KCSPL Research- Knowledge Series- Options Trading Strategies

30-Nov-17

Call option- An option contract that gives the owner the right but not the obligation to buy the underlying security at a specified price (its strike price) for a certain fixed period (until its expiration). For the writer of a call option, the contract represents an obligation to sell the underlying product if the option is assigned.

Following are two of the strategies using call options

LONG CALL

When to use: When you are bullish to very bullish on the market.

Profit characteristics: Profit increases as market rises. At expiration, break-even point will be call option exercise price + price paid for call option.

Loss characteristics: Loss limited to amount paid for option. Maximum loss realized if market ends below option exercise price.

Decay characteristics: Position is a wasting asset. As time passes, value of position erodes toward expiration value

Example- MCX Gold futures are currently trading near Rs.29500/10 gram. If one expects price to move to Rs.29800/10 gram, one can buy call option or go long on call.

At the money call will be of strike Rs.29500 and the position can be taken by paying the premium. (If premium is 270, total amount paid will be 270*100= 27000 for one lot)

If the price moves higher, premium value will increase and one can square off the position. If on expiry, futures price is above strike and the premium paid (29770 in this example), one will exercise the option and the position will get converted into one buy position in gold futures. If the price is below strike price, one may not execute the call and lose the premium.

SHORT CALL

When to use: When you are bearish on the market. Sell out of-the-money (higher strike) calls if you are less confident the market will fall, sell at-the-money calls if you are confident the market will stagnate or fall.

Profit characteristics: Profit limited to premium received. At expiration, break-even is exercise price + premium received. Maximum profit realized if market settles at or below strike.

Loss characteristics: Loss potential is open-ended. Loss increases as market rises.
Decay characteristics: Position benefits from time decay. The option seller's profit increases as option loses its time value. Maximum profit from time decay occurs if option is at-the-money

Example- MCX Gold futures are currently trading near Rs.29500/10 gram. If one expects price to move to stagnate of fall towards Rs.29300/10 gram, one can short a call or sell a call option

At the money call will be of strike Rs.29500. The seller receives the premium outrightly (If premium is 270, total amount received will be 270*100= 27000 for one lot)

If gold price declines, premium value will decline and one can square off the position. If on expiry, gold price is below strike price, call buyer may not exercise the option and it will expire and the seller will get the premium. On other hand, if price moves above strike price and buyer exercises, a sell position will be created on gold futures.

Put option- An option contract that gives the owner the right to sell the underlying stock at a specified price (its strike price) for a certain, fixed period (until its expiration). For the writer of a put option, the contract represents an obligation to buy the underlying stock from the option owner if the option is assigned.

LONG PUT

When to use: When you are bearish to very bearish on the market. In general, the more out-of-the-money (lower strike) the put option strike price, the more bearish the strategy.

Profit characteristics: Profit increases as markets fall. At expiration, break-even point will be option exercise price - price paid for option. For each point below break-even, profit increases by additional point.

Loss characteristics: Loss limited to amount paid for option. Maximum loss realized if market ends above option exercise price.

Decay characteristics: Position is a wasting asset. As time passes, value of position erodes toward expiration value.

Example- MCX Gold futures are currently trading near Rs.29400/10 gram. If one expects price to move lower to Rs.29100/10 gram, one can buy put option or go long on put.

At the money put will be of strike Rs.29400 and the position can be taken by paying the premium. (If premium is 250, total amount paid will be 250*100= 25000 for one lot)

If price moves lower, premium value will increase and one can square off the position. If on expiry, futures price is below strike minus the premium paid (29150 in this example), one will exercise the option and the position will get converted into sell position in gold futures. If the price is above strike price, one may not execute the call and lose the premium.

SHORT PUT

When to use: If you firmly believe the market is not going down. Sell out-of-the-money (lower strike) options if you are only somewhat convinced, sell at-the-money options if you are very confident the market will stagnate or rise. If you doubt market will stagnate and are more bullish, sell in-the-money options for maximum profit.

Profit characteristics: Profit limited to premium received from put option sale. At expiration, break-even point is exercise price - premium received. Maximum profit realized if market settles at or above exercise price.

Loss characteristics: Loss potential is open-ended. Loss increases as market falls.

Decay characteristics: Position benefits from time decay. The option seller's profit increases as option loses its time value. Maximum profit from time decay occurs if option is at-the money.

Example- MCX Gold futures are currently trading near Rs.29400/10 gram. If one expects price to stabilize or move up towards Rs.29600/10 gram, one can short a put or sell a put option

At the money put will be of strike Rs.29400. The seller will receive the premium outrightly (If premium is 250, total amount received will be 250*100= 25000 for one lot)

If gold price rises, premium will decline and one can square off the position. If on expiry, gold price is above strike price, buyer of put option may not exercise the option and it will expire and the seller will get the premium. On other hand, if price declines below strike price and buyer exercises, a buy position will be created on gold futures.

COVERED CALL

A covered call is a strategy that involves buying the underlying security and then selling a call option on the same.

When to use- the strategy is used when one is moderately bullish in the market. When one holds or buys a security and expects it to move higher but is not sure that the upside will be significant in the near term, one may sell the call and earn the premium.

Profit characteristics- the profit potential of covered call writing is limited.

Max Profit = Premium Received - Purchase Price of Underlying + Strike Price of Short Call. Max Profit is achieved when price of underlying >= Strike Price of Short Call

Loss characteristics- Potential losses for this strategy can be very large and occurs when the price of the underlying security falls. Loss occurs when Price of Underlying < Purchase Price of Underlying - Premium Received.

Breakeven Point = Purchase Price of Underlying - Premium Received

Example- One holds a buy position in MCX Gold futures contract at Rs.29500/10 gram and expects it to move higher but not significantly. In such a case one may short or sell a call option and get the premium.

One sells an out of money gold call option of say the 29700 strike and gets an outright premium of 160.

Breakeven price in this case will be 29500-160 = 29340.
Max profit will be 160 -29500 + 29700 = 360
Loss starts when price falls below breakeven and is unlimited

On expiration if the price is at Rs.29500, there is no gain on futures, call option expires and one receives the premium.

If price is at Rs.29700/10 gram, Rs.200 is benefit on futures market, call option expires and one receives the premium of Rs.160.

If price rises to Rs.29900/10 gram, Rs.400 is benefit on futures market. Call option is exercised and loss on options is Rs.40 (160 premium received and 200 loss from exercise of call)

If price falls to Rs.29200, Rs.300 is lost on futures market. Call expires and one gets the premium of Rs.160.

SEAGULL OPTIONS

A seagull option is a three-legged option strategy that can provide a hedge against the undesired movement of an underlying asset. A seagull option is structured through the purchase of a call spread and the sale of a put option (or vice versa).

When to use- The strategy is used when one expects price to trade in a broad range. The strategy gives protection in one direction and is considered a cost neutral strategy.

How is it created- If one is concerned about rising price, it can be hedged by using a seagull. This can be done by buying one call option, selling the same expiry call option of higher strike and selling a put of the same expiry but at lower strike.

The price of the commodity is expected to be largely in the range of the sell price of call option and sell price of put option. The strategy is usually undertaken using out of money contracts.

Similarly if one expects commodity to trade with a negative bias but in a narrow range, one can buy a put option, sell the same expiry put option of lower strike and sell a call option of higher price.

Profit Characteristics- This is a cost neutral strategy and profit opportunity is limited.

Loss Characteristics- The strategy hedges only in one direction. Loss opportunity increases if price move in opposite direction beyond the strike at which contract is sold.

Example- MCX Gold December contract is trading at Rs.29300/10 gram. One expect price to trade in a broad range of Rs.29000-29600 in the near term but with a positive bias.

To benefit from the upside movement, one can buy the call of Rs.29400 strike by paying a premium of Rs.225. Since the upside possibility is seen limited, one can reduce the cost by selling a call option. One can sell the Rs.29600 strike call option and get a premium of Rs.150.

