Using the Collar Trade for Downside Protection

Option traders have many advantages over long stock traders. Covered writing, selling naked puts, spreads, and the covered combo are all strategies that work well in bear and sideways markets. No matter how bullish you may be on the stock market, having only long positions that ignore downside market potential can be disastrous.

You should always take the time to examine your open positions, looking for changes or adjustments that can be made to create a better risk profile. Many investors have the bulk of their assets in long stock holdings, so naturally they are nervous whenever the stock market drops. Here we will look at how you can hedge market risk with protective puts, and then go into detail on the collar trade, a popular strategy among institutional traders.

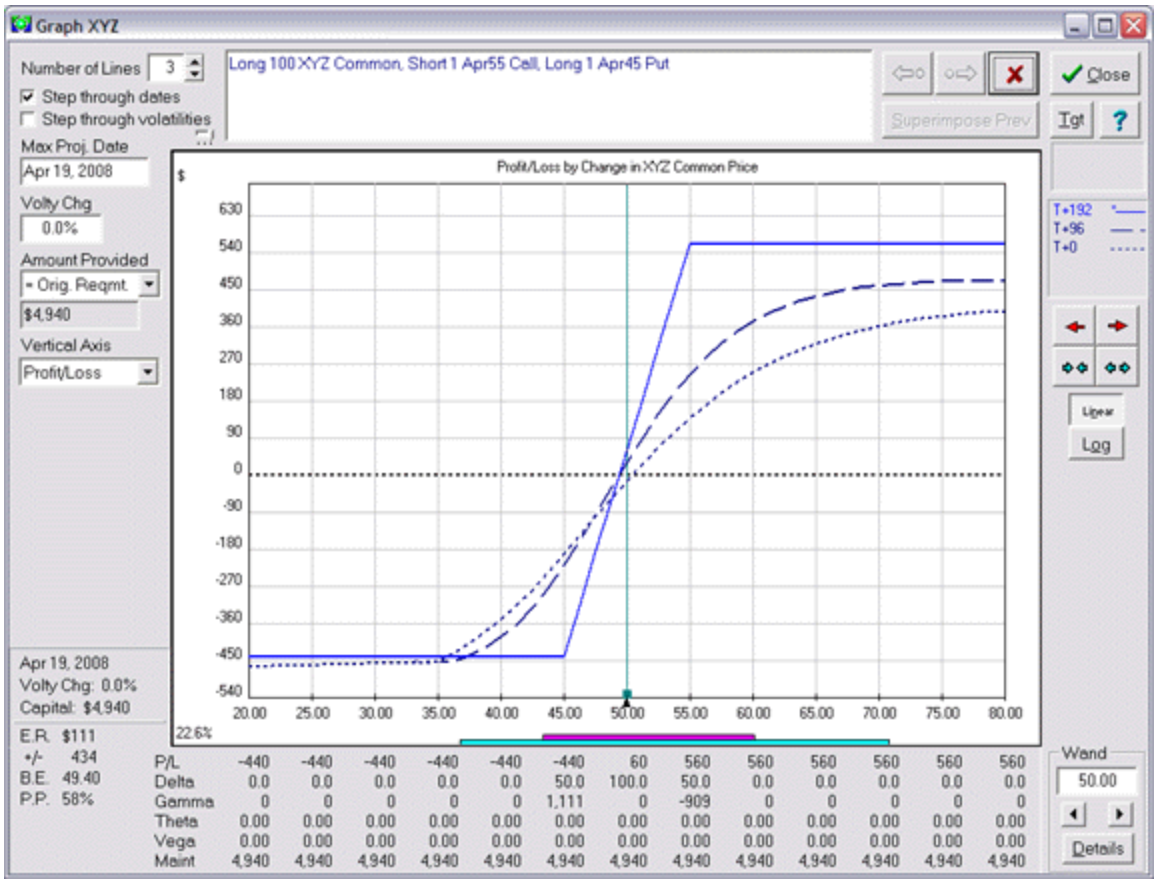
Buying a protective put is the simplest way to protect your gains in a stock without actually selling it. Similar to an insurance policy, it protects you against losses for a fee (the premium paid). The put is a contract that gives you the right to sell a security at a given price - the strike price - on or before a specified date. Suppose you have 100 shares of stock valued at $50, and buy a put option with a strike price of $45. If the stock price drops, you bear the first $5 of losses yourself. Then, no matter how far the stock price drops below $45, you won't lose any more than that $5.

