limited to the premium received

Breakeven:

- Upper Breakeven Point = Strike Price of Short Call + Net Premium Received
- Lower Breakeven Point = Strike Price of Short Put - Net Premium Received

Example

Suppose Nifty is at 4450 on 27th April. An investor, Mr. A, enters into a short straddle by selling a May Rs 4500 Nifty Put for Rs. 85 and a May Rs. 4500 Nifty Call for Rs. 122. The net credit received is Rs. 207, which is also his maximum possible profit.

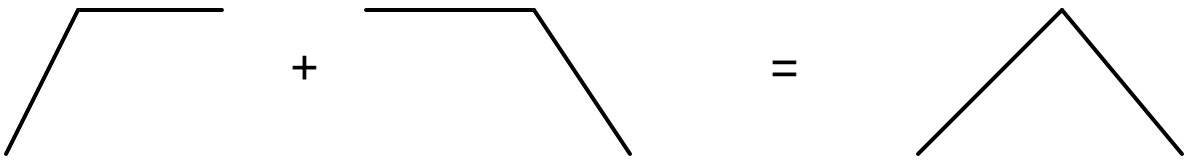
Strategy : Sell Put + Sell Call		
Nifty index	Current Value	4450
Call and Put	Strike Price (Rs.)	4500
Mr. A receives	Total Premium (Call + Put) (Rs.)	207
	Break Even Point (Rs.)*	4707(U)
	(Rs.)*	4293(L)

* From buyer's point of view

The payoff schedule

On expiry Nifty closes at	Net Payoff from Put Sold (Rs.)	Net Payoff from Call Sold (Rs.)	Net Payoff (Rs.)
3800	-615	122	-493
3900	-515	122	-393
4000	-415	122	-293
4100	-315	122	-193
4200	-215	122	-93
4234	-181	122	-59
4293	-122	122	0
4300	-115	122	7
4400	-15	122	107
4500	85	122	207
4600	85	22	107
4700	85	-78	7
4707	85	-85	0
4766	85	-144	-59
4800	85	-178	-93
4900	85	-278	-193
5000	85	-378	-293

The payoff chart (Short Straddle)



Sell Put Sell Call Short Straddle

STRATEGY 12 : LONG STRANGLE

A Strangle is a slight modification to the Straddle to make it cheaper to execute. This strategy involves the simultaneous buying of a slightly out-of-the-money (OTM) put and a slightly out-of-the-money (OTM) call of the same underlying stock / index and expiration date. Here again the investor is directional neutral but is looking for an increased volatility in the stock / index and the prices moving significantly in either direction. Since OTM options are purchased for both Calls and Puts it makes the cost of executing a Strangle cheaper as compared to a Straddle, where generally ATM strikes are purchased. Since the initial cost of a Strangle is cheaper than a Straddle, the returns could potentially be higher. However, for a Strangle to make money, it would require greater movement on the upside or downside for the stock / index than it would for a Straddle. As with a Straddle, the strategy has a limited downside (i.e. the Call and the Put premium) and unlimited upside potential.

When to Use: The investor thinks that the underlying stock / index will experience **very high levels of volatility** in the near term.

Risk: Limited to the initial premium paid

Reward: Unlimited

Breakeven:

- Upper Breakeven Point = Strike Price of Long Call + Net Premium Paid
- Lower Breakeven Point = Strike Price of Long Put - Net Premium Paid

Example

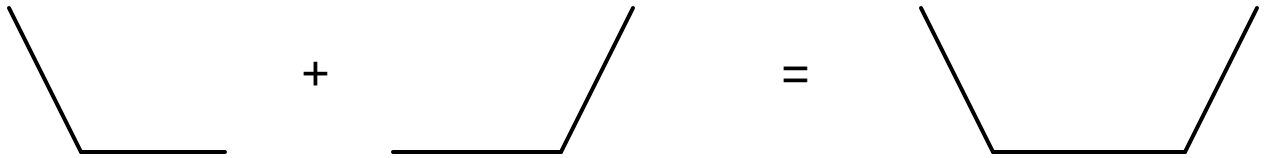
Suppose Nifty is at 4500 in May. An investor, Mr. A, executes a Long Strangle by buying a Rs. 4300 Nifty Put for a premium of Rs. 23 and a Rs 4700 Nifty Call for Rs 43. The net debit taken to enter the trade is Rs. 66, which is also his maxi mum possible loss.

Strategy : Buy OTM Put + Buy OTM Call		
Nifty index	Current Value	4500
Buy Call Option	Strike Price (Rs.)	4700
Mr. A pays	Premium (Rs.)	43
	Break Even Point (Rs.)	4766
Buy Put Option	Strike Price (Rs.)	4300
Mr. A pays	Premium (Rs.)	23
	Break Even Point (Rs.)	4234

The payoff schedule

On expiry Nifty closes at	Net Payoff from Put purchased (Rs.)	Net Payoff from Call purchased (Rs.)	Net Payoff (Rs.)
3800	477	-43	434
3900	377	-43	334
4000	277	-43	234
4100	177	-43	134
4200	77	-43	34
4234	43	-43	0
4300	-23	-43	-66
4400	-23	-43	-66
4500	-23	-43	-66
4600	-23	-43	-66
4700	-23	-43	-66
4766	-23	23	0
4800	-23	57	34
4900	-23	157	134
5000	-23	257	234
5100	-23	357	334
5200	-23	457	434
5300	-23	557	534

The payoff chart (Long Strangle)



Buy OTM Put Buy OTM Call Long Strangle

STRATEGY 13. SHORT STRANGLE

A Short Strangle is a slight modification to the Short Straddle. It tries to improve the profitability of the trade for the Seller of the options by widening the breakeven points so that there is a much greater movement required in the underlying stock / index, for the Call and Put option to be worth exercising. This strategy involves the simultaneous selling of a slightly out-of-the-money (OTM) put and a slightly out-of-the-money (OTM) call of the same underlying stock and expiration date. This typically means that since OTM call and put are sold, the net credit received by the seller is less as compared to a Short Straddle, but the break even points are also widened. The underlying stock has to move significantly for the Call and the Put to be worth exercising. If the underlying stock does not show much of a movement, the seller of the Strangle gets to keep the Premium.