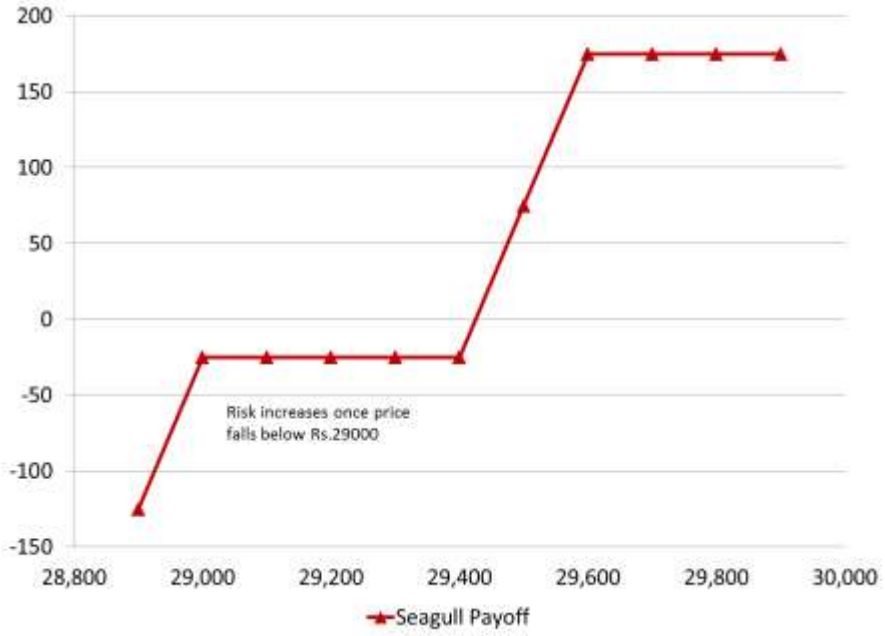
The person also does not expect price to decline substantially and could further reduce cost by selling an out of money put option. A put of strike Rs.29000 is sold and a premium of Rs.50 is received

If the price is between Rs.29400-29600, buy call is in the money and sell call is not executed. Sell put is also not executed. Net premium received offsets premium paid on call position.

If the price is between Rs.29000-29400, buy call will not be exercised and one will lose the premium. Sell call will also not be executed and one will receive the premium. Sell put will also not be initiated.

If price falls below Rs.29000, buy call premium is lost, sell call premium is received but sell put is executed resulting in loss.

If price rises above Rs.29600, buy call is in the money, sell put is expired and sell call is executed.



BULL SPREAD

A bull spread is an option strategy in which maximum profit is attained if the underlying security rises in price. Either calls or puts can be used. The lower strike price is purchased and the higher strike price is sold. The options have the same expiration date.

A bull call spread is an options strategy that involves purchasing call options at a specific strike price while also selling the same number of calls of the same asset and expiration date but at a higher strike. A bull call spread is used when a moderate rise in the price of the underlying asset is expected.

Break-even point= Lower strike price+ Net premium paid

A bull put spread is an options strategy that is used when the investor expects a moderate rise in the price of the underlying asset. This strategy is constructed by purchasing one put option while simultaneously selling another put option with a higher strike price. The goal of this strategy is realized when the price of the underlying stays above the higher strike price, which causes the short option to expire worthless, resulting in the trader keeping the premium.

Break-even point = upper strike price - net premium received

When to use: If you think the market will go up, but with limited upside.

Profit characteristics: Profit limited, reaching maximum if market ends at or above the strike price at which short position is initiated.

Loss characteristics: What is gained by limiting profit potential is mainly a limit to loss if you guessed wrong on market. Maximum loss if market at expiration is at or below the strike price of buy position. With call-vs.-call version, maximum loss is net cost of spread.

Bull Call Spread Example- MCX Gold is trading at Rs.29200/10 gram and one expect price to trade higher. One buys a call of strike Rs.29300 by paying a premium of Rs.225. One is skeptical about the upward momentum and sells a call option of strike Rs.29500 and gets a premium of Rs.170.

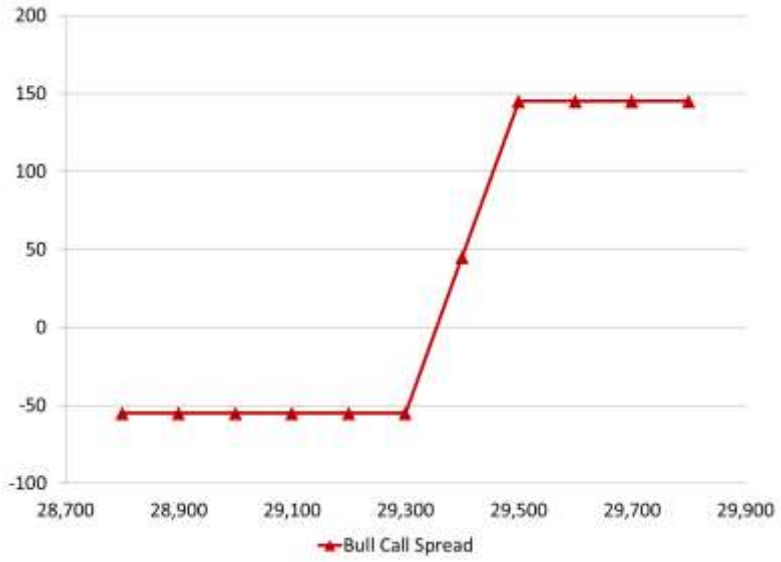
Break-even point= Lower strike price+ Net premium paid
In this case- 29500+170-225= 29445

Maximum profit is High strike - low strike - net premium paid

In this case maximum profit is 29500-29300+170-225= 145

Maximum loss is Net premium paid

In this case maximum loss is 225-170= 55



Bull Put Spread Example- MCX Gold is trading at Rs.29200/10 gram and one expect price to trade higher. One sells a Rs.29400 put and receives a net premium of Rs.410. He also buys a put of Rs.29100 and pays a premium of Rs.200.

Break-even point = upper strike price - net premium received

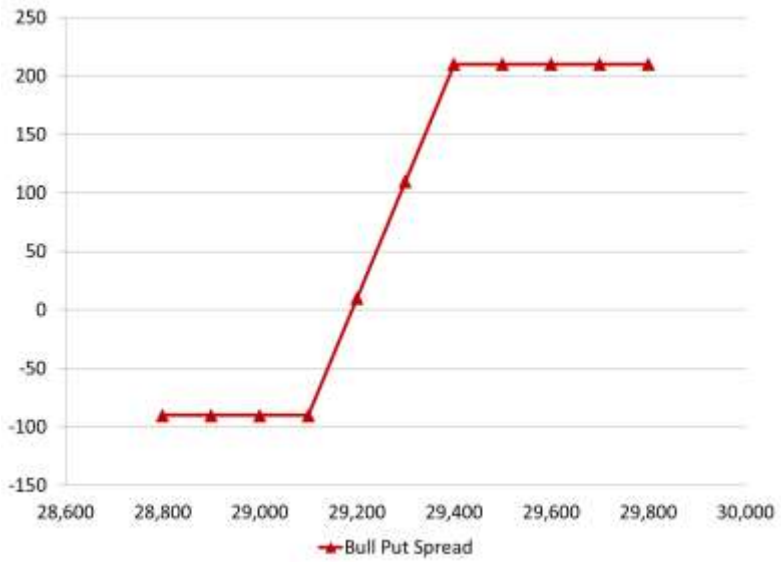
In this case- 29400- (410-200) = 29190

Maximum Gain= net premium received

In this case- 410-200 = 210

Maximum Loss= High strike - low strike - net premium received

In this case- 29400-29100-(410-200) = 90



BEAR SPREAD

A bear spread is an option strategy seeking maximum profit when the price of the underlying security declines. The strategy involves the simultaneous purchase and sale of options; puts or calls can be used. A higher strike price is purchased and a lower strike price is sold. The options should have the same expiration date.

A bear call spread is a limited profit, limited risk options trading strategy that can be used when the options trader is moderately bearish on the underlying security. It is entered by buying call options of a certain strike price and selling the same number of call options of lower strike price (in the money) on the same underlying security with the same expiration month.

A bear put spread is a limited profit, limited risk options trading strategy that can be used when the options trader is moderately bearish on the underlying security. It is entered by buying higher striking in-the-money put options and selling the same number of lower striking out-of-the-money put options on the same underlying security and the same expiration month.

When to use: If you think the market will go down, but with limited downside.

Profit characteristics: Profit limited, reaching maximum at expiration if market is at or below strike price of short position.

If put-vs.-put version used, break-even is at strike price of buy put - net cost of spread.

If call-vs.-call version, break-even is at strike price of sell call + net premium collected.

