

Derivative Strategies - Protecting Investments in Equities

A Financial Planner's sound knowledge of derivatives and correct implementation of strategies can help their clients earn a better risk adjusted return.

Investing our savings to create benefits in future, in the form of growth of our assets or regular income in the form of dividends, bonus, interest etc is desired by all of us. The same is true for our clients too. However liquidity, loss of capital, in addition to beating inflation and taxation, are major concerns. Though equities tend to give better returns than other assets and are liquid enough, the main

challenge is to protect the capital. In this article, we would be elaborating on some of the methods using options for protecting the investments in equities.

Pre-requisites

Derivatives, especially Options are powerful risk management tools. However it requires good basic understanding of these



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tools especially option pricing and Greeks. Effect of implied volatility and time to expiry of options and their effect on option premium are extremely important to understand. When to use In the Money, At the Money or Out of the Money Options is also important for your success in dealing with Options. Dividends, bonus issue, or splitting of equity during the period of Option could adversely affect the price of options.

Technical analysis and market sentiments knowledge could be very handy in achieving the success. It is essential to invest only in fundamentally strong companies, which fall in derivative segments and have liquid options, for the success of the strategies.

The horizon for the investible money in equity should be at least three to five years and at least 25% of this investible money should remain in liquid form for using it for derivative strategies.

Strategies

1. **Protective Puts:** Buying a PUT to protect from the fall in price of the stock, we are holding, is like taking an insurance against the fall in price of the stock. The premium paid for the purchase of the PUT is like paying premium for the insurance. Here we buy a right to sell our stock at a particular desired price. In case stock prices fall, we gain from increase in premium of the PUT or by exercising our Option. In case price of stocks rise we gain from underlying stocks.

Illustrative Example: Closing price on 29/07/09 for Reliance Industries is Rs.1925/-. Aug 09 PUT Options available are 1890PA - Rs.84/-, 1920PA - Rs.99/-, 1950PA - Rs.120/-. One could buy Aug 09 1920PA for Rs.99/- to

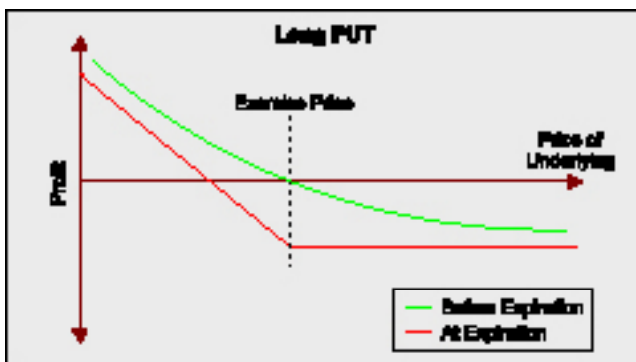
protect the fall in share price of Reliance industries during the month of Aug 09. We are paying Insurance premium of Rs.99/- to protect our losses from any drastic fall in Price of Reliance Industries, without compromising any substantial possible upside in stock price.

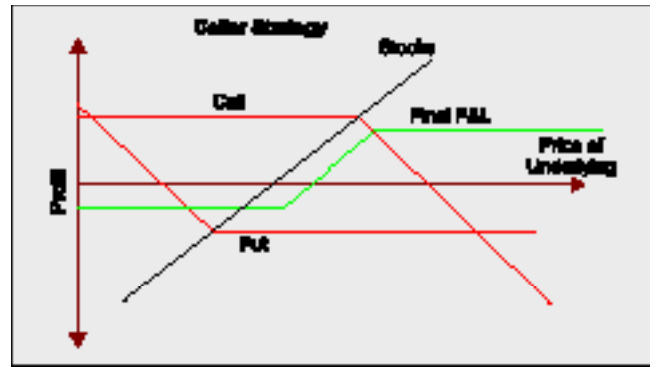
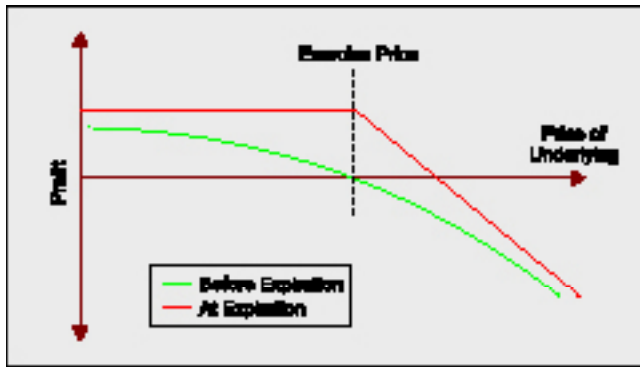
- a. This strategy is very useful when the stock prices have risen very high and are now likely to fall in near future, or when the holdings of stock is nearing one year and we do not want to sell the stock in order to gain tax advantage from long term capital gains. This strategy can also be usefully employed when one expects extreme volatility in near future and markets can move drastically in either direction.
- b. The protective PUT strategy may not be useful in range bound markets or when markets move little in up or down direction.

