

OPTION TRADING STRATEGIES FOR BEGINNERS

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Abstracts

Reaping benefits using option contracts is not about using option-based strategies – combinations and spreads, rather it is all about predicting stock market trends and mapping the option trading strategies to the trend so identified. Straddle a win-win strategy is most beneficial when market movement is undecided and it can move on either side, whereas, butterfly spread and collar are the strategies which can be employed in a market like to remain range bound in near future.

Keywords: Option, Straddle, Butterfly spread, Collar, Bullish spread

Introduction

The price movement in the stock market is never unidirectional rather there are random ups and downs, at times there is up trend also called **northward trend** and down trend also called **southward trend**. The investment strategies of investor depend on the expectation about these movements. The price movement as well as the movement of index are identified as follows

- Daily movement – lasting for about one week time
- Secondary movement – continuing for about two to three time
- Primary movement - the movement which continues for about a year or more

Out of these movements of prices of individual stock and index of the market primary movement also called **secular movement**. It is the secular movement of the index from point-to-point basis over the long time period helps in the identification of trend of the market. Usually following trends are identified in the market

- Uptrend - An uptrend is identified when successive peak is formed at higher level as compared to preceding peak combined with the formation of trough at the higher level as compared to previous trough. The successive formation of peak and trough at the higher level helps in the identification of trend as up trend.
- Downtrend - Downtrend is identified by observing primary trend from point to point on time scale. Barring certain intervening technical corrections when subsequent peak is formed at the lower level as compared to previous peak also combined with the formation of trough at the lower level as compared to previous trough. Such formation indicates a down trend in the market.
- Horizontal trend - A price/index movement pattern which is sideways and does not show either the uptrend or downtrend. The formation of successive peak is almost at the same level of the previous peak combined with the formation of successive trough at the same level as compared to previous trough. This shows that in the days to come market might move to either side.

Strategies using derivatives are always based on the present market trend as well as prediction or assessment about future market trend. Different strategies are used in different market situations. The market situation may be for the overall market based on the movement of index or it may be for a particular share based on the trend movement and prediction about the individual share. The strategies are created using either call option or put option or both.

Review of Literature

In a research paper Michal Soltes (2014) suggested the one should focus on trading stocks and improvement of long and short positions in case of negative development in stock price. For this purpose, one should use Vertical Ratio Call Spread and Vertical Ratio Put Spread option strategies to maximize the gain.

Raisová, M., & Bánociová, A. (2015) tested the cointegration between the high and low volatility and returns from option-based strategies. It was concluded that the strategies for non-directional market and high volatility expectation generally result in a loss, and the amount of loss in the group of companies in financial sector is lower as compared to other companies. The strategies for non-directional market and low volatility expectations are generally profitable and the amount of profit is higher in the group of companies which are not included in financial institutions sectors.

Keming Li (2011) in a research study concluded about the effect of financial derivatives in the context of option trading and corporate policies. It was hypothesized that the informed option trading strategies improve equity efficiency and thus decrease the cost of capital, which leads to an increased use of external finance for project funding.

Sophie X. Ni, et. al. (2008) concluded that the option volume (traded volume of option contract) is informative about future volatility which leads to subsequent realized volatility of underlying stock prices. The study further concluded that the investor in the derivatives market choose to trade on private volatility information in the option market.

Strategy For Sideways Movement of Market

A sideways movement of market implies that market is almost flat at present and future movement might be either the uptrend or downtrend. Here selection of the appropriate strategy to gain out of the market movement depends upon the assessment of the investor about the expected movement of the market likely to take place in near future. In this type of market either the probability of an uptrend might be more as compared to the probability of a downtrend or vice-a-versa. Depending upon the assessment and expectation about the near future movement of market trend following strategies can be used to gain out of such market movement in near future