Loss characteristics: By accepting a limit on profits, you also achieve a limit on losses. Losses, at expiration, increase as market rises to strike price of buy position, where they are at a maximum. With put-vs.-put version, maximum loss is net cost of spread.

Example- Bear Put Spread- MCX Gold is trading near Rs.29300/10 gram and one expects price to go down but not substantially. One can formulate a bear put spread. One buys Rs.29500 Put option by paying a premium of Rs.350. One also sells an Rs.29100 strike put and gets a premium of Rs.200.

Breakeven = long put strike - net debit paid

This strategy breaks even if, at expiration, the stock price is below the upper strike by the amount of the initial outlay (the debit). In that case, the short put would expire worthless, and the long put's intrinsic value would equal the debit.

In this case- 29500- (350-200) = 29350

Maximum Gain- High strike - low strike - net premium paid

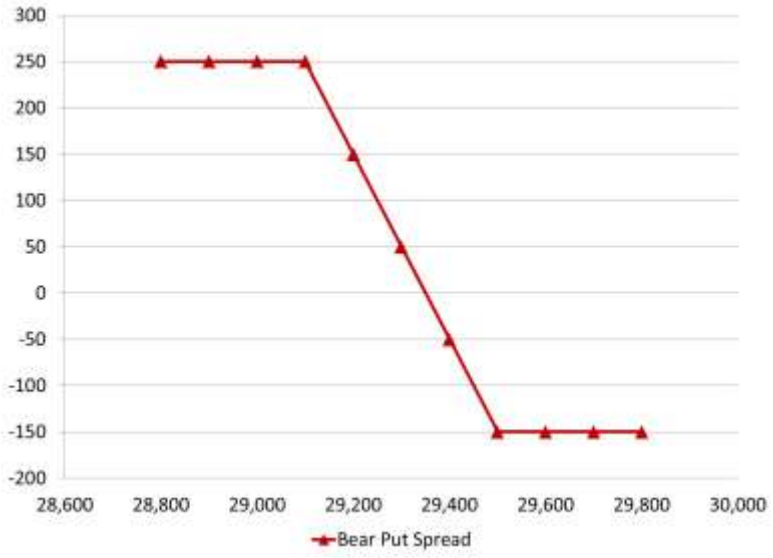
The maximum gain is limited. The best that can happen is for the stock price to be below the lower strike at expiration. The upper limit of profitability is reached at that point, even if the stock were to decline further. Assuming the stock price is below both strike prices at expiration, the investor would exercise the long put component and presumably be assigned on the short put. So, the stock is sold at the higher (long put strike) price and simultaneously bought at the lower (short put strike) price. The maximum profit then is the difference between the two strike prices, less the initial outlay (the debit) paid to establish the spread.

In this case- 29500-29100- (350-200) = 250

Maximum Loss- Net premium paid

The maximum loss is limited. The worst that can happen at expiration is for the stock to be above the higher (long put) strike price. In that case, both put options expire worthless, and the loss incurred is simply the initial outlay for the position (the debit).

In this case- 350-200= 150



Example- Bear Call Spread- MCX Gold is trading near Rs.29300/10 gram and one expects price to go down but not substantially. One can formulate a bear call spread. One buys a call option of Rs.29600/10 gram strike by paying a premium of Rs.150. One also sells an Rs.29100 strike call option and receives 300 premium.

Breakeven = short call strike + net credit received

This strategy breaks even at expiration if the stock price is above the lower strike by the amount of the initial credit received. In that case the long call would expire worthless, and the short call's intrinsic value would equal the net credit.

In this case- 29100+ (300-150) = 29250

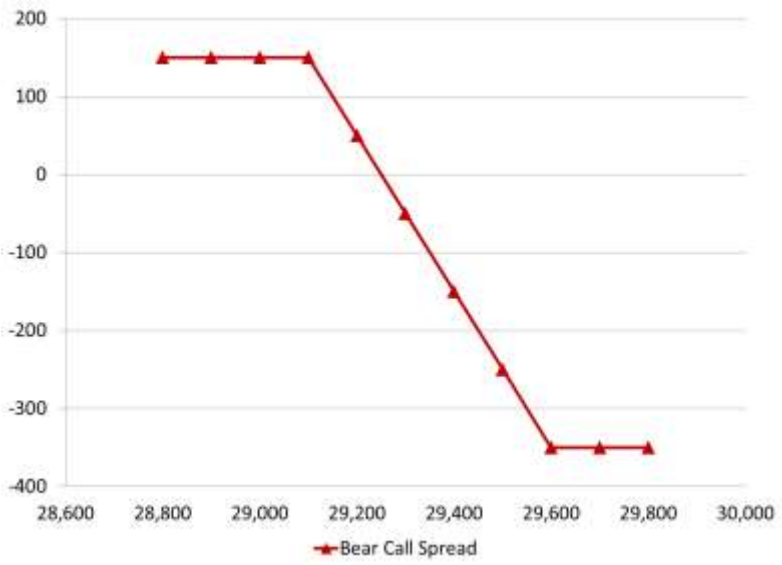
Maximum Gain- Net premium received

The maximum gain is limited. The best that can happen at expiration is for the stock to be below both strike prices. In that case, both the short and long call options expire worthless, and the investor pockets the credit received when putting on the position.

In this case- 300-150= 150

Maximum Loss- High strike - low strike - net premium received
The maximum loss is limited. The worst that can happen at expiration is for the stock price to be above the higher strike. In that case, the investor will be assigned on the short call, now deep-in-the-money, and will exercise the long call. The simultaneous exercise and assignment will mean selling the stock at the lower strike and buying the stock at the higher strike. The maximum loss is the difference between the two strikes, but it is reduced by the net credit received at the outset.

In this case- 29600-29100-150= 350



STRANGLE

A strangle is an options strategy where the investor holds a position in both a call and put with different strike prices but with the same maturity and underlying asset

Long Strangle

The long strangle, also known as buy strangle or simply "strangle", is a neutral strategy in options trading that involve the simultaneous buying of a slightly out-of-the-money put and a slightly out-of-the-money call of the same underlying stock and expiration date.

When to use- The long options strangle is an unlimited profit, limited risk strategy that is taken when the investor thinks that the underlying stock will experience significant volatility in the near term.

Maximum Profit = Unlimited

Large gains for the long strangle option strategy are attainable when the underlying stock price makes a very strong move either upwards or downwards at expiration.

Max Loss = Net Premium Paid

Maximum loss for the long strangle options strategy is hit when the underlying stock price on expiration date is trading between the strike prices of the options bought. At this price, both options expire worthless and the options trader loses the entire initial debit taken to enter the trade.

Breakeven point- There are 2 break-even points for the long strangle position. The breakeven points can be calculated using the following formulae.

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

Example- MCX Gold futures is trading near Rs.29500/10 gram and we expect sharp movement in near term but are not sure about the direction. One may buy a 29600 strike call option by paying a premium of Rs.180. One also buys a 29400 strike Put option by paying a premium of 150.

Upper Breakeven Point = Strike Price of Long Call + Net Premium Paid
In this case- 29600+180= 29780

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

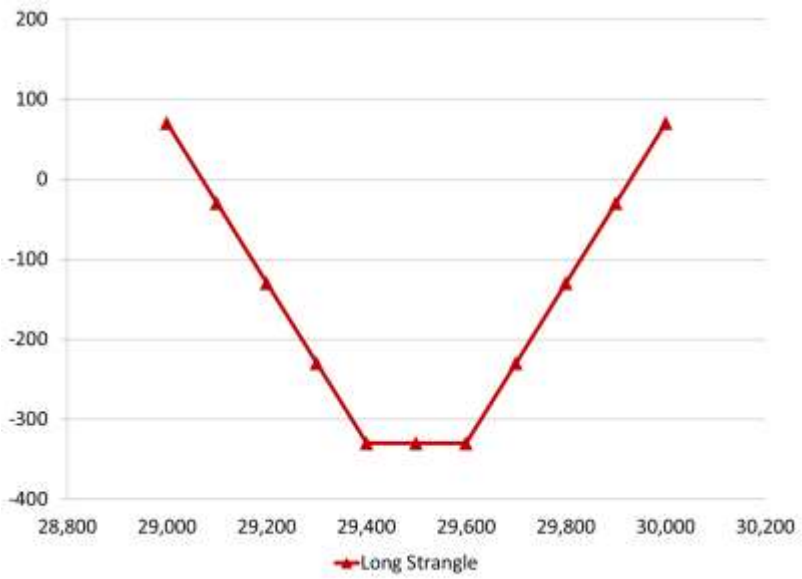
In this case- 29400-150= 29250

Profit Achieved When Price of Underlying > Strike Price of Long Call + Net Premium Paid OR Price of Underlying < Strike Price of Long Put - Net Premium Paid

Profit = Price of Underlying - Strike Price of Long Call - Net Premium Paid OR Strike Price of Long Put - Price of Underlying - Net Premium Paid

Max Loss = Net Premium Paid

In this case- 180+150= 330



Short Strangle

The short strangle option strategy is a limited profit, unlimited risk options trading strategy that is selling a call and selling a put with the same expiration.

