

## Examples of the Married Put / Collar Strategy



This is part 3 of 4 articles addressing the concerns associated with covered calls and stocks in general, the possibility of a large price decline. Most investors spend a disproportionate amount of time focusing on returns rather than risk aversion. Using married puts takes the opposite approach; it addresses risk first and then considers return. Most investors expend all their investment analysis time on expected returns. The philosophy in using married puts is to define your maximum losses first and up front rather than anticipating a profit and accepting the risk of a loss. Once the stock position is secure with limited loss, the put insured position can be used to apply other management strategies to generate income and encourage growth.

### The Married Put Setup:

In September of 2007 it appeared like the Hewlett Packard was doing well and continuing an upward trend. Analyst reports were positive, expecting the stock to move from the upper \$40's to the \$60 price range. The following married put position was established:

#### Transaction on September 6, 2007

Buy 1000 Hewlett Packard (HPQ) at	\$50.38
Buy 10 January 09 \$55 Puts at	\$ 8.30
Total Invested	\$58.68
Insured at \$55 for 499 days	<u>-55.00</u>
Total At Risk (6.27%)	3.68

The married put setup established an insured position for HPQ. If HPQ's stock price declined to zero, the position loss would be limited to 3.68 points or 6.27% of the invested capital because of the Jan. 09 put option that we purchased for insurance. If the price of the HPQ stock had remained at \$50 for the following 499 days, it could be sold at \$55 with the exercise of the put option. The loss would be 3.68 points (6.27%), which is the cost of the put option insurance. With this position, we have 499 days to earn income from the position or observe a capital gain from a stock price increase above the put option strike price. It should be noted that the married put position can often be profitable at a stock price lower than the put option strike price because the put will have some time value remaining. The stock price will move up faster than the price of the put declines.

Generally it is best to wait for a 5 or 10% move in the stock to determine the next step in the management process. At the beginning of November, HPQ's stock price was having difficult moving above \$52 and was meeting resistance. After a month of waiting with virtually no change in stock price, a near term call option was sold:

#### Transaction on November 2, 2007

HPQ Stock Price	\$52.40
Sell to open 10 Dec 07 \$52.50	\$2.40
C	

This transaction created a collar position. A covered call with a protective put. Once a call is sold an obligation to deliver the stock was created limiting the upside potential of the stock. But our intent is to earn income from the covered call and not limit our upside potential for the stock. Therefore, if the stock moves several points over the strike price of the call that is sold, it would be bought back and rewritten at a higher strike price or just bought back and allowed to advance without the burden of the covered call.

The call options for HPQ expired worthless on 12/22/2007 because the stock price never rose over the strike price of \$52.50. There was an opportunity to exit this position at the end of November for \$0.30. In retrospect this would have been an opportunity to exit the covered call obligation sooner, but the window of opportunity only lasted a few days. As a rule of thumb it is a good idea to exit the sold call option position if 80% of the premium has been realized and there are more than a few weeks remaining until option expiration. Once the call option price went under \$.50 during the month of November, the December call option should probably have been closed. Rolling out of low premiums into high premiums can substantially enhance returns.

After the December expiration, a January call option was sold on the following Monday:

#### Transaction on December 24, 2007

HPQ Stock Price	\$52.32
Sell to open 10 January 08 \$52.50	\$1.20
C	

The call option premium was not very attractive since there were only 27 days left before the Jan. expiration on 1/19/08. By January 7, the HPQ stock price declined significantly. Intel announced unfavorable industry news and the entire PC Industry experienced price declines. An order was entered to exit the call option for \$.05 and was executed on January 8<sup>th</sup>:

### Transaction on January 8, 2008

HPQ Stock Price	\$43.19
Bought to close 10 Jan 08 \$52.50 C	\$.05



At this point it is probably appropriate to summarize where we stand. The stock that we purchased at \$50.38 is now worth \$43.19. The stock that we expected to go to \$60 is now down 7 points per share or \$7,000. This represents a 14% drop in the stock since purchase over 4 months ago. However, we purchased put options for the 1,000 shares purchased to provide insurance and wrote covered calls to generate income, both of which should help considerably to alleviate the decline. This is how the numbers look so far:

Hewlett Packard stock	\$43.19
Jan 09 \$55.00 Put	\$13.00
Dec 07 \$53.50 CC	\$2.40
Jan 08 \$52.50 CC	\$1.15
Total Value 1/8/2008	\$59.74

In September 07 when this position was created we invested \$58.68, which is now worth \$59.74. There was a 14% decline in the stock and the position is actually up slightly. Between the put option increasing in value and the ability to write covered calls on the stock, the position has been able to maintain its value. At this point, the position is very deeply hedged since an opposite movement in the put option cancels any movement in HPQ stock. Clearly the use of married puts and covered calls has succeeded in insuring the position against a significant loss up to this point in time. Also the position was originally insured for a cost of 3.68 points, but by writing the December and January covered calls we recovered 3.55 points. The insurance has been virtually paid off using these management techniques.