What happens at the option's expiration date? If the stock ends up at more than $45 a share, the option will be worthless. But if the stock price ends up below $45, your gain on the put equals any loss beyond $45 that you incurred. The advantage to this strategy is that if the stock price goes up, you keep all the gains (minus the put premium paid) no matter how high the stock price goes; yet you're perfectly insured below $45. The downside to this strategy is cost. When the stock goes up you resent the expense of the put premiums. Over a long bull market, most investors simply stop buying puts.

One way you can get around the expense of downside protection is to use a collar trade. A collar trade is a hedge that confines your risk to a particular range. To construct the collar trade you first buy a put option for every 100 shares to protect the stock from a drop in price. Then you simultaneously sell call options (1 call option for every 100 shares) to help pay for the puts. On many stocks it is possible to create what is called a "costless" collar, where the money collected selling calls completely pays for the puts.

What the collar trade does is lock you into a protected price band. You are protected if the stock falls below the strike price of the put, but you forfeit any profit above the call's strike price. Let's look at an example

First, let's look at doing a collar trade on a stock you do not own yet, but are interested in buying. While I will use a generic example called XYZ Corporation, the stock and option prices used are based on a real asset trading at this price level. With the stock trading at $50 a share, the April 2008 call with a strike price of $55 had a bid price of $2.65, while the April 2008 put with a strike price of $45 had an asked price of $2.05. The risk graph for this particular collar would look like this (ignoring commissions):

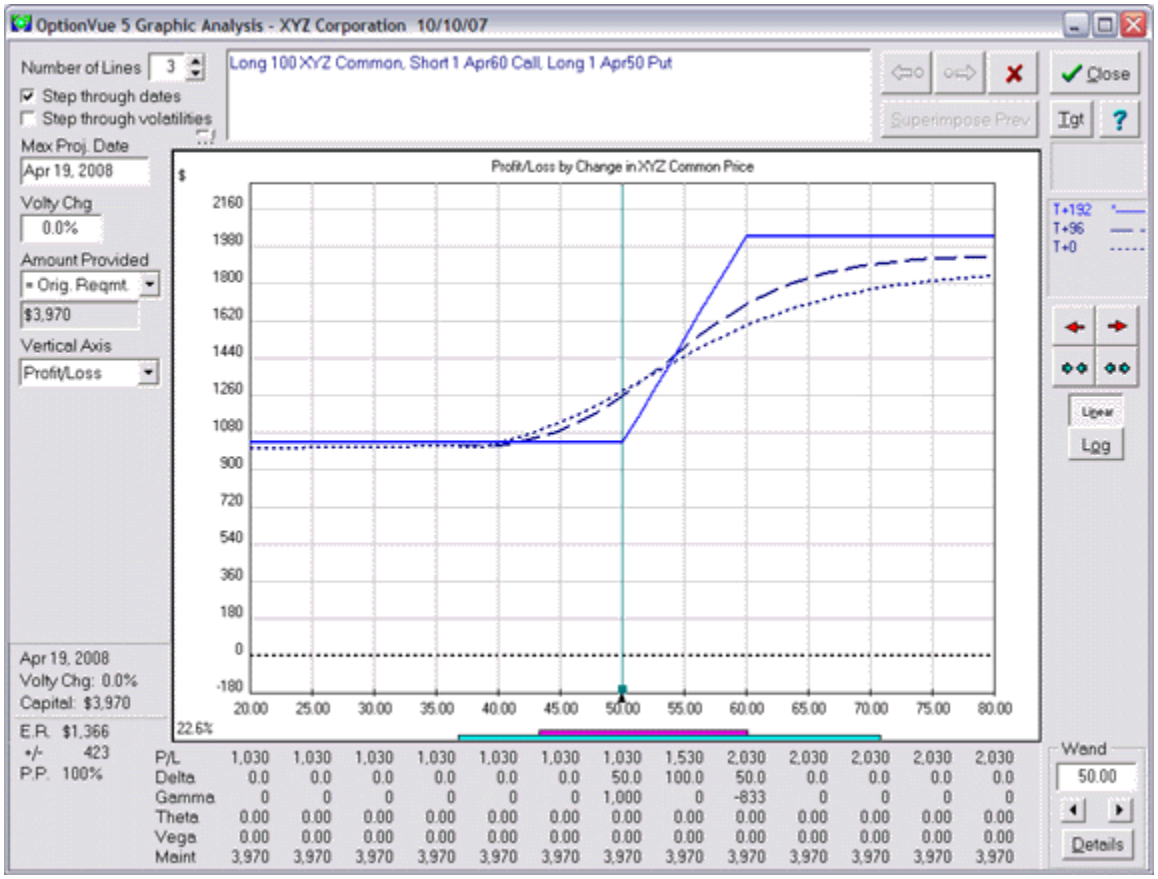


This trade would cost you a total of $4,940 (or $2,440 if you buy the stock on margin). Note that for the options themselves, you would actually receive a small credit of $60 - it would cost $5,000 to simply buy the stock. Now, a number of things could happen to the stock price between today and the April 2008 expiration.