When to use- the short strangle option strategy is taken when the investor thinks that the underlying stock will experience little volatility in the near term.

Max Profit = Net Premium Received

Maximum profit for the short strangle occurs when the underlying stock price on expiration date is trading between the strike prices of the options sold. At this price, both options expire worthless and the options trader gets to keep the entire initial credit taken as profit.

Maximum Loss = Unlimited

Large losses for the short strangle can be experienced when the underlying stock price makes a strong move either upwards or downwards at expiration.

Breakeven point- There are 2 break-even points for the short strangle position. The breakeven points can be calculated using the following formulae.

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

Example- MCX Gold futures trading near Rs.29500/10 gram and price is expected to be in a range in the near term. One may sell 29600 strike call option and receive a premium of Rs.180. One may also sell a 29400 strike put option and receive a premium of Rs.150.

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

In this case- 29600+180-29780

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

In this case- 29400-150= 29250

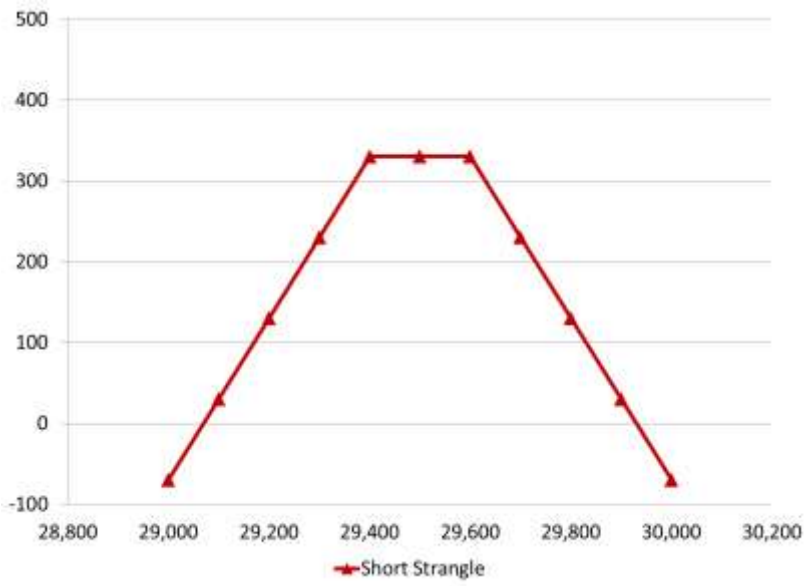
Max Profit = Net Premium Received

In this case- 180+150= 330

Maximum Loss = Unlimited

Loss Occurs When Price of Underlying > Strike Price of Short Call + Net Premium Received OR Price of Underlying < Strike Price of Short Put - Net Premium Received

Loss = Price of Underlying - Strike Price of Short Call - Net Premium Received OR Strike Price of Short Put - Price of Underlying - Net Premium Received + Commissions Paid



STRADDLE

A straddle is an options strategy in which the investor holds a position in both a call and put with the same strike price and expiration date

Long Straddle

The long straddle, also known as buy straddle or simply "straddle", is a neutral strategy in options trading that involve the simultaneously buying of a put and a call of the same underlying stock, striking price and expiration date.

When to use- Long straddle options are unlimited profit, limited risk options trading strategies that are used when one thinks that the underlying securities will experience significant volatility in the near term.

Breakeven Point

There are 2 break-even points for the long straddle position. The breakeven points can be calculated using the following formulae.

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

Maximum Profit = Unlimited

Profit Achieved When Price of Underlying > Strike Price of Long Call + Net Premium Paid OR Price of Underlying < Strike Price of Long Put - Net Premium Paid

Max Loss = Net Premium Paid

Maximum loss for long straddles occurs when the underlying stock price on expiration date is trading at the strike price of the options bought. At this price, both options expire worthless and the options trader loses the entire premium paid to enter the trade.

Example- MCX Gold futures are trading near Rs.29500/10 gram and one expects sharp movement in gold but is unsure about the direction. A long straddle is initiated by buying both a call and put option of 29500 strike. The premium paid on call option is Rs.200. Premium paid on put option is Rs.150.

Breakeven Point

Upper Breakeven Point = Strike Price of Long Call + Net Premium Paid
In this case- 29500+200= 29700

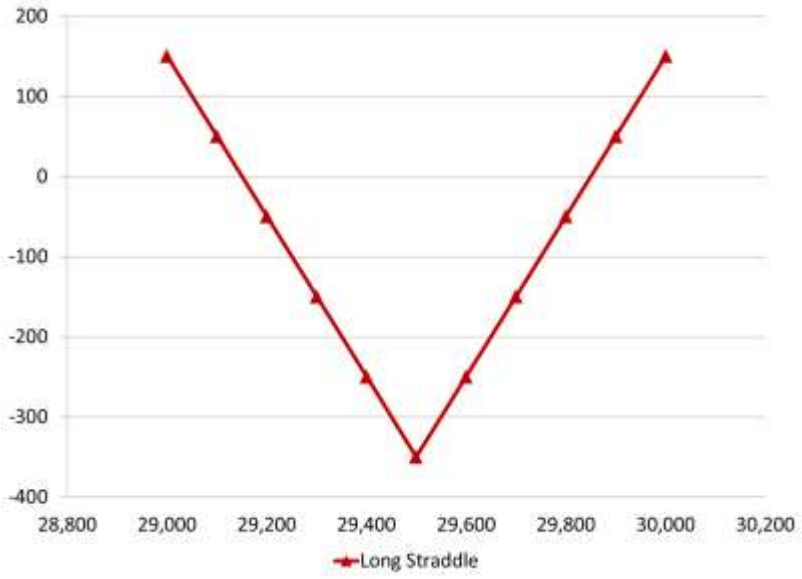
Lower Breakeven Point = Strike Price of Long Put - Net Premium Paid
In this case- 29500-150= 29350

Maximum Profit = Unlimited

In this case, profit will occur only if price moves above Rs.29700 or if price falls below Rs.29350.

Max Loss = Net Premium Paid

In this case- 200+150= 350



Short Straddle

The short straddle or sell straddle is a neutral options strategy that involves the simultaneous selling of a put and a call of the same underlying stock, striking price and expiration date.

When to use- Short straddles are limited profit, unlimited risk options trading strategies that are used when one thinks that the underlying securities will experience little volatility in the near term.

Breakeven Point

There are 2 break-even points for the short straddle position. The breakeven points can be calculated using the following formulae.

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

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

Max Profit = Net Premium Received

Maximum profit for the short straddle is achieved when the underlying stock price on expiration date is trading at the strike price of the options sold. At this price, both options expire worthless and one gets the premium.

Maximum Loss = Unlimited

Loss Occurs When Price of Underlying > Strike Price of Short Call + Net Premium Received OR Price of Underlying < Strike Price of Short Put - Net Premium Received

Example- MCX Gold futures are trading near Rs.29500/10 gram and one expects no major movement. A short straddle is initiated by selling both a call and put option of 29500 strike. Premium received on call option is Rs.200. Premium received on put option is Rs.150.