Strips – Strategy for More Probability of Downtrend Compared to Uptrend

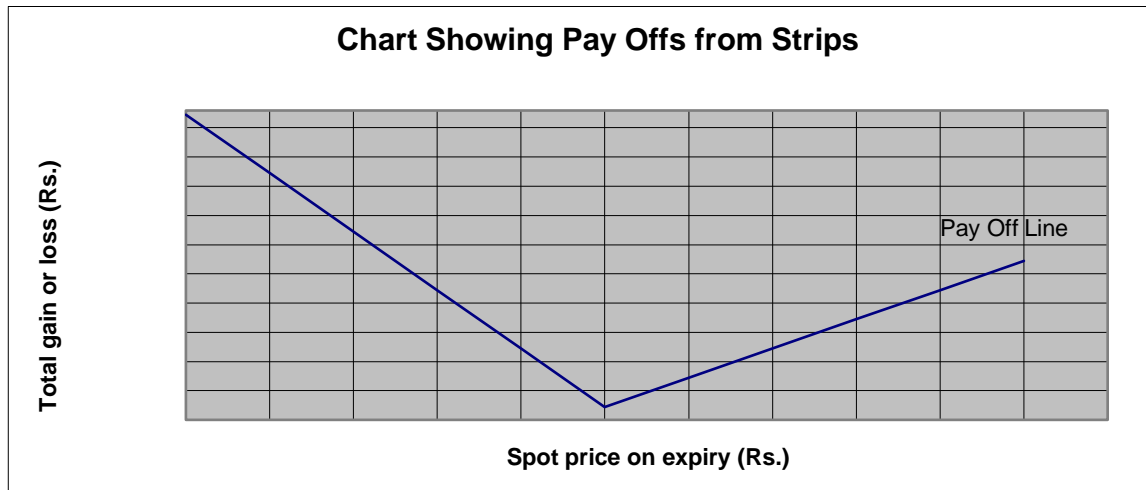
When an investor buys one call option and two put option with the same exercise price and same expiry on a particular underlying asset (share), it is called strips. Such a combination is created when market shows sideways movement with more probability of having a southward movement in the near future i.e., downward movement. Herein the underlying asset, exercise price, and expiry are the same for both the type of options. The only difference is that one is the call option and another is the put option.

When an investor buys one call option and two put option with the same exercise price and same expiry on a particular underlying asset (share), it is called strips.

Upper Break-Even Point (UBEP) = Exercise price + Total Premium Paid

Lower Break-Even Point (LBEP) = Exercise price – (Total Premium Paid)/2

Figure # 01: Chart Showing Pay Offs from Strips



The Outcome

Now if market really goes down as per the expectation of the operator, then the put options purchased by the operator will be in the money and generate the benefit as expected by the operator whereas the call option will not generate any gain as it will be out of the money. However, if market goes up then also the operator/investor will have the profit here call option will be in the money and generate the profit and put options will be out of the money and these will become worthless. Though the profits so generated will comparatively be less as compared to the situation of market going down. Same is depicted in figure # 01 shown above.

Straps - Strategy for More Probability of Uptrend Compared to Downtrend

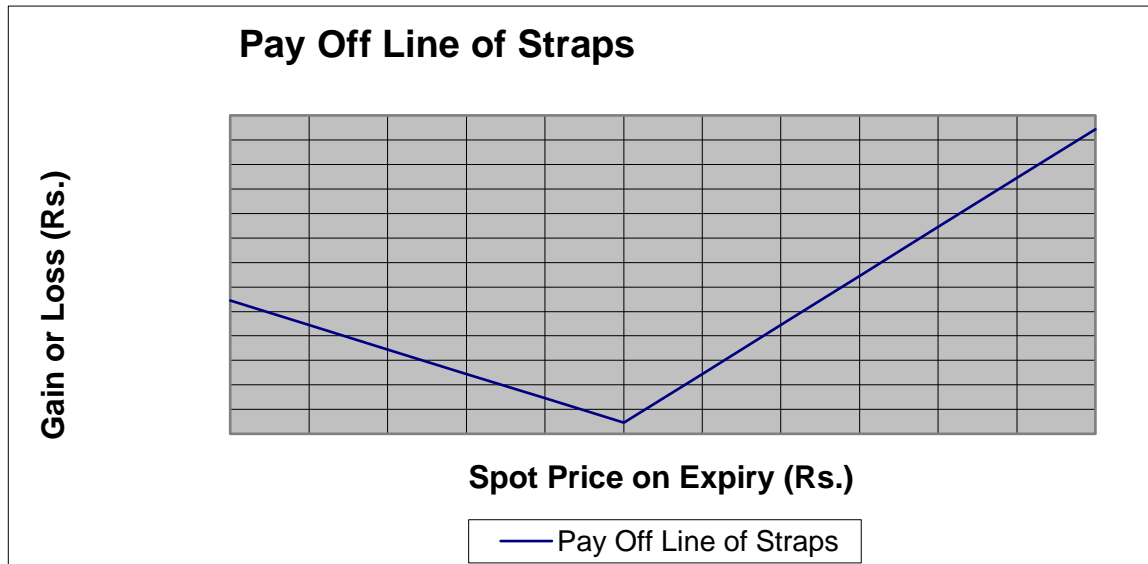
When an investor buys one put option and two call option with the same exercise price and same expiry on a particular underlying asset (share) it is called as straps. Such combination is created when market shows a sideways movement with more probability of having a northward movement in the near future. With the help of following illustration, we can understand its' outcomes