When to Use: This options trading strategy is taken when the options investor thinks that the underlying stock will experience **little volatility** in the near term.

Risk: Unlimited

Reward: Limited to the premium received

Breakeven:

- Upper Breakeven Point = Strike Price of Short Call + Net Premium Received
- Lower Breakeven Point = Strike Price of Short Put - Net Premium Received

Example

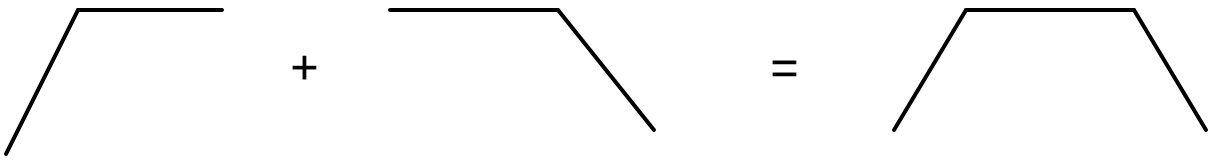
Suppose Nifty is at 4500 in May. An investor, Mr. A, executes a Short Strangle by selling a Rs. 4300 Nifty Put for a premium of Rs. 23 and a Rs. 4700 Nifty Call for Rs 43. The net credit is Rs. 66, which is also his maximum possible gain.

Strategy : Sell OTM Put + Sell OTM Call		
Nifty index	Current Value	4500
Sell Call Option	Strike Price (Rs.)	4700
Mr. A receives	Premium (Rs.)	43
	Break Even Point (Rs.)	4766
Sell Put Option	Strike Price (Rs.)	4300
Mr. A receives	Premium (Rs.)	23
	Break Even Point (Rs.)	4234

The payoff schedule

On expiry Nifty closes at	Net Payoff from Put sold (Rs.)	Net Payoff from Call sold (Rs.)	Net Payoff (Rs.)
3800	-477	43	-434
3900	-377	43	-334
4000	-277	43	-234
4100	-177	43	-134
4200	-77	43	-34
4234	-43	43	0
4300	23	43	66
4400	23	43	66
4500	23	43	66
4600	23	43	66
4700	23	43	66
4766	23	-23	0
4800	23	-57	-34
4900	23	-157	-134
5000	23	-257	-234
5100	23	-357	-334
5200	23	-457	-434
5300	23	-557	-534

The payoff chart (Short Strangle)



Sell OTM Put Sell OTM Call Short Strangle

STRATEGY 14. COLLAR

A Collar is similar to Covered Call (Strategy 6) but involves another leg – buying a Put to insure against the fall in the price of the stock. It is a Covered Call with a limited risk. So a Collar is buying a stock, insuring against the downside by buying a Put and then financing (partly) the Put by selling a Call.

The put generally is ATM and the call is OTM having the same expiration month and must be equal in number of shares. This is a low risk strategy since the Put prevents downside risk. However, do not expect unlimited rewards since the Call prevents that. It is a strategy to be adopted when the investor is **conservatively bullish.** The following example should make Collar easier to understand.

When to Use: The collar is a good strategy to use if the investor is writing covered calls to earn premiums but wishes to protect himself from an unexpected sharp drop in the price of the underlying security.

Risk: Limited

Reward: Limited

Breakeven: Purchase Price of Underlying – Call Premium + Put Premium

Example

Suppose an investor Mr. A buys or is holding ABC Ltd. currently trading at Rs. 4758. He decides to establish a collar by writing a Call of strike price Rs. 5000 for Rs. 39 while simultaneously purchasing a Rs. 4700 strike price Put for Rs. 27.

Since he pays Rs. 4758 for the stock ABC Ltd., another Rs. 27 for the Put but receives Rs. 39 for selling the Call option, his total investment is Rs. 4746.

Strategy : Buy Stock + Buy Put + Sell Call		
ABC Ltd.	Current Market Price (Rs.)	4758
Sell Call Option	Strike Price (Rs.)	5000
Mr. A Receives	Premium (Rs.)	39
Buy Put Option	Strike Price (Rs.)	4700
Mr. A Pays	Premium (Rs.)	27
	Net Premium Received(Rs.)	12
	Break Even Point (Rs.)	4746

Example :

1) If the price of ABC Ltd. rises to Rs. 5100 after a month, then,

    a. Mr. A will sell the stock at Rs. 5100 earning him a profit of Rs. 342 (Rs. 5100 – Rs. 4758)

    b. Mr. A will get exercised on the Call he sold and will have to pay Rs. 100.

    c. The Put will expire worthless.

    d. Net premium received for the Collar is Rs. 12

    e. Adding (a + b + d) = Rs. 342 -100 – 12 = Rs. 254

This is the maximum return on the Collar Strategy.

However, unlike a Covered Call, the downside risk here is also limited :

2) If the price of ABC Ltd. falls to Rs. 4400 after a month, then,

    a. Mr. A loses Rs. 358 on the stock ABC Ltd.

    b. The Call expires worthless

    c. The Put can be exercised by Mr. A and he will earn Rs. 300

    d. Net premium received for the Collar is Rs. 12

    e. Adding (a + b + d) = - Rs. 358 + 300 +12 = - Rs. 46

This is the maximum the investor can loose on the Collar Strategy.

The Upside in this case is much more than the downside risk.