Breakeven Point

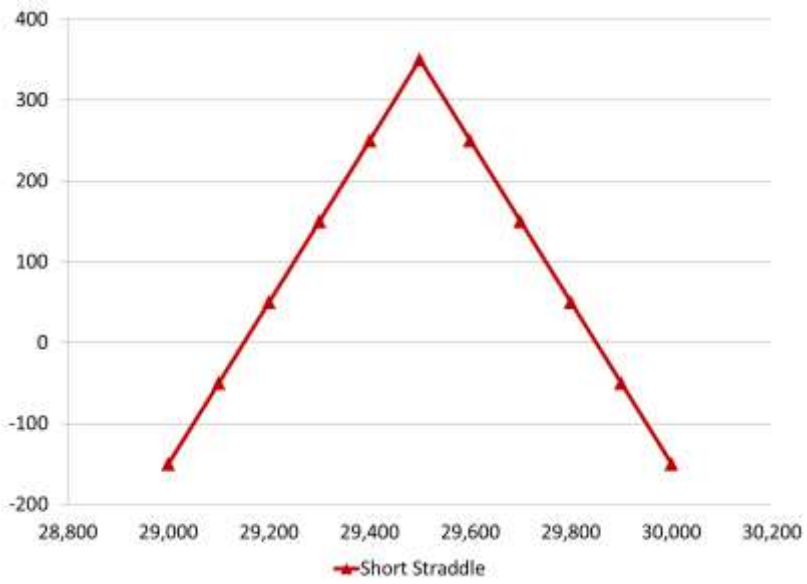
Upper Breakeven Point = Strike Price of Long Call + Net Premium Paid
In this case- 29500+200= 29700

Lower Breakeven Point = Strike Price of Long Put - Net Premium Paid
In this case- 29500-150= 29350

Max Profit = Net Premium Received
In this case- 200+150= 350

Maximum Loss = Unlimited

Loss happens once price rises above Rs.29850 or if it falls below Rs.29150.



BUTTERFLY SPREAD

The butterfly spread is a neutral strategy that is a combination of a bull spread and a bear spread. It is a limited profit, limited risk options strategy. There are 3 striking prices involved in a butterfly spread and it can be constructed using calls or puts.

Long Call Butterfly

Long butterfly spreads are entered when the investor thinks that the underlying stock will not rise or fall much by expiration. Using calls, the long butterfly can be constructed by buying one lower striking in-the-money call, writing two at-the-money calls and buying another higher striking out-of-the-money call. A resulting net debit is taken to enter the trade.

Breakeven Point

There are 2 break-even points for the butterfly spread position. The breakeven points can be calculated using the following formulae.

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

Max Profit = Strike Price of Short Call - Strike Price of Lower Strike Long Call - Net Premium Paid

Max Profit Achieved When Price of Underlying = Strike Price of Short Calls

Maximum profit for the long butterfly spread is attained when the underlying stock price remains unchanged at expiration. At this price, only the lower striking call expires in the money.

Max Loss = Net Premium Paid

Max Loss Occurs When Price of Underlying <= Strike Price of Lower Strike Long Call OR Price of Underlying >= Strike Price of Higher Strike Long Call

Example- MCX Gold futures trading near Rs.29600/10 gram and we expect price to trade in a broad range. To benefit from it one can initiate a butterfly spread. Buy 29500 strike call option by paying a premium of Rs.195. Buy another call of 29700 strike by paying a premium of Rs.115. Sell two call option of strike 29600 and get a premium of 2x150= 300.

Breakeven point

Upper Breakeven Point = Strike Price of Higher Strike Long Call - Net Premium Paid
In this case- 29700- (195+115-300) = 29690

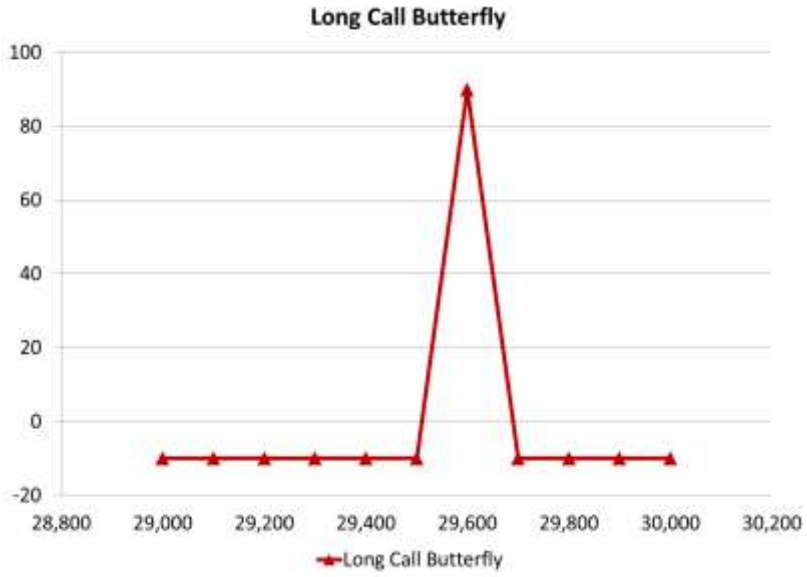
Lower Breakeven Point = Strike Price of Lower Strike Long Call + Net Premium Paid
In this case- 29500+ (195+115-300) = 29510

Max Profit = Strike Price of Short Call - Strike Price of Lower Strike Long Call - Net Premium Paid

In this case- 29600-29500- (195+115-300) = 90

Max Loss = Net Premium Paid

In this case- 195+115-300= 10



Short Call Butterfly

The short butterfly is a neutral strategy like the long butterfly with limited profit and limited risk. There are 3 striking prices involved in a short butterfly spread and it can be constructed using calls or puts. It is used when one expects sharp price volatility.

Using calls, the short butterfly can be constructed by writing one lower striking in-the-money call, buying two at-the-money calls and writing another higher striking out-of-the-money call

Breakeven 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

Max Profit = Net Premium Received

Max Profit Achieved When Price of Underlying <= Strike Price of Lower Strike Short Call OR Price of Underlying >= Strike Price of Higher Strike Short Call

Maximum profit for the short butterfly is obtained when the underlying stock price rally pass the higher strike price or drops below the lower strike price at expiration.

Max Loss = Strike Price of Long Call - Strike Price of Lower Strike Short Call - Net Premium Received

Max Loss Occurs When Price of Underlying = Strike Price of Long Calls

Maximum loss for the short butterfly is incurred when the stock price of the underlying stock remains unchanged at expiration. At this price, only the lower striking call which was shorted expires in-the-money

Example- MCX Gold futures are trading at Rs.29600/10 gram and we expect sharp movement in price in coming days. To benefit from the volatility one may initiate a short call butterfly spread. Sell call option of 29500 strike and receive a premium of Rs.195. Sell another call option of strike 29700 and receive a premium of Rs.115. Buy two at the money 29600 strike call option by paying a premium of 2x150= 300.

Breakeven Point

Upper Breakeven Point = Strike Price of Highest Strike Short Call - Net Premium Received
In this case- 29700- (195+115-300) = 29690

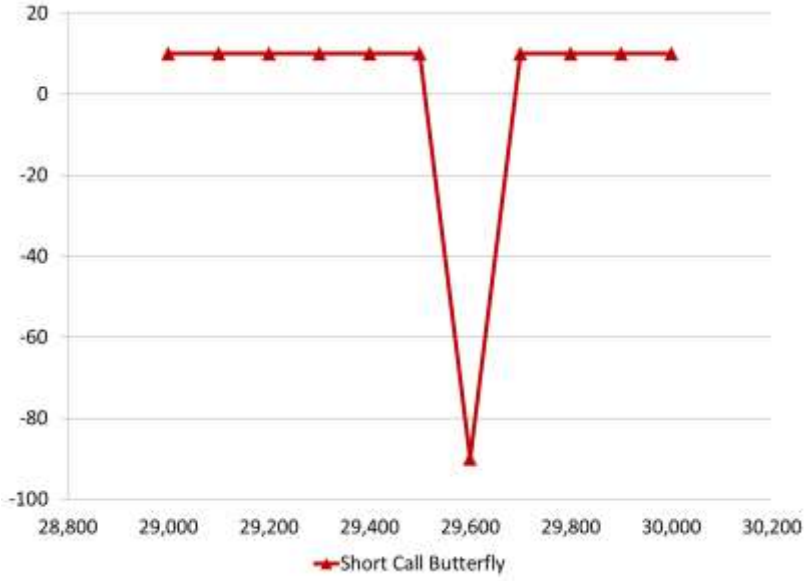
Lower Breakeven Point = Strike Price of Lowest Strike Short Call + Net Premium Received
In this case- 29500+ (195+115-300) = 29510

Max Profit = Net Premium Received

In this case- 195+115-300= 10

Max Loss = Strike Price of Long Call - Strike Price of Lower Strike Short Call - Net Premium Received

In this case- 29600-29500-(195+115-300) = 90



IRON CONDOR

The iron condor is a limited risk, non-directional option trading strategy that is designed to have a large probability of earning a small limited profit when the underlying security is perceived to have low volatility.