Upper Break-Even Point (UBEP) = Exercise price + (Total Premium Paid)/2

Lower Break Even Point (LBEP) = Exercise price - Total Premium Paid

When an investor buys one put option and two call option with the same exercise price and same expiry on a particular underlying asset (share) it is called as straps.

Figure # 02: Chart Showing Pay Off Line of Straps



The Outcome

Figure # 02 shows the outcome of straps. If by the expiry of the option market really goes up as per the expectation of the operator then the call options purchased by the operator will be in-the-money and generate the benefit as expected by the operator whereas the put option will not generate any gain as it will be out-of-the money. However, if market goes down then also it will generate the profit here put option will be in-the-money and generate the profit and call options will be out-of-the money and these will become worthless. Though the profits so generated will comparatively be less as compared to the situation of market going up.

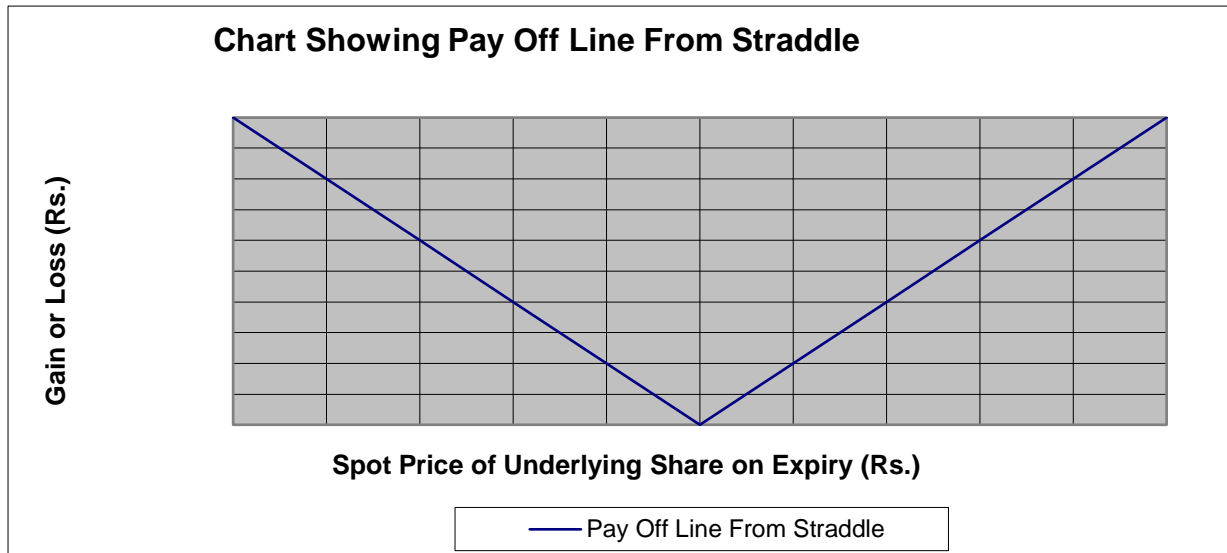
Straddle – Strategy for Equal Change of Either Side Movement (Win-Win Strategy)

A straddle is a combination of a put and a call option on the same underlying instrument. Under this a trader buys a call option as well as a put option at the same strike price with same strike date for both the contracts. If prices of the underlying instrument increase, then call generates profits and the put becomes worthless, whereas if prices of the underlying instrument decrease, the put generates the returns and call becomes worthless. This strategy can even be adopted to speculate without having any holding of the underlying instrument.