1. The stock price could remain between $45 and $55. In this case, both options will expire worthless and you will still own 100 shares of XYZ Corporation. You actually end up slightly better than if you had simply bought the stock, since you get to keep the $60 net credit you received from the options.
2. The stock price could drop below $45 by the expiration date. In this case, you could lose up to $440 and no more, no matter how far the stock price drops. This is the "floor" established by the collar. For comparison, if the stock price dropped to $40, you would lose $500 if you only owned the stock. And with just a long stock position, your losses would continue to mount if the price dropped further.
3. XYZ Corporation stock could rise past $55. If this happens, your shares will be assigned at $55, no matter how high the stock price climbs. This would result in a profit of $560 for those 192 days, an 11.3% yield (21.5% annualized). Your yield would actually be double those numbers if you were to buy the stock on margin

The collar strategy can be especially helpful if you have unrealized gains to protect. Let's use the same fictitious XYZ Corporation currently trading at $50 a share, but purchased earlier this year for $37.00 a share. With the stock trading at $50 you have a $13 per share gain, giving you a profit of $1,300 on your 100 shares. The collar trade is perfect for protecting this type of gain without having to sell the stock.

Using those same April options, you could buy the 50 put for $4.00 and sell the 60 call for $1.30. Note this is not a "costless" collar like the previous example. I structured the trade in this way to give maximum protection to the downside (starting at $50), while giving the stock price plenty of room to increase further (up to $60). Buying this insurance allows you $10.00 of upside potential and costs the net difference between the price of the options of $270 (plus commissions). The risk graph is shown below:



After doing this trade the worst possible outcome will be a gain of $1,030. This comes at the cost of capping your profit at $2,030 (still a 55% return on the original investment).
There are many ways to structure a collar trade. You can purchase an at-the-money LEAPS put and sell an out-of-the-money LEAPS call. It can also be structured as a no-risk position at expiration by using a call and put at the same strike, if that's the risk profile the trader needs.

What would happen if the underlying stock suddenly dropped substantially, for example due to an accounting scandal, while you have a collar in place? Depending on how far away the option's expiration is, the overall position will probably have a small loss, if the put is bought at a lower strike price than the stock was selling for at the time. But that loss is always less than if you were simply holding the stock with no protection.

Can you make adjustments to increase the overall profitability of the position if the stock price falls dramatically? Of course! The adjustment is to sell the long put, buy back the short call, and then put a new collar on the stock. If the price of the underlying stock has decreased, a profit will be realized on the sale of the long put, and another profit realized on the purchase of the short call.

The new collar will continue to protect the position to the downside at the current price, and allow for profits if the stock were to head higher. This adjustment should not require much, if any, additional cash from your account. And you can always try to structure the new collar so that selling the call finances the cost of the put. It usually makes sense to look at doing an adjustment if the stock has dropped by around 20% or so.
What a powerful strategy! It allows you to lock in your profit, keep a long-term bullish position on, and have limited risk if the stock price collapses.

What if the underlying stock were to take off while you are in a collar? You can just lock in the profits you have already built up. There are a number of ways to do this. One way would be to sell the put, buy back the call, and then put the collar on again using an at-the-money put and an out-of-the-money call similar to the second example above.
Another possibility would be to purchase some in-the-money puts against the long collar. A put ratio backspread might also work well in some situations. There are all types of ways to trade around your core positions. Once you've tried analyzing various scenarios in the matrix with possible collar plays, try designing your own strategies. For example, a "bear put spread" in conjunction with the underlying insures you against loss if the price goes down a modest amount, but leaves you completely exposed to losses if the stock collapses.

The advantage of understanding the collar trade is that it works well in all kind of markets. It is a low-cost way to provide downside protection, allows you to protect existing gains, and is easy to adjust as market conditions change.