Using options expiring on the same expiration month, one can create an iron condor by selling a lower strike out-of-the-money put, buying an even lower strike out-of-the-money put, selling a higher strike out-of-the-money call and buying another even higher strike out-of-the-money call. This results in a net credit to put on the trade.

Breakeven Point

There are 2 break-even points for the iron condor position. The breakeven points can be calculated using the following formulae.

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

Max Profit = Net Premium Received

Maximum gain for the iron condor strategy is equal to the net credit received when entering the trade. Maximum profit is attained when the underlying stock price at expiration is between the strikes of the call and put sold. At this price, all the options expire worthless.

Max Loss = Strike Price of Long Call - Strike Price of Short Call - Net Premium Received
Max Loss Occurs When Price of Underlying >= Strike Price of Long Call OR Price of Underlying <= Strike Price of Long Put

Maximum loss for the iron condor spread is also limited but significantly higher than the maximum profit. It occurs

when the stock price falls at or below the lower strike of the put purchased or rise above or equal to the higher strike of the call purchased. In either situation, maximum loss is equal to the difference in strike between the calls (or puts) minus the net credit received when entering the trade.

Example- MCX Gold futures trading near Rs.29500/10 gram and is expected to trade in a narrow range. To benefit from the rangebound movement in gold, an Iron Condor strategy can be initiated.

Sell a 29400 strike put option and receive a premium of Rs.90

Buy a 29300 strike put option by paying a premium of Rs.50.

Sell a 29600 strike call option and receive a premium of Rs.170

Buy a 29700 strike call option by paying a premium of Rs.130.

Net premium received= 90+170-50-130= 80

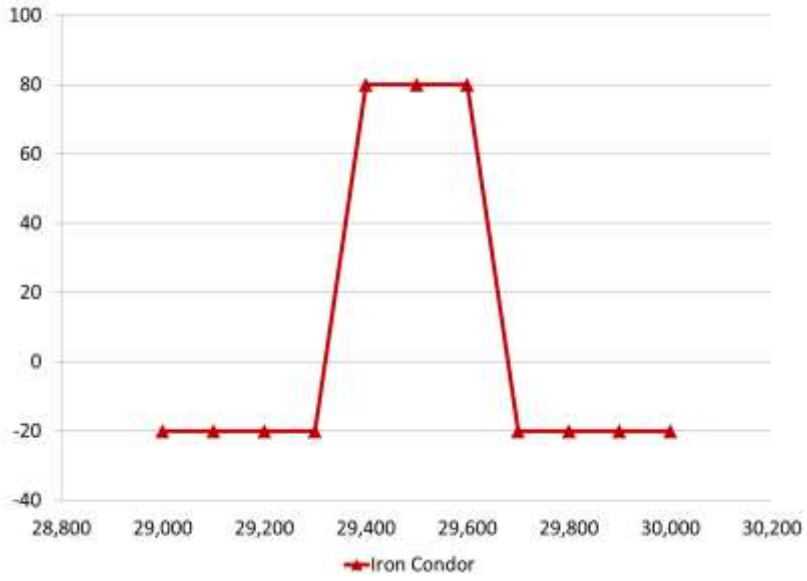
Breakeven Point

Upper Breakeven Point = Strike Price of Short Call + Net Premium Received
In this case- 29600+ (90+170-50-130) = 29680

Lower Breakeven Point = Strike Price of Short Put - Net Premium Received
In this case- 29400- (90+170-50-130) = 29320

Max Profit = Net Premium Received
In this case- 90+170-50-130= 80

Max Loss = Strike Price of Long Call - Strike Price of Short Call - Net Premium Received
In this case- 29700-29600- (90+170-50-130) = 20



REVERSE IRON CONDOR

The reverse (short) iron condor is a limited risk, limited profit trading strategy that is designed to earn a profit when the underlying stock price makes a sharp move in either direction

To setup a reverse iron condor, one buys a lower strike out-of-the-money put, sells an even lower strike out-of-the-money put, buys a higher strike out-of-the-money call and sells another even higher strike out-of-the-money call. A net debit is taken to enter this trade.

Breakeven Point

There are 2 break-even points for the reverse iron condor position. The breakeven points can be calculated using the following formulae.

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

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

Max Profit = Strike Price of Short Call (or Long Put) - Strike Price of Long Call (or Short Put) - Net Premium Paid

Max Profit Achieved When Price of Underlying < Strike Price of Short Put OR Price of Underlying > Strike Price of Short Call

Maximum gain for the reverse iron condor strategy is limited but significantly higher than the maximum possible loss. It is attained when the underlying stock price drops below the strike price of the short put or rise above or equal to the higher strike price of the short call. In either situation, maximum profit is equal to the difference in strike between the calls (or puts) minus the net debit taken when initiating the trade.

Max Loss = Net Premium Paid

Max Loss Occurs When Price of Underlying is in between the Strike Prices of the Long Call and the Long Put

Maximum loss for the reverse iron condor strategy is also limited and is equal to the net debit taken when entering the trade. Maximum loss occurs when the underlying stock price at expiration is between the strikes of the long call and the long put. At this price, all the options expire worthless so the trader is left with nothing except a loss equal to the initial debit taken.

Example- MCX Gold futures trading at Rs.29500/10 gram and sharp volatility is expected. To benefit from the volatility, one may initiate a reverse iron condor

Buy a 29400 strike put option by paying a premium of Rs.90.

Sell a 29300 strike put option and receive a premium of Rs.50.

Buy a 29600 strike call option by paying a premium of Rs.170

Sell a 29700 strike call option and receive a premium of Rs.130

Net premium paid= 80

Upper Breakeven Point = Strike Price of Long Call + Net Premium Paid
In this case- 29600+80= 29680

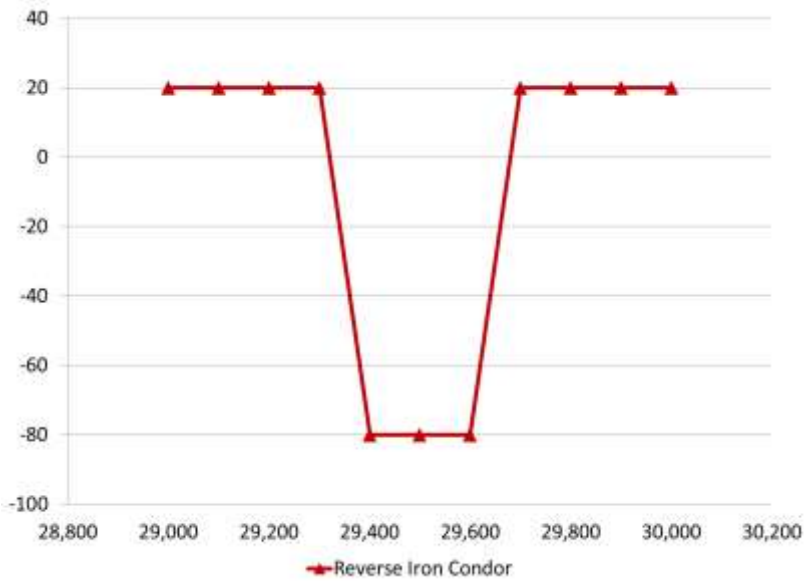
Lower Breakeven Point = Strike Price of Long Put - Net Premium Paid
In this case- 29400-80= 29320

Max Profit = Strike Price of Short Call (or Long Put) - Strike Price of Long Call (or Short Put) - Net Premium Paid

In this case- 29700- 29600- 80= 20 OR 29400-29300-80= 20

Max Loss = Net Premium Paid

In this case= 80



STRIP

The strip involves buying a number of at-the-money calls and twice the number of puts of the same underlying stock, striking price and expiration date. Strips are unlimited profit, limited risk options trading strategies that are used when one thinks that the underlying stock price will experience significant volatility in the near term and is more likely to plunge downwards instead of rallying.

Breakeven Point

There are 2 break-even points for the strip position. The breakeven points can be calculated using the following formulae.