Upper Break-Even Point (UBEP) = Exercise price + Total Premium Paid

Lower Break-Even Point (LBEP) = Exercise price – Total Premium Paid

Under straddle a trader buys a call option as well as a put option at the same strike price with same strike date for both the contracts.

Figure # 03: Chart Showing Pay Off Line From Straddle**The Outcome**

Now when in the future before or by the expiry of the above given options market moves upward and crosses the upper break-even point the investor will have the gain from call option and the put option will become worthless. On the contrary to this when market makes downward movement and crosses the lower break-even point the investor will have the gain from put option and call will become worthless. Same is depicted by figure # 03 given above.

Strangle - Strategy for Equal Change of Either Side Market Movement

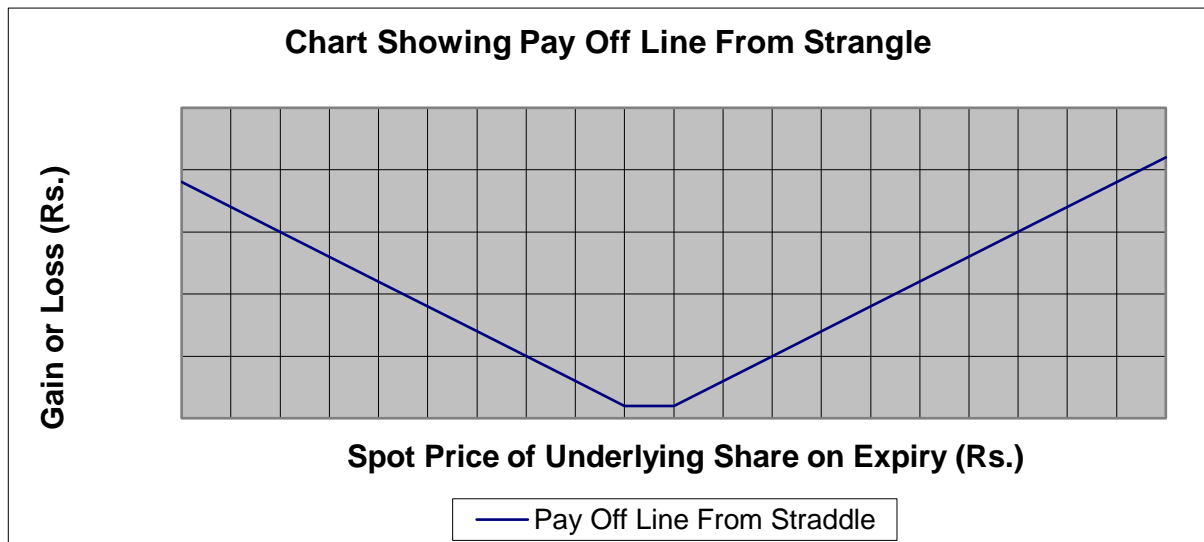
It is a combination of a put and a call option on the same underlying instrument. Under this a trader buys a call option as well as a put option at different strike prices but having the same strike date for both the contracts. The difference in the strike prices is the spread of the hedger. Here trader assign marginally higher probability for the uptrend as compared to the probability of downtrend. It is also a win-win strategy with little difference from Straddle. This also results in win-win situation.

Under strangle a trader buys a call option as well as a put option at different strike prices but having the same strike date for both the contracts.

Upper Break-Even Point (UBEP) = Exercise price of call + Total Premium Paid

Lower Break-Even Point (LBEP) = Exercise price of put – (Total Premium Paid)/2

Figure # 04: Chart Showing Pay Off Line From Strangle



The Outcome

Figure # 04 depicts the gain or loss from strangle. When in the future before or by the expiry of the above given options market moves upward and crosses the upper break-even point the investor will have the gain from call option and the put option will become worthless. On the contrary to this when market makes downward movement and crosses the lower break-even point the investor will have the gain from put option and call will become worthless.

Butterfly Spread – Low-Cost Limited Gain Strategy for Range Bound Movement

A butterfly spread is created by taking a position in four option contracts of same type of option (either all the four are call options or all the four are put options) at three different exercise prices on one underlying asset with the same expiry. The investor creating butterfly spread takes long position for one lot option contract each at the near-in-the money price and far-in-the-money exercise price and sells two lot option contracts at the exercise price, which is almost average of the above two exercise prices. The middle exercise price is just half-way between the near-in the-money exercise price and far-in-the-money exercise price. The investor creating butterfly has an estimate that if market moves then there is a most likely chance that it will go up to middle exercise price.