2. **Covered Calls:** This is one of the most powerful and useful strategy for protecting the equity investments and if used correctly one could land up earning 3% to 5% per month from one's investment. Here we are collecting premium like an insurance company rather than paying premium like the insured. It is like getting a rent from your investment in property.

- a. The strategy involves selling a CALL OPTION on the underlying stock. The sold CALL option could be In the Money, At the Money or Out of the Money, depending on market scenarios and perception how much is stock likely fall or rise during the period of option. In case we expect market to be range bound with very little movement in either direction, it is better to go for the at the money call option, giving maximum time value. In case of expecting more probability of rise in price then fall in price of security we could chose out of the money call option and in case of higher probability of fall in price, an In the Call option could be sold.
- b. Only scenario when a loss can occur in this strategy is when there is sudden drastic fall in price of stock. Even this situation can be successfully handled by learning how to roll down the position.

Illustrative Example: Let's say we are holding 150 shares of Reliance Industry (the derivative lot size for Reliance Industry is 150). The current market price is Rs1925/- per share (Closing price on 29-07-09). The CALL Option prices





for Aug 09 Options are, 1860CA -130.55, 1890CA - 129.55, 1920CA - 114.20, 1950CA - 100.00, 1980CA - 84.00. Let's say we want to protect the shares from fall in price, and would like to gain in case price remains stationary or raises a little. We choose to sell a CALL Option 1950 expiring on 27th Aug 09 and collect a premium of Rs.100/-. Let's now analyse various scenarios: -

- Price of Reliance Industries at expiry of Options remains at Rs.1925. The gain would be Rs.15000/- (100×150), which is the premium collected, as buyer of option will not exercise the option. Total Gain in one month 5.2%
- Price of Reliance rises to any amount above Rs.1950/-; the gain would be Rs.18750/- [$150 \times (100 + 25)$], as any rise in price of reliance above Rs.1950/- would lead to loss in CALL Option sold but negated by simultaneous gain in the underlying stock. Total Gain in one month 6.5%.
- The downward protection, in case stock price starts falling is up to Rs.100/-. That is we do not loose any amount if the stock falls up to Rs.1825/-

Thus we see using covered CALL strategy, without paying any premium we have protected the stock up to a specified fall, and possibility of gain of 5.2% to 6.5% in one month. In other words we have collected rent on our stock holdings.

3. Collar Strategy: This strategy is like making someone else pay for the premium of insurance for protecting the equity. It is the combination of the above two strategies, i.e. we buy a put at the money and sell a call just out of the money. In this strategy the premium gained by selling a CALL option is paid for buying the PUT option. Any fall in the price of stock price is compensated by the Options; however in the process we would be limiting our gains.

a. This strategy is especially used when one wants to protect one's gains already achieved and is waiting for the appropriate time to sell the stock.

Illustrative Example: Let's continue with the example of Reliance Industries. The PUT Option expiring in Aug 09, are 1860 PUT - 69.35, 1890 PUT - 83.60, 1920 PUT - 99, 1950 PUT - 120. Let's assume, purchase price of Reliance Industries is much lower than the present market price and we feel price is more likely to fall than rise during Aug 09, long term scenario remaining positive. We want to protect

the gains in the stock without selling the stock. The Collar strategy for this scenario would be buying a 1920 PUT Option for Rs.99/- and selling a 1950 CALL Option for Rs.100/-.

- Price moves from 1925 to 1950 or above, Gains would be Rs.3900/- (premium collected Rs1/- + Rs.25/- rise in stock * 150 the lot size).
- Any fall in price of stock price would be covered by call option, except Rs.4/- per share (difference between the PUT Option strike price and Stock price, plus the premium collected, i.e. $1920 - 1925 + 1 = -4$).

Thus we notice without paying any premium from our pocket we have protected the shares from fall in price.

4. Position Adjustments: This strategy involves adjusting the positions in CALLS and PUTS depending on how markets move. This is a combination of all the above strategies, but can be used only by individuals who have advanced knowledge of Options, fairly good knowledge of Fundamental analysis, Technical analysis, and market economic and sentimental analysis. One buys a fundamentally strong stock after a correction when technical and sentimental analysis shows an impending strength in the stock. Position in options, CALL or PUT, is taken later depending on how markets actually move, and adjustments are made as per actual movement of market without actually selling the stocks.

Conclusion:

Investment in equities is known to give good returns in long term, but could be risky due to volatility and uncertainties of the markets. This is what prevents majority from investing in equities. Investing in Equity markets, and using Options as risk management tools could result in greatly reducing the risk and increasing the rewards, thus creating a low risk high reward scenario. A CERTIFIED FINANCIAL PLANNER^{CM} practitioner's good knowledge of derivatives and their correct use can help allay the client's fear of investing in equities and help them gain much more from these investments and protect the investments from vagaries of volatility.

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