The Payoff schedule

ABC Ltd. closes at (Rs.)	Payoff from Call Sold (Rs.)	Payoff from Put Purchased (Rs.)	Payoff from stock ABC Ltd.	Net payoff (Rs.)
4400	39	273	-358	-46
4450	39	223	-308	-46
4500	39	173	-258	-46
4600	39	73	-158	-46
4700	39	-27	-58	-46
4750	39	-27	-8	4
4800	39	-27	42	54
4850	39	-27	92	104
4858	39	-27	100	112
4900	39	-27	142	154
4948	39	-27	190	202
5000	39	-27	242	254
5050	-11	-27	292	254
5100	-61	-27	342	254
5150	-111	-27	392	254
5200	-161	-27	442	254
5248	-209	-27	490	254
5250	-211	-27	492	254
5300	-261	-27	542	254

The payoff chart (Collar)

Buy Stock Buy Put Sell Call Collar

STRATEGY 15. BULL CALL SPREAD STRATEGY: BUY CALL OPTION, SELL CALL OPTION

A bull call spread is constructed by buying an in-the-money (ITM) call option, and selling another out-of-the-money (OTM) call option. Often the call with the lower strike price will be in-the-money while the Call with the higher strike price is out-of-the-money. Both calls must have the same underlying security and expiration month.

The net effect of the strategy is to bring down the cost and breakeven on a Buy Call (Long Call) Strategy. This strategy is exercised when investor is moderately bullish to bullish, because the investor will make a profit only when the stock price / index rises. If the stock price falls to the lower (bought) strike, the investor makes the maximum loss (cost of the trade) and if the stock price rises to the higher (sold) strike, the investor makes the maximum profit. Let us try and understand this with an example.

When to Use: Investor is **moderately bullish.**

Risk: Limited to any initial premium paid in establishing the position. Maximum loss occurs where the underlying falls to the level of the lower strike or below.

Reward: Limited to the difference between the two strikes minus net premium cost. Maximum profit occurs where the underlying rises to the level of the higher strike or above

Break-Even-Point (BEP): Strike Price of Purchased call + Net Debit Paid

Example:

Mr. XYZ buys a Nifty Call with a Strike price Rs. 4100 at a premium of Rs. 170.45 and he sells a Nifty Call option with a strike price Rs. 4400 at a premium of Rs. 35.40. The net debit here is Rs. 135.05 which is also his maximum loss.

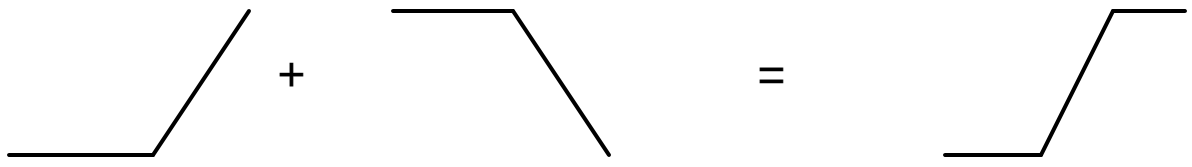
Strategy : Buy a Call with a lower strike (ITM) + Sell a Call with a higher strike (OTM)		
Nifty index	Current Value	4191.10
Buy ITM Call Option	Strike Price (Rs.)	4100
Mr. XYZ Pays	Premium (Rs.)	170.45
Sell OTM Call Option	Strike Price (Rs.)	4400
Mr. XYZ Receives	Premium (Rs.)	35.40
	Net Premium Paid (Rs.)	135.05
	Break Even Point (Rs.)	4235.05

The payoff schedule :

On expiry Nifty Closes at	Net Payoff from Call Buy (Rs.)	Net Payoff from Call Sold (Rs.)	Net Payoff (Rs.)
3500.00	-170.45	35.40	-135.05
3600.00	-170.45	35.40	-135.05
3700.00	-170.45	35.40	-135.05
3800.00	-170.45	35.40	-135.05
3900.00	-170.45	35.40	-135.05
4000.00	-170.45	35.40	-135.05
4100.00	-170.45	35.40	-135.05
4200.00	-70.45	35.40	-35.05
4235.05	-35.40	35.40	0
4300.00	29.55	35.40	64.95
4400.00	129.55	35.40	164.95
4500.00	229.55	-64.60	164.95
4600.00	329.55	-164.60	164.95
4700.00	429.55	-264.60	164.95
4800.00	529.55	-364.60	164.95
4900.00	629.55	-464.60	164.95
5000.00	729.55	-564.60	164.95
5100.00	829.55	-664.60	164.95
5200.00	929.55	-764.60	164.95

The Bull Call Spread Strategy has brought the breakeven point down (if only the Rs. 4100 strike price Call was purchased the breakeven point would have been Rs. 4270.45), reduced the cost of the trade (if only the Rs. 4100 strike price Call was purchased the cost of the trade would have been Rs. 170.45), reduced the loss on the trade (if only the Rs. 4150 strike price Call was purchased the loss would have been Rs. 170.45 i.e. the premium of the Call purchased). However, the strategy also has limited gains and is therefore ideal when markets are moderately bullish.

The payoff chart (Bull Call Spread)



Buy lower strike Call Sell OTM Call Bull Call Spread

STRATEGY 16. BULL PUT SPREAD STRATEGY: SELL PUT OPTION, BUY PUT OPTION

A bull put spread can be profitable when the stock / index is either range bound or rising. The concept is to protect the downside of a Put sold by buying a lower strike Put, which acts as an insurance for the Put sold. The lower strike Put purchased is further OTM than the higher strike Put sold ensuring that the investor receives a net credit, because the Put purchased (further OTM) is cheaper than the Put sold. This strategy is equivalent to the Bull Call Spread but is done to earn a net credit (premium) and collect an income.

If the stock / index rises, both Puts expire worthless and the investor can retain the Premium. If the stock / index falls, then the investor's breakeven is the higher strike less the net credit received. Provided the stock remains above that level, the investor makes a profit. Otherwise he could make a loss. The maximum loss is the difference in strikes less the net credit received. This strategy should be adopted when the stock / index trend is upward or range bound. Let us understand this with an example.

When to Use: When the investor is **moderately bullish.**

Risk: Limited. Maximum loss occurs where the underlying falls to the level of the lower strike or below

Reward: Limited to the net premium credit. Maximum profit occurs where underlying rises to the level of the higher strike or above.