All the option contracts that are undertaken are either call option or put option. Usually, the options used are of European style but in certain cases American style options can also be used. While creating this spread, the investor expects that market is not likely to move beyond the middle price and he will have a gain equal to the difference between the near-in-the-money exercise price and middle exercise price. However, if spot price moves beyond the middle exercise price, then the investor is ready to surrender the gain earned by him; but in this situation, his maximum loss from this spread is equal to the gain from this spread, thereby resulting into a net zero gain/loss for him. Butterfly spread may be:

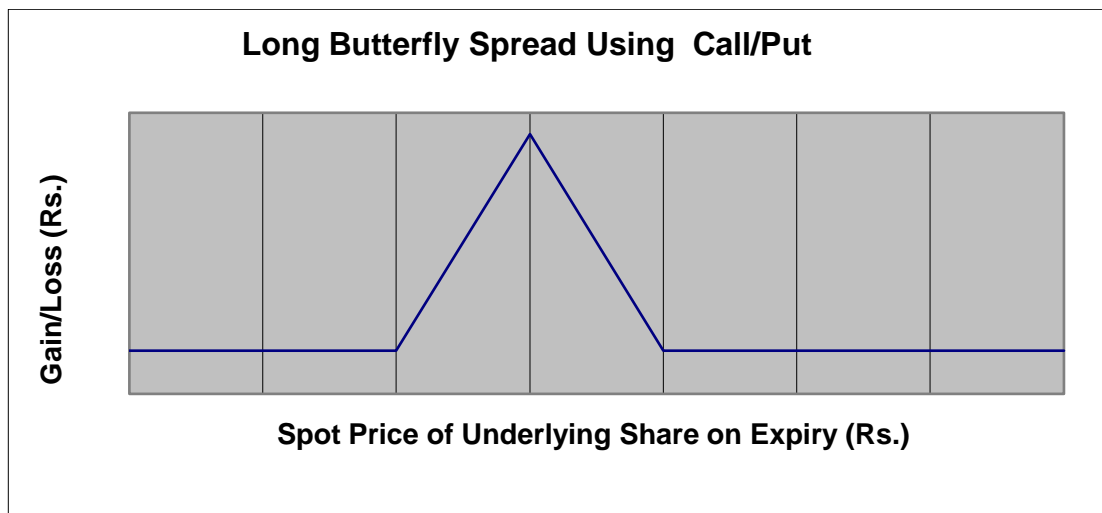
- **Bullish Butterfly Spread**
- **Bearish Butterfly Spread**

When an investor takes a position in call options to create butterfly spread, it is termed as **bullish butterfly spread**; whereas when an investor takes a position in put options to create butterfly spread, it is termed as **bearish butterfly spread**. In a bullish butterfly spread, the investor expects the market to rise in the near future but he

does not expect it to rise too high. The predictions indicate the most likely chance of market going up to the middle exercise price. Similarly, while creating a bear butterfly spread the investor expects the market to decline in the near future but does not expect a larger decline in the near future. The predictions indicate the most likely chance of market going up to the middle exercise price. The cost of such strategy is net amount of premium paid i.e., total premium received – total premium paid.

When an investor takes a position in call options to create butterfly spread, it is termed as bullish butterfly spread it is also called call butterfly spread.

Figure # 05: Chart Showing Pay Off From Long Butterfly Spread Using Call or Put



Interpretation: Here gross gain is the sum total of pay off from all the four options and net gain is gross gain less net premium. When spot price on expiry reaches the middle exercise price, gross gain = higher exercise price – middle exercise price. On the contrary to this when spot price is either more than the higher exercise price or less than the lower exercise price the maximum loss is the cost of the butterfly spread i.e., the net amount of premium paid.

Collars – Low Cost Assured Limited Gain Strategy in Range Bound Market

Collars is a combination of two option contracts of same type (either both are call options or both are put options) on the same underlying asset having same expiry but difference in exercise price. This is useful strategy in keeping the cost at a very low level at the same time gain is assured when market makes the movement as per the expectation of the investor. Collar is successful in a market which is likely to have a range bound movement in the near future. Collars can be of two types:

- Bullish collar – Bull's spread
- Bearish collar – Bear's spread

Collars is a combination of two option contracts of same type (either both are call options or both are put options) on the same underlying asset having same expiry but difference in exercise price.