Upper Breakeven Point = Strike Price of Calls/Puts + Net Premium Paid

Lower Breakeven Point = Strike Price of Calls/Puts - (Net Premium Paid/2)

Maximum Profit = Unlimited

Profit Achieved When Price of Underlying > Strike Price of Calls/Puts + Net Premium Paid OR Price of Underlying < Strike Price of Calls/Puts - (Net Premium Paid/2)

Profit = Price of Underlying - Strike Price of Calls - Net Premium Paid OR 2 x (Strike Price of Puts - Price of Underlying) - Net Premium Paid

Large profit is attainable with the strip strategy when the underlying stock price makes a strong move either upwards or downwards at expiration, with greater gains to be made with a downward move.

Max Loss = Net Premium Paid

Max Loss Occurs When Price of Underlying = Strike Price of Calls/Puts

Maximum loss for the strip occurs when the underlying stock price on expiration date is trading at the strike price of the call and put options purchased. At this price, all the options expire worthless and one loses the entire premium paid to enter the trade.
Example- MCX Gold Futures trading at Rs.29400/10 gram and is expected to see sharp volatility in the near term with higher chance of price falling. To benefit from this, one may initiate a strip position.

Buy one 29400 strike call option by paying a premium of Rs.270
Buy two 29400 strike put option by paying a premium of 2 x 130= 260

Net premium paid- 270+260= 530

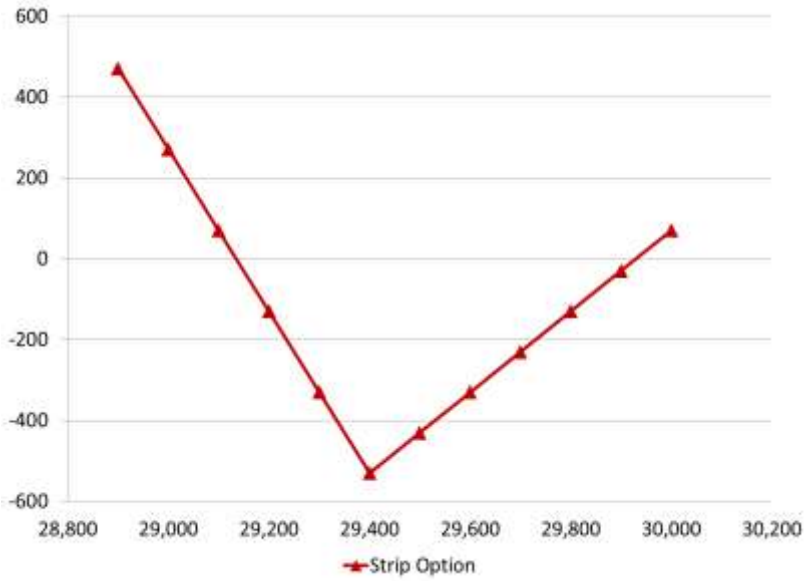
Upper Breakeven Point = Strike Price of Calls/Puts + Net Premium Paid
In this case- 29400+530= 29930

Lower Breakeven Point = Strike Price of Calls/Puts - (Net Premium Paid/2)
In this case- 29400- (530/2) = 29135

Profit Achieved When Price of Underlying > Strike Price of Calls/Puts + Net Premium Paid OR Price of Underlying < Strike Price of Calls/Puts - (Net Premium Paid/2)

Maximum Loss

Max Loss = Net Premium Paid
In this case- 530



STRAP

The strap is a modified, more bullish version of the common straddle. It involves buying a number of at-the-money puts and twice the number of calls of the same underlying stock, striking price and expiration date.

Straps are unlimited profit, limited risk options trading strategies that are used when one thinks that the underlying stock price will experience significant volatility in the near term and is more likely to rally upwards instead of plunging downwards.

Breakeven Point

There are 2 break-even points for the strap position. The breakeven points can be calculated using the following formulae.

Upper Breakeven Point = Strike Price of Calls/Puts + (Net Premium Paid/2)

Lower Breakeven Point = Strike Price of Calls/Puts - Net Premium Paid

Max Loss = Net Premium Paid

Max Loss Occurs When Price of Underlying = Strike Price of Calls/Puts

Maximum loss for the strap occurs when the underlying stock price on expiration date is trading at the strike price of the call and put options purchased. At this price, all the options expire worthless and the options trader loses the entire initial debit taken to enter the trade

Maximum Profit = Unlimited

Profit Achieved When Price of Underlying > Strike Price of Calls/Puts + (Net Premium Paid/2) OR Price of Underlying < Strike Price of Calls/Puts - Net Premium Paid

Profit = 2 x (Price of Underlying - Strike Price of Calls) - Net Premium Paid OR Strike Price of Puts - Price of Underlying - Net Premium Paid

Example- MCX Gold futures trading at Rs.29300/10 gram and one expect to see sharp volatility with higher chance of price moving higher. To benefit from the situation, one may initiate a Strap strategy.

Buy two 29300 strike call option by paying 2*130= 260
Buy one 29300 strike put option by paying 110

Total Premium Paid- 260+110= 370.

Breakeven Point

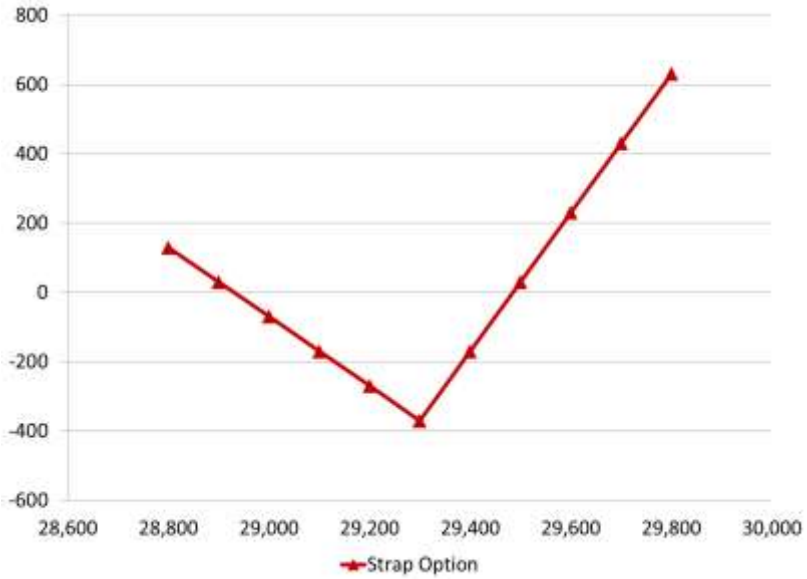
Upper Breakeven Point = Strike Price of Calls/Puts + (Net Premium Paid/2)
In this case- 29300+ (370/2) = 29485

Lower Breakeven Point = Strike Price of Calls/Puts - Net Premium Paid
In this case- 29300-370= 28930

Max Loss = Net Premium Paid
In this case- 370

Profit Achieved When Price of Underlying > Strike Price of Calls/Puts + (Net Premium Paid/2) OR Price of Underlying < Strike Price of Calls/Puts - Net Premium Paid

In this case- profit is achieved if price is greater than 29485 or less than 28930



COLLAR

A collar is an options trading strategy that is constructed by holding shares of the underlying while simultaneously buying protective puts and selling call options against that holding. The puts and the calls are both out-of-the-money options having the same expiration month and must be equal in number of contracts.

The collar is a good strategy to use if one is writing covered calls to earn premiums but wants to protect oneself from an unexpected sharp drop in the price of the underlying security.