Breakeven: Strike Price of Short Put - Net Premium Received

Example:

Mr. XYZ sells a Nifty Put option with a strike price of Rs. 4000 at a premium of Rs. 21.45 and buys a further OTM Nifty Put option with a strike price Rs. 3800 at a premium of Rs. 3.00 when the current Nifty is at 4191.10, with both options expiring on 31st July.

Strategy : Sell a Put + Buy a Put		
Nifty Index	Current Value	4191.10
Sell Put Option	Strike Price (Rs.)	4000
Mr. XYZ Receives	Premium (Rs.)	21.45
Buy Put Option	Strike Price (Rs.)	3800
Mr. XYZ Pays	Premium (Rs.)	3.00
	Net Premium Received (Rs.)	18.45
	Break Even Point (Rs.)	3981.55

The payoff schedule

On expiry Nifty Closes at	Net Payoff from Put Buy (Rs.)	Net Payoff from Put Sold (Rs.)	Net Payoff (Rs.)
3500.00	297.00	-478.55	-181.55
3600.00	197.00	-378.55	-181.55
3700.00	97.00	-278.55	-181.55
3800.00	-3.00	-178.55	-181.55
3900.00	-3.00	-78.55	-81.55
3981.55	-3.00	3.00	0.00
4000.00	-3.00	21.45	18.45
4100.00	-3.00	21.45	18.45
4200.00	-3.00	21.45	18.45
4300.00	-3.00	21.45	18.45
4400.00	-3.00	21.45	18.45
4500.00	-3.00	21.45	18.45
4600.00	-3.00	21.45	18.45
4700.00	-3.00	21.45	18.45
4800.00	-3.00	21.45	18.45

The strategy earns a net income for the investor as well as limits the downside risk of a Put sold.

The payoff chart (Bull Put Spread)

Buy lower strike Put Sell OTM Put Bull Put Spread

STRATEGY 17 : BEAR CALL SPREAD
STRATEGY: SELL ITM CALL, BUY OTM CALL

The Bear Call Spread strategy can be adopted when the investor feels that the stock / index is either range bound or falling. The concept is to protect the downside of a Call Sold by buying a Call of a higher strike price to insure the Call sold. In this strategy the investor receives a net credit because the Call he buys is of a higher strike price than the Call sold. The strategy requires the investor to buy out-of-the-money (OTM) call options while simultaneously selling in-the-money (ITM) call options on the same underlying stock index. This strategy can also be done with both OTM calls with the Call purchased being higher OTM strike than the Call sold. If the stock / index falls both Calls will expire worthless and the investor can retain the net credit. If the stock / index rises then the breakeven is the lower strike plus the net credit. Provided the stock remains below that level, the investor makes a profit. Otherwise he could make a loss. The maximum loss is the difference in strikes less the net credit received. Let us understand this with an example.

When to use: When the investor is **mildly bearish** on market.

Risk: Limited to the difference between the two strikes minus the net premium.

Reward: Limited to the net premium received for the position i.e., premium received for the short call minus the premium paid for the long call.

Break Even Point: Lower Strike + Net credit

Example:

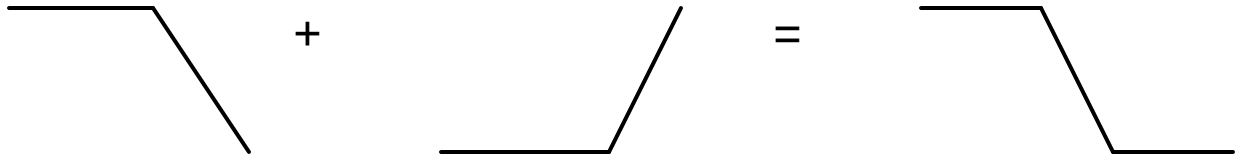
Mr. XYZ is bearish on Nifty. He sells an ITM call option with strike price of Rs. 2600 at a premium of Rs. 154 and buys an OTM call option with strike price Rs. 2800 at a premium of Rs. 49.

Strategy : Sell a Call with a lower strike (ITM) + Buy a Call with a higher strike (OTM)		
Nifty index	Current Value	2694
Sell ITM Call Option	Strike Price (Rs.)	2600
Mr. XYZ receives	Premium (Rs.)	154
Buy OTM Call Option	Strike Price (Rs.)	2800
Mr. XYZ pays	Premium (Rs.)	49
	Net premium received (Rs.)	105
	Break Even Point (Rs.)	2705

On expiry Nifty Closes at	Net Payoff from Call Sold (Rs.)	Net Payoff from Call bought (Rs.)	Net Payoff (Rs.)
2100	154	-49	**105**
2200	154	-49	**105**
2300	154	-49	**105**
2400	154	-49	**105**
2500	154	-49	**105**
2600	154	-49	**105**
2700	54	-49	**5**
2705	49	-49	**0**
2800	-46	-49	**-95**
2900	-146	51	**-95**
3000	-246	151	**-95**
3100	-346	251	**-95**
3200	-446	351	**-95**
3300	-546	451	**-95**

The strategy earns a net income for the investor as well as limits the downside risk of a Call sold.

The payoff chart (Bear Call Spread)



Sell lower strike Call Buy OTM Call Bear Call Spread

STRATEGY 18 : BEAR PUT SPREAD STRATEGY: BUY PUT, SELL PUT

This strategy requires the investor to buy an in-the-money (higher) put option and sell an out-of-the-money (lower) put option on the same stock with the same expiration date. This strategy creates a net debit for the investor. The net effect of the strategy is to bring down the cost and raise the breakeven on buying a Put (Long Put). The strategy needs a Bearish outlook since the investor will make money only when the stock price / index falls. The bought Puts will have the effect of capping the investor's downside. While the Puts sold will reduce the investors costs, risk and raise breakeven point (from Put exercise point of view). If the stock price closes below the out-of-the-money (lower) put option strike price on the expiration date, then the investor reaches maximum profits. If the stock price increases above the in-the-money (higher) put option strike price at the expiration date, then the investor has a maximum loss potential of the net debit.