Bullish collar: When operator/investor takes up a position on call options it results into a *bullish collar*. The investor takes long position at the lower strike price call option and a short position on the call option with higher strike price simultaneously. Here underlying share and duration of both the call options should be the same. Alternatively, a *bullish collar* is the one in which a call option which is more in-the-money is purchased and another call which is less in-the-money is sold. By doing so operator gets the following two benefits:

- **Low cost**, because for long call he pays the premium and for short call he receives it,
- A range bound **assured gain** i.e., his gain will be equal to the difference between the strike prices of both the option contracts and loss will be zero.

A bullish collar is the one in which a call option which is more in-the-money is purchased and another call which is less in-the-money is sold.

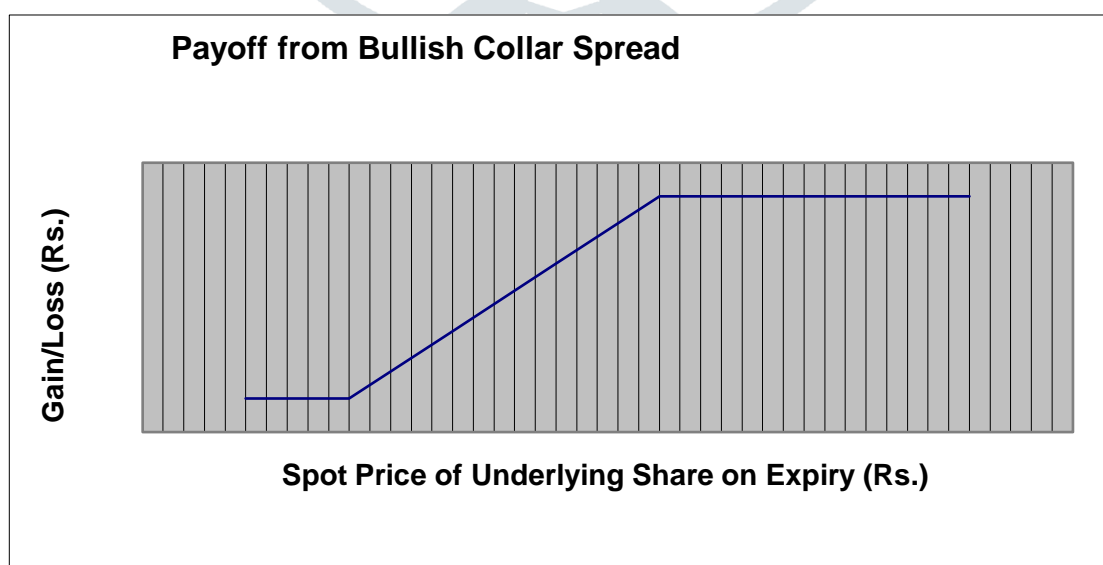
Bearish collar: A bearish collar is created by a bear. Under this he takes a long position on a put option at a higher strike price and a short position on put option at a lower strike price, simultaneously, on the same share with the same expiry of both the options. Alternatively, a *bearish collar* is the one, in which a put option which is less in-the-money is sold and another put option which is more in-the-money is purchased.

Now, when prices decline in the future he will have a range bound gain equal to the difference between the strike price of both the options. Results of this can be summed as follows:

A bearish collar is the one, in which a put option which is less in-the-money is sold and another put option which is more in-the-money is purchased.