Breakeven Point

Breakeven Point = Purchase Price of Underlying + Net Premium Paid

Max Profit = Strike Price of Short Call - Purchase Price of Underlying + Net Premium Received
Max Profit Achieved When Price of Underlying >= Strike Price of Short Call

Max Loss = Purchase Price of Underlying - Strike Price of Long Put - Net Premium Received
Max Loss Occurs When Price of Underlying <= Strike Price of Long Put

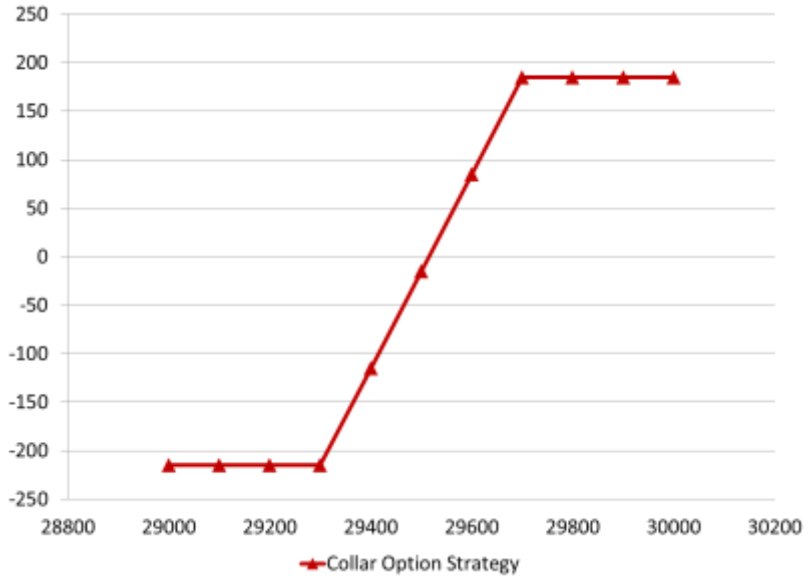
Example- MCX Gold futures trading near Rs.29500/10 gram and one want to initiate collar strategy

Buy 1 lot of MCX Gold futures at 29500
Sell 29700 strike call option and receive a premium of Rs.50
Buy 29300 strike put option by paying a premium of Rs.65
Total premium paid is Rs.15

Breakeven Point = Purchase Price of Underlying + Net Premium Paid
In this case- 29500+15= 29515

Max Profit = Strike Price of Short Call - Purchase Price of Underlying + Net Premium Received
In this case- 29700-29500-15= 185

Max Loss = Purchase Price of Underlying - Strike Price of Long Put - Net Premium Received
In this case- 29700-29300+15= 215



MARRIED PUT

The Married Put is an option strategy in which the options trader buys an at-the-money put option while simultaneously buying an equivalent number of shares of the underlying stock.

A married put strategy is usually employed when one is bullish on an underlying but also wary of uncertainties in the near term.

Breakeven Point

Breakeven Point = Purchase Price of Underlying + Premium Paid

Max Loss = Premium Paid

Max Loss Occurs When Price of Underlying <= Strike Price of Long Put

Maximum Profit = Unlimited

Profit Achieved When Price of Underlying > Purchase Price of Underlying + Premium Paid

Profit = Price of Underlying - Purchase Price of Underlying - Premium Paid

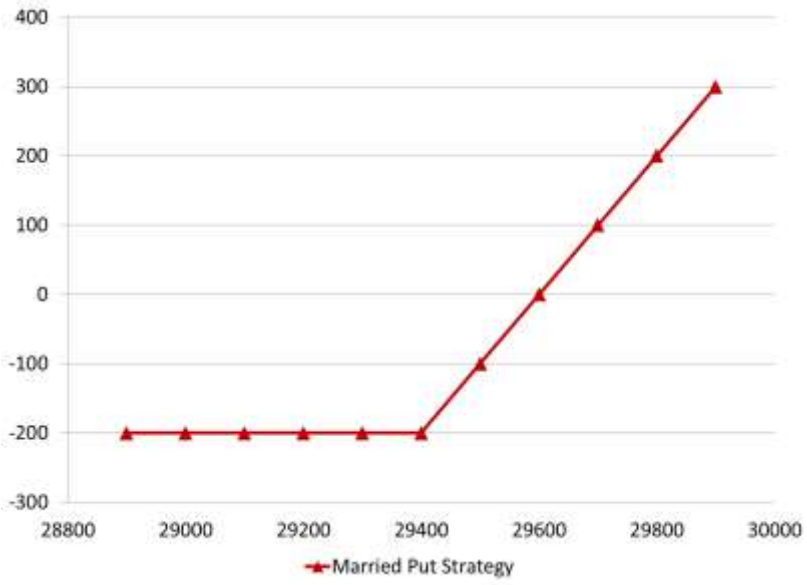
Example- MCX Gold futures are trading near Rs.29400/10 gram. One is bullish on gold prices but is concerned about near term selling pressure. To protect from the uncertainty, one may employ the strategy of Married put.

Buy MCX Gold futures at 29400
Buy MCX Gold 29400 Strike Put Option by paying a premium of Rs.200.
Net premium paid is Rs.200

Breakeven Point

Purchase Price of Underlying + Premium Paid
In this case- 29400+200= 29600

Maximum loss- Premium Paid
In this case- 200
Profit Achieved When Price of Underlying > Purchase Price of Underlying + Premium Paid
In this case, profit will be made once price rises above 29400+200= 29600



RATIO CALL SPREAD

The ratio spread is a neutral strategy in options trading that involves buying a number of options and selling more options of the same underlying stock and expiration date at a different strike price. It is a limited profit, unlimited risk options trading strategy that is taken when the options trader thinks that the underlying stock will experience little volatility in the near term.

Breakeven Point

There are 2 break-even points for the ratio spread position. The breakeven points can be calculated using the following formulae.

Upper Breakeven Point = Strike Price of Short Calls + (Points of Maximum Profit / Number of Uncovered Calls)

Lower Breakeven Point = Strike Price of Long Call +/- Net Premium Paid or Received

Max Profit = Strike Price of Short Call - Strike Price of Long Call + Net Premium Received
Max Profit Achieved When Price of Underlying = Strike Price of Short Calls

Maximum gain for the call ratio spread is limited and is made when the underlying stock price at expiration is at the strike price of the options sold. At this price, both the written calls expire worthless while the long call expires in the money.

Maximum Loss = Unlimited

Loss Occurs When Price of Underlying > Strike Price of Short Calls + ((Strike Price of Short Call - Strike Price of Long Call + Net Premium Received) / Number of Uncovered Calls)

Loss = Price of Underlying - Strike Price of Short Calls - Max Profit

Loss occurs when the stock price makes a strong move to the upside beyond the upper breakeven point. There is no limit to the maximum possible loss when implementing the call ratio spread strategy.
Any risk to the downside for the call ratio spread is limited to the debit taken to put on the spread (if any). There may even be a profit if a credit is received when putting on the spread.

Example- MCX Gold futures trading near Rs.29400/10 gram and one expects price to remain in a narrow range. To benefit from the stability in the market, one may initiate a ratio call

Buy 1 29300 strike call option by paying a premium of Rs.400.
Sell 2 29700 strike call option and receive a premium of 2X200= 400
Net premium paid is 0

Breakeven Point

Upper Breakeven Point = Strike Price of Short Calls + (Points of Maximum Profit / Number of Uncovered Calls)

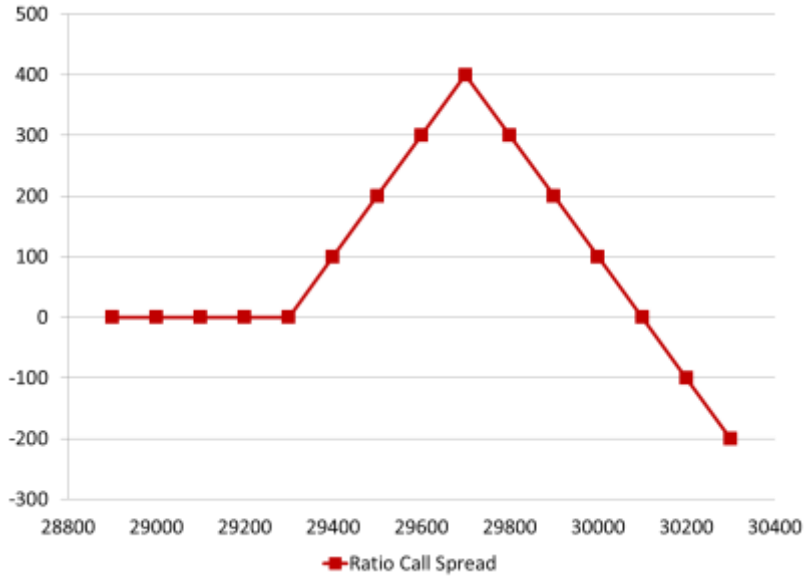
In this case- 29700+400= 30100

Lower Breakeven Point = Strike Price of Long Call +/- Net Premium Paid or Received
In this case- 29300+ 0= 29300

Max Profit = Strike Price of Short Call - Strike Price of Long Call + Net Premium Received
In this case- 29700-29300+0= 400

Loss Occurs When Price of Underlying > Strike Price of Short Calls + ((Strike Price of Short Call - Strike Price of Long Call + Net Premium Received) / Number of Uncovered Calls)

Loss occurs once price rises above 30100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Ratio Call Spread

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