When to use: When you are **moderately bearish** on market direction

Risk: Limited to the net amount paid for the spread. i.e. the premium paid for long position less premium received for short position.

Reward: Limited to the difference between the two strike prices minus the net premium paid for the position.

Break Even Point: Strike Price of Long Put - Net Premium Paid

Example:

Nifty is presently at 2694. Mr. XYZ expects Nifty to fall. He buys one Nifty ITM Put with a strike price Rs. 2800 at a premium of Rs. 132 and sells one Nifty OTM Put with strike price Rs. 2600 at a premium Rs. 52.

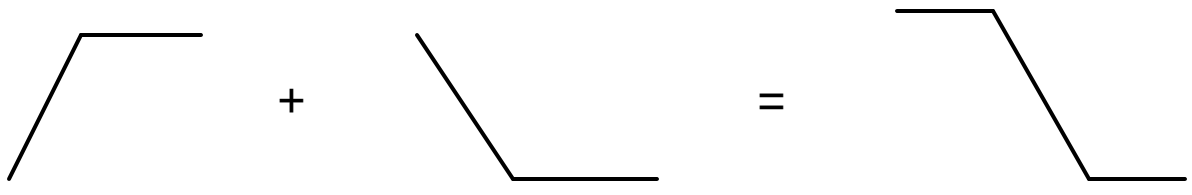
Strategy : BUY A PUT with a higher strike (ITM) + SELL A PUT with a lower strike (OTM)		
Nifty index	Current Value	2694
Buy ITM Put Option	Strike Price (Rs.)	2800
Mr. XYZ pays	Premium (Rs.)	132
Sell OTM Put Option	Strike Price (Rs.)	2600
Mr. XYZ receives	Premium (Rs.)	52
	Net Premium Paid (Rs.)	80
	Break Even Point (Rs.)	2720

The payoff schedule

On expiry Nifty closes at	Net Payoff from Put Buy (Rs.)	Net Payoff from Put Sold (Rs.)	Net payoff (Rs.)
2200	468	-348	**120**
2300	368	-248	**120**
2400	268	-148	**120**
2500	168	-48	**120**
2600	68	52	**120**
2720	-52	52	**0**
2700	-32	52	**20**
2800	-132	52	**-80**
2900	-132	52	**-80**
3000	-132	52	**-80**
3100	-132	52	**-80**

The Bear Put Spread Strategy has raised the breakeven point (if only the Rs. 2800 strike price Put was purchased the breakeven point would have been Rs. 2668), reduced the cost of the trade (if only the Rs. 2800 strike price Put was purchased the cost of the trade would have been Rs. 132), reduced the loss on the trade (if only the Rs. 2800 strike price Put was purchased the loss would have been Rs. 132 i.e. the premium of the Put purchased). However, the strategy also has limited gains and is therefore ideal when markets are moderately bearish.

The payoff chart (Bear Put Spread)



Sell lower strike Put Buy Put Bear Put Spread

STRATEGY 19: LONG CALL BUTTERFLY: SELL 2 ATM CALL OPTIONS, BUY 1 ITM CALL OPTION AND BUY 1 OTM CALL OPTION.

A Long Call Butterfly is to be adopted when the investor is expecting very little movement in the stock price / index. The investor is looking to gain from low volatility at a low cost. The strategy offers a good risk / reward ratio, together with low cost. A long butterfly is similar to a Short Straddle except your losses are limited. The strategy can be done by selling 2 ATM Calls, buying 1 ITM Call, and buying 1 OTM Call options (there should be equidistance between the strike prices). The result is positive incase the stock / index remains range bound. The maximum reward in this strategy is however restricted and takes place when the stock / index is at the middle strike at expiration. The maximum losses are also limited. Let us see an example to understand the strategy.

When to use: When the investor is **neutral on market direction** and **bearish on volatility**.

Risk Net debit paid.

Reward Difference between adjacent strikes minus net debit

Break Even Point:

Upper Breakeven Point = Strike Price of Higher Strike Long Call - Net Premium Paid

Lower Breakeven Point = Strike Price of Lower Strike Long Call + Net Premium Paid

Example:

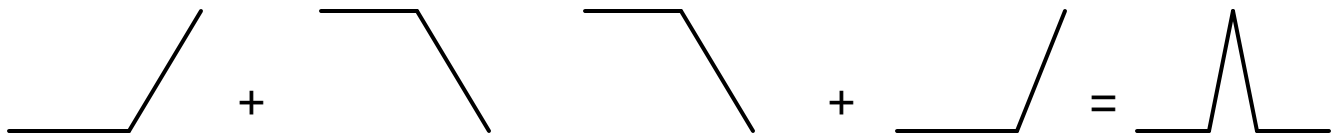
Nifty is at 3200. Mr. XYZ expects very little movement in Nifty. He sells 2 ATM Nifty Call Options with a strike price of Rs. 3200 at a premium of Rs. 97.90 each, buys 1 ITM Nifty Call Option with a strike price of Rs. 3100 at a premium of Rs. 141.55 and buys 1 OTM Nifty Call Option with a strike price of Rs. 3300 at a premium of Rs. 64. The Net debit is Rs. 9.75.