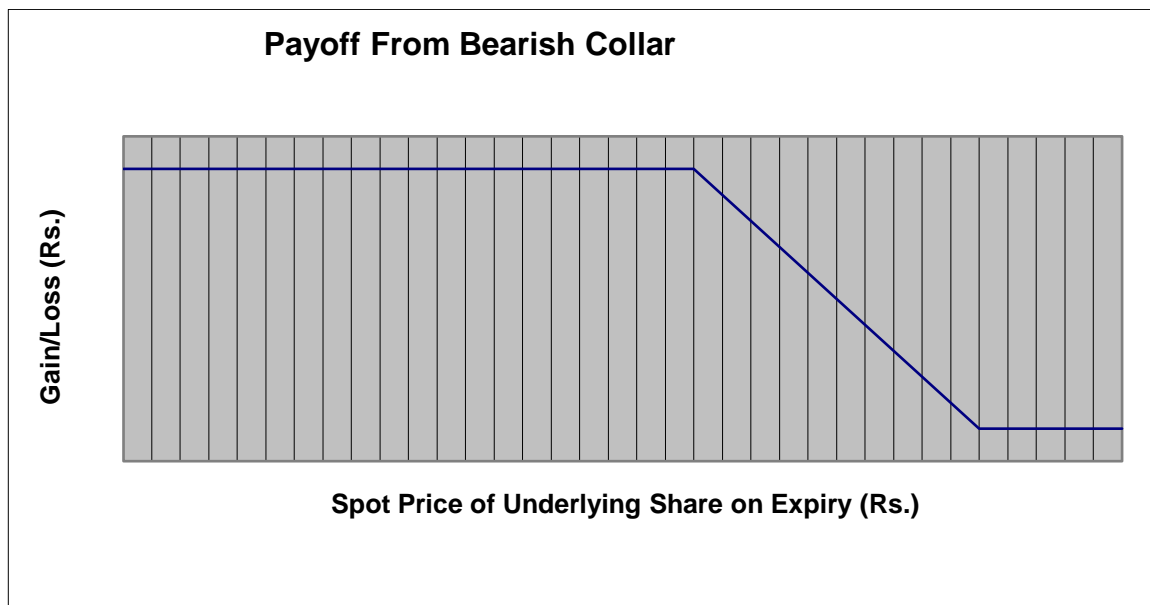
- **Low cost**, because for long call he pays the premium and for short call he receives it,
- a range bound **assured gain** i.e., his gain will be equal to the difference between the strike prices of both the option contracts and loss will be zero.

Figure # 06: Chart Showing Payoff from Bullish Collar Spread



Interpretation: When market is below the first exercise price the loss is equal to the net premium paid. As soon as market moves up the loss gets covered and finally an assured gain is equal to the difference between both the exercise prices further adjusted for net premium. Thus, when market rises the assured gain is realized.

Figure # 07 Chart Showing Payoff from Bearish Collar



Interpretation: When market is above the first exercise price the loss is equal to the net premium paid. As soon as market moves down war the loss gets covered and finally an assured gain is equal to the difference between both the exercise prices further adjusted for net premium. Thus, when market declines the assured gain 3 is realized.

Conclusion:

Using option-based trading strategies is all about knowing the pulse of the market and predicting about near future market trends. Gaining profit by using option-based trading strategies completely depends upon the prediction of near future market trends about stock market or about price movement of an individual stock and selecting appropriate option strategy. However, option trading is like a “double edged weapon” – offering unlimited gains but it entails high degree of risk as well.

References:

- Back, Kerry, 1993, Asymmetric information and options, *Review of Financial Studies* 6, 435–472.
- Cremers M, Weinbaum D (2010) Deviations from put-call parity and stock return predictability. *J Finance Quant Anal* 45:335–367
- Dubinsky, Andrew, and Michael Johannes, 2005, Earnings announcements and equity options, Working paper, Columbia University.
- Fama, Gene, and Kenneth French, 1992, The cross-section of expected stock returns, *Journal of Finance* 47, 427–465.
- G̃arleanu, Nicolae, Lasse H. Pedersen, and Allen M. Poteshman, 2006, Demand-based option pricing, Working paper, University of Illinois at Urbana-Champaign.
- Pearson, Neil D., Allen M. Poteshman, and Joshua White, 2007, Does option trading have a pervasive impact on underlying stock prices? Working paper, University of Illinois at Urbana-Champaign.

Raisová, M., & Bánociová, A. (2012). Issues of Slovak Business Environment, Procedia Economics and Finance: Emerging Markets Queries in Finance and Business: EMFB 2012 : 24.27 October 2012. Tîrgu-Mureş, România. 3, 1223–1228, ISSN 2212-5671.

Soltes, M. (2014), “Using Option Strategies in Trading”, Social and Behavioral Sciences, 110, 979-985.

Sophie X. Ni, Jun Pan, And Allen M. Poteshman (2008) Volatility Information Trading

In The Option Market, The Journal of Finance • Vol. Lxiii, No. 3 • June 2008.