STRATEGY : SELL 2 ATM CALL, BUY 1 ITM CALL OPTION AND BUY 1 OTM CALL OPTION		
Nifty index	Current Value	3200
Sell 2 ATM Call Option	Strike Price (Rs.)	3200
Mr. XYZ receives	Premium (Rs.)	195.80
Buy 1 ITM Call Option	Strike Price (Rs.)	3100
Mr. XYZ pays	Premium (Rs.)	141.55
Buy 1 OTM Call Option	Strike Price (Rs.)	3300
Mr. XYZ pays	Premium (Rs.)	64
	Break Even Point (Rs.)	3290.25
	Break Even Point (Lower) (Rs.)	3109.75

The Payoff Schedule

On expiry Nifty Closes at	Net Payoff from 2 ATM Calls Sold (Rs.)	Net Payoff from 1 ITM Call purchased (Rs.)	Net Payoff from 1 OTM Call purchased (Rs.)	Net Payoff (Rs.)
2700.00	195.80	-141.55	-64	**-9.75**
2800.00	195.80	-141.55	-64	**-9.75**
2900.00	195.80	-141.55	-64	**-9.75**
3000.00	195.80	-141.55	-64	**-9.75**
3100.00	195.80	-141.55	-64	**-9.75**
3109.75	195.80	-131.80	-64	**0**
3200.00	195.80	-41.55	-64	**90.25**
3290.25	15.30	48.70	-64	**0**
3300.00	-4.20	58.45	-64	**-9.75**
3400.00	-204.20	158.45	36	**-9.75**
3500.00	-404.20	258.45	136	**-9.75**
3600.00	-604.20	358.45	236	**-9.75**
3700.00	-804.20	458.45	336	**-9.75**
3800.00	-1004.20	558.45	436	**-9.75**
3900.00	-1204.20	658.45	536	**-9.75**

The payoff chart (Long Call Butterfly)



Buy Lower Strike Call	Sell middle strike call	Sell middle strike call	Buy higher strike call	Long Call Butterfly

STRATEGY 20 : SHORT CALL BUTTERFLY: BUY 2 ATM CALL OPTIONS, SELL 1 ITM CALL OPTION AND SELL 1 OTM CALL OPTION.

A Short Call Butterfly is a strategy for volatile markets. It is the opposite of Long Call Butterfly, which is a range bound strategy. The Short Call Butterfly can be constructed by Selling one lower striking in-the-money Call, buying two at-the-money Calls and selling another higher strike out-of-the-money Call, giving the investor a net credit (therefore it is an income strategy). There should be equal distance between each strike. The resulting position will be profitable in case there is a big move in the stock / index. The maximum risk occurs if the stock / index is at the middle strike at expiration. The maximum profit occurs if the stock finishes on either side of the upper and lower strike prices at expiration. However, this strategy offers very small returns when compared to straddles, strangles with only slightly less risk. Let us understand this with an example.

When to use: You are **neutral on market direction** and **bullish on volatility**. Neutral means that you expect the market to move in either direction - i.e. bullish and bearish.

Risk Limited to the net difference between the adjacent strikes (Rs. 100 in this example) less the premium received for the position.

Reward Limited to the net premium received for the option spread.

Break Even Point:

Upper Breakeven Point = Strike Price of Highest Strike Short Call - Net Premium Received

Lower Breakeven Point = Strike Price of Lowest Strike Short Call + Net Premium Received

Example:

Nifty is at 3200. Mr. XYZ expects large volatility in the Nifty irrespective of which direction the movement is, upwards or downwards. Mr. XYZ buys 2 ATM Nifty Call Options with a strike price of Rs. 3200 at a premium of Rs. 97.90 each, sells 1 ITM Nifty Call Option with a strike price of Rs. 3100 at a premium of Rs. 141.55 and sells 1 OTM Nifty Call Option with a strike price of Rs. 3300 at a premium of Rs. 64. The Net Credit is Rs. 9.75.

STRATEGY

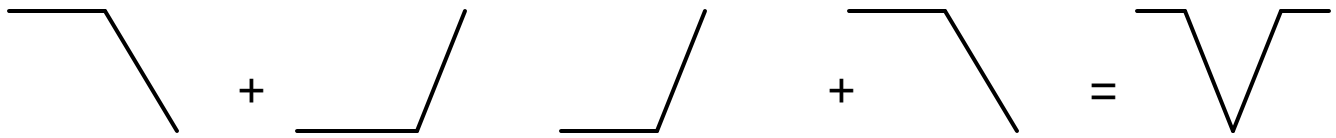
BUY 2 ATM CALL OPTIONS, SELL 1 ITM CALL OPTION AND SELL 1 OTM CALL OPTION.

Nifty index	Current Market Price	3200
Buy 2 ATM Call Option	Strike Price (Rs.)	3200
Mr. XYZ pays	Premium (Rs.)	195.80
Sells 1 ITM Call Option	Strike Price (Rs.)	3100
Mr. XYZ receives	Premium (Rs.)	141.55
Sells 1 OTM Call Option	Strike Price (Rs.)	3300
Mr. XYZ receives	Premium (Rs.)	64
	Break Even Point (Upper) (Rs.)	3290.25
	Break Even Point (Lower) (Rs.)	3109.75

The Payoff Schedule

On expiry Nifty Closes at	Net Payoff from 2 ATM Calls Purchased (Rs.)	Net Payoff from 1 ITM Call sold (Rs.)	Net Payoff from 1 OTM Call sold (Rs.)	Net Payoff (Rs.)
2700.00	-195.80	141.55	64.00	**9.75**
2800.00	-195.80	141.55	64.00	**9.75**
2900.00	-195.80	141.55	64.00	**9.75**
3000.00	-195.80	141.55	64.00	**9.75**
3100.00	-195.80	141.55	64.00	**9.75**
3109.75	-195.80	131.80	64.00	**0**
3200.00	-195.80	41.55	64.00	**-90.25**
3290.25	-15.30	-48.70	64.00	**0**
3300.00	4.20	-58.45	64.00	**9.75**
3400.00	204.20	-158.45	-36.00	**9.75**
3500.00	404.20	-258.45	-136.00	**9.75**
3600.00	604.20	-358.45	-236.00	**9.75**
3700.00	804.20	-458.45	-336.00	**9.75**
3800.00	1004.20	-558.45	-436.00	**9.75**
3900.00	1204.20	-658.45	-536.00	**9.75**

The payoff chart (Short Call Butterfly)



Sell Lower Strike Call | Buy middle strike call | Buy middle strike call | Sell higher strike call | Short Call Butterfly

STRATEGY 21: LONG CALL CONDOR: BUY 1 ITM CALL OPTION (LOWER STRIKE), SELL 1 ITM CALL OPTION (LOWER MIDDLE), SELL 1 OTM CALL OPTION (HIGHER MIDDLE), BUY 1 OTM CALL OPTION (HIGHER STRIKE)

A Long Call Condor is very similar to a long butterfly strategy. The difference is that the two middle sold options have different strikes. The profitable area of the pay off profile is wider than that of the Long Butterfly (see pay-off diagram).

The strategy is suitable in a range bound market. The Long Call Condor involves buying 1 ITM Call (lower strike), selling 1 ITM Call (lower middle), selling 1 OTM call (higher middle) and buying 1 OTM Call (higher strike). The long options at the outside strikes ensure that the risk is capped on both the sides. The resulting position is profitable if the stock / index remains range bound and shows very little volatility. The maximum profits occur if the stock finishes between the middle strike prices at expiration. Let us understand this with an example.

When to Use: When an investor believes that the underlying market will trade in a range with low volatility until the options expire.

Risk Limited to the minimum of the difference between the lower strike call spread less the higher call spread less the total premium paid for the condor.

Reward Limited. The maximum profit of a long condor will be realized when the stock is trading between the two middle strike prices.

Break Even Point:

Upper Breakeven Point = Highest Strike – Net Debit

Lower Breakeven Point = Lowest Strike + Net Debit

Example: Nifty is at 3600. Mr. XYZ expects little volatility in the Nifty and expects the market to remain rangebound. Mr. XYZ buys 1 ITM Nifty Call Options with a strike price of Rs. 3400 at a premium of Rs. 41.25, sells 1 ITM Nifty Call Option with a strike price of Rs. 3500 at a premium of Rs. 26, sells 1 OTM Nifty Call Option with a strike price of Rs. 3700 at a premium of Rs. 9.80 and buys 1 OTM Nifty Call Option with a strike price of Rs. 3800 at a premium of Rs. 6.00. The Net debit is Rs. 11.45 which is also the maximum possible loss.

STRATEGY : BUY 1 ITM CALL OPTION (LOWER STRIKE), SELL 1 ITM CALL OPTION (LOWER MIDDLE), SELL 1 OTM CALL OPTION (HIGHER MIDDLE), BUY 1 OTM CALL OPTION (HIGHER STRIKE)		
Nifty index	Current Value	3600
Buy 1 ITM Call Option	Strike Price (Rs.)	3400
Mr. XYZ pays	Premium (Rs.)	41.25
Sell 1 ITM Call Option	Strike Price (Rs.)	3500
Mr. XYZ receives	Premium (Rs.)	26.00
Sell 1 OTM Call Option	Strike Price (Rs.)	3700
Mr. XYZ receives	Premium (Rs.)	9.80
Buy 1 OTM Call Option	Strike Price (Rs.)	3800
Mr. XYZ pays	Premium (Rs.)	6.00
	Break Even Point (Upper) (Rs.)	3788.55
	Break Even Point (Lower) (Rs.)	3411.45

The Payoff Schedule

On expiry Nifty Closes at	Net Payoff from 1ITM Call purchased (Rs.)	Net Payoff from 1 ITM Call sold (Rs.)	Net Payoff from 1 OTM Call sold (Rs.)	Net Payoff from 1 OTM Call purchased (Rs.)	Net Payoff (Rs.)
3000.00	-41.25	26	9.80	-6	**-11.45**
3100.00	-41.25	26	9.80	-6	**-11.45**
3200.00	-41.25	26	9.80	-6	**-11.45**
3300.00	-41.25	26	9.80	-6	**-11.45**
3400.00	-41.25	26	9.80	-6	**-11.45**
3411.45	-29.80	26	9.80	-6	**0.00**
3500.00	58.75	26	9.80	-6	**88.55**
3600.00	158.75	-74	9.80	-6	**88.55**
3700.00	258.75	-174	9.80	-6	**88.55**
3788.55	347.30	-263	-78.8	-6	**0.00**
3800.00	358.75	-274	-90.2	-6	**-11.45**
3900.00	458.75	-374	-190.2	94	**-11.45**
4000.00	558.75	-474	-290.2	194	**-11.45**
4100.00	658.75	-574	-390.2	294	**-11.45**
4200.00	758.75	-674	-490.2	394	**-11.45**

Example :

Suppose Nifty is at 3600 in June. An investor enters a condor trade by buying a Rs. 3400 strike price call at a premium of Rs. 41.25, sells a Rs. 3500 strike price call at a premium of Rs. 26. sells another call at a strike price of Rs. 3700 at a premium of Rs. 9.80 and buys a call at a strike price of Rs. 3800 at a premium of Rs. 6. The net debit from the trades is Rs. 11.45. This is also his maximum loss.

To further see why Rs. 11.45 is his maximum possible loss, lets examine what happens when Nifty falls to 3200 or rises to 3800 on expiration.

At 3200, all the options expire worthless, so the initial debit taken of Rs. 11.45 is the investors maximum loss.

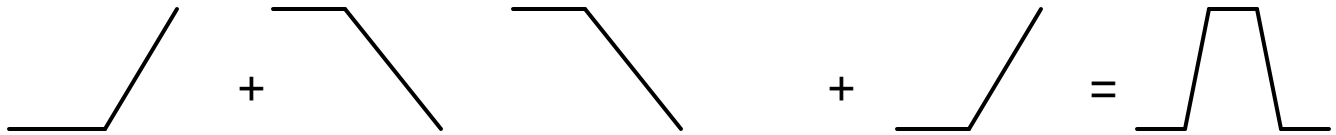
At 3800, the long Rs. 3400 call earns Rs. 358.75 (Rs. 3800 – Rs. 3400 – Rs. 41.25). The two calls sold result in a loss of Rs. 364.20 (The call with strike price of Rs. 3500 makes a loss of Rs. 274 and the call with strike price of Rs. 3700 makes a loss of Rs. 90.20). Finally, the call purchased with a strike price of Rs. 3800 expires worthless resulting in a loss of Rs. 6 (the premium). Total loss (Rs. 358.75 – Rs. 364.20 – Rs. 6) works out to Rs. 11.45. Thus, the long condor trader still suffers the maximum loss that is equal to the initial debit taken when entering the trade.

If instead on expiration of the contracts, Nifty is still at 3600, the Rs. 3400 strike price call purchased and Rs. 3700 strike price call sold earns money while the Rs. 3500 strike price call sold and Rs. 3800 strike price call sold end in losses.

The Rs. 3400 strike price call purchased earns Rs. 158.75 (Rs. 200 – Rs. 41.25). The Rs. 3700 strike price call sold earns the premium of Rs. 9.80 since it expires worthless and does not get exercised. The Rs. 3500 strike price call sold ends up with a loss of Rs. 74 as the call gets exercised and the Rs. 3800 strike price call purchased will expire worthless resulting in a loss of Rs. 6.00 (the premium). The total gain comes to Rs. 88.55 which is also the maximum gain the investor can make with this strategy.

The maximum profit for the condor trade may be low in relation to other trading strategies but it has a comparatively wider profit zone. In this example, maximum profit is achieved if the underlying stock price at expiration is anywhere between Rs. 3500 and Rs. 3700.

The payoff chart (Long Call Condor)



Buy Lower Strike Call	Sell middle strike call	Sell middle strike call	Buy higher strike call	Long Call Condor

STRATEGY 22 : SHORT CALL CONDOR : SHORT 1 ITM CALL OPTION (LOWER STRIKE), LONG 1 ITM CALL OPTION (LOWER MIDDLE), LONG 1 OTM CALL OPTION (HIGHER MIDDLE), SHORT 1 OTM CALL OPTION (HIGHER STRIKE).

A Short Call Condor is very similar to a short butterfly strategy. The difference is that the two middle bought options have different strikes. The strategy is suitable in a volatile market. The Short Call Condor involves selling 1 ITM Call (lower strike), buying 1 ITM Call (lower middle), buying 1 OTM call (higher middle) and selling 1 OTM Call (higher strike). The resulting position is profitable if the stock / index shows very high volatility and there is a big move in the stock / index. The maximum profits occur if the stock / index finishes on either side of the upper or lower strike prices at expiration. Let us understand this with an example.

When to Use: When an investor believes that the underlying market will break out of a trading range but is not sure in which direction.

Risk Limited. The maximum loss of a short condor occurs at the center of the option spread.

Reward Limited. The maximum profit of a short condor occurs when the underlying stock / index is trading past the upper or lower strike prices.

Break Even Point:

Upper Break even Point = Highest Strike – Net Credit

Lower Break Even Point = Lowest Strike + Net Credit

Example: Nifty is at 3600. Mr. XYZ expects high volatility in the Nifty and expects the market to break open significantly on any side. Mr. XYZ sells 1 ITM Nifty Call Options with a strike price of Rs. 3400 at a premium of Rs. 41.25, buys 1 ITM Nifty Call Option with a strike price of Rs. 3500 at a premium of Rs. 26, buys 1 OTM Nifty Call Option with a strike price of Rs. 3700 at a premium of Rs. 9.80 and sells 1 OTM Nifty Call Option with a strike price of Rs. 3800 at a premium of Rs. 6.00. The Net credit is of Rs. 11.45.

STRATEGY : SHORT 1 ITM CALL OPTION (LOWER STRIKE), LONG 1 ITM CALL OPTION (LOWER MIDDLE), LONG 1 OTM CALL OPTION (HIGHER MIDDLE), SHORT 1 OTM CALL OPTION (HIGHER STRIKE)		
Nifty index	Current Value	3600
Sell 1 ITM Call Option	Strike Price (Rs.)	3400
	Premium (Rs.)	41.25
Buy 1 ITM Call Option	Strike Price (Rs.)	3500
	Premium (Rs.)	26.00
Buy 1 OTM Call Option	Strike Price (Rs.)	3700
	Premium (Rs.)	9.80
Sell 1 OTM Call Option	Strike Price (Rs.)	3800
	Premium (Rs.)	6.00
	Break Even Point (Upper) (Rs.)	3788.55
	Break Even Point (Lower) (Rs.)	3411.45

The Payoff Schedule:

On expiry Nifty Closes at	Net Payoff from 1 ITM Call sold (Rs.)	Net Payoff from 1 ITM Call purchased (Rs.)	Net Payoff from 1 OTM Call purchased (Rs.)	Net Payoff from 1 OTM Call sold (Rs.)	Net Payoff (Rs.)
3000.00	41.25	-26	-9.80	6	**11.45**
3100.00	41.25	-26	-9.80	6	**11.45**
3200.00	41.25	-26	-9.80	6	**11.45**
3300.00	41.25	-26	-9.80	6	**11.45**
3400.00	41.25	-26	-9.80	6	**11.45**
3411.45	29.80	-26	-9.80	6	**0**
3500.00	-58.75	-26	-9.80	6	**-88.55**
3600.00	-158.75	74	-9.80	6	**-88.55**
3700.00	-258.75	174	-9.80	6	**-88.55**
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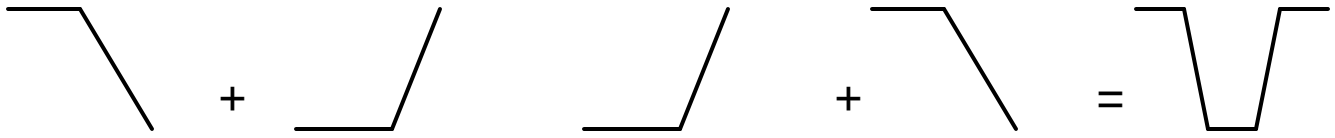
3900.00	-458.75	374	190.20	-94	**11.45**
4000.00	-558.75	474	290.20	-194	**11.45**
4100.00	-658.75	574	390.20	-294	**11.45**
4200.00	-758.75	674	490.20	-394	**11.45**

The payoff chart (Short Call Condor)



Sell Lower Strike Call	Buy middle strike call	Buy middle strike call	Sell higher strike call	Short Call Condor