On January 23 HPQ's stock price declined to \$40 per share during the day and it was considered to roll down the put option to a lower strike price, but the stock rebounded over the next few days and the opportunity disappeared. Moving the put strike price down as the stock price falls allows the investor to extract cash from the position and to lower the break even price for the position. Each time the put strike price is lowered it is easier for the investor to take advantage of any stock price rebound and start making money at a lower price because the knee of the married put curve is at a lower price (see Figure 2 in part 2). The plan was to write another covered call at the \$50 strike price, if a market rally carried the stock over \$48, but the rally stopped at about \$46. HPQ's \$40 stock price low was tested on February 7 with high volume but was not penetrated. The following day HPQ's stock price rebounded and formed a double bottom. At this point it appeared the \$40 level would hold and it was decided this created a second opportunity to lower the put strike price on the Jan. 09 \$55 put option:

### Transaction February 20, 2008

HPQ Stock Price	\$44.00
Sell to close Jan. 09 \$55 Put	\$12.20
Buy to open Jan. 09 \$50 Put	<u>\$ 8.60</u>
Net Income	\$ 3.60

Rolling down the put option lowered the insurance investment cost and provided a lower breakeven point in case the stock continued to increase in value. The knee for the price appreciation of the stock (see Fig. 1) would now yield gains after a stock price rise above \$50 instead of the previous \$55 level.

Near the end of February HPQ's stock price once again crossed over \$48 and created an opportunity to write another covered call. Generally a covered call is written for one month out in time in order to maximize the annualized return. However, looking at the option chain for HPQ, it was possible to receive twice the premium for the second month out in time. Therefore, there was no potential return penalty for writing the covered call for the month of April:

### Transaction February 27, 2008

HPQ Stock Price	\$48.94
Sell to open Apr 08 \$50 C	\$1.60

After the April 50 Call expired worthless on 4/19/2008 another covered call was sold on the first Monday after expiration for the same strike price and the next month out in time:

### Transaction April 21, 2008

HPQ Stock Price	\$48.25
Sell to open May 08 \$50 C	\$0.90

The HPQ stock remained flat for most of the month of April and the beginning of May, but spiked up near the middle of May. The upward spike caused some concern because the covered call strike price of \$50 could force a sale of the stock once it moved in the money. Generally, the covered call would be bought back if the stock price moved to more than \$2 or \$3 ITM. A merger announcement between HPQ and EDS had a negative effect on HPQ's stock price and prevented it from continuing the upward trend. Subsequently, the May \$50 call option expired worthless and the July \$50 call option was sold. This position was 2 months out in time because the call option premium was low for the first month and twice as much for the second month out:



**Transaction on May 19, 2008**

HPQ Stock Price	\$47.00
Sell to open July 08 \$50 C	\$0.80

**To summarize for June 12, 2008**

Hewlett Packard stock	\$46.80
January 09 \$50.00 P	\$ 6.00
December 07 \$52.50 C	\$ 2.40
January 08 \$52.50 C	\$ 1.15
Income from Put	\$ 3.60
April 08 \$50 Call	\$ 1.60
May 08 \$50 Call at	\$ .90
Total Value (+6.42%) =	\$62.45

(compared to cost of \$58.68 on 9/6/07)

Even with the HPQ stock down 7%, the value of the position on 6/12/08, if liquidated is up 6.42%. But even better it is not possible to sustain a loss on this position. Between this point of time and January 17, 2009 the HPQ stock could go to **zero** and an exit value of \$59.65 would be guaranteed. This guaranteed return is the result of the protective put option assuring a \$50 sale price for the HPQ stock. On the other hand, the position can still increase dollar for dollar as the price of the HPQ moves over \$50 between this point in time and the January 09 expiration of the insurance. The upside for the stock is unlimited and we have already achieved a guaranteed \$59.65 exit value with the potential for another 5 or 6 covered call writes that could be done to increase income and returns between now and expiration of the put option. As January approaches and the stock movement is strong it is even possible to increase the strike price of the put option to lock in a greater profit. This strategy is flexible and allows the investor to implement different strategies depending on the actual stock movement – all from a position of a guaranteed return and with no downside risk.

During the writing this article HPQ took another fall in stock price. Nothing specific regarding HPQ, but higher crude prices, continued housing and sub-prime problems negatively affected the U.S. economy and markets. The July call option that was sold on May 19<sup>th</sup> continued to lose value. After a sold call option declines to \$.10 or \$.20 it approaches a point of diminishing return with little profit opportunity remaining, therefore the call option was bought back:

**Transaction on June 20, 2008**

HPQ Stock Price	\$45.50
Buy to close July 08 \$50 C	\$0.20

Purchasing this call option back added an additional \$.60 and increased the guaranteed exit value to \$60.25. The January 09 \$50 Put remains in place to protect the position from decline until next year. However the stock continued to weaken with new negative news on the economy for high tech and financial firms. Therefore, there was an opportunity to roll the put down again:

**Transaction on July 10, 2008**

HPQ Stock Price	\$41.25
Sell to close Jan. 09 \$50.00 P	\$9.10
Buy to open Nov. 08 \$47.50 P	\$7.00

This operation brought in another \$2,100 dollars of income by rolling the put down in strike price, but also lowered the breakeven point on our position by lowering its strike price of the put to maintain the insurance. If HPQ stock price exceeds \$47.50 by November 2008 our position has the potential to grow in value dollar for dollar. This married put position was held for the next month as HPQ slowly rose in price. The stock seemed to hit resistance at the \$46 level, therefore we decided the stock rose enough in price to consider a covered call again. Also it was noted that HPQ had earnings due on the 19<sup>th</sup> and as the stock price had gone up the Implied Volatility of the options was going up also. Perhaps the IV move was because of an anticipated earnings surprise. Historically HPQ's volatility had been running in the high 20's, but now it was at 37, just the type of event for creating favorable pricing for covered call writes. Therefore we initiated the following trade:

**Transaction on August 12, 2008**

HPQ Stock Price	\$45.68
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Sell to open Sept. 08 \$47.50 \$1.00  
C

As previously noted, earnings were to be announced on August 19<sup>th</sup> after the close. The day before and on the 19<sup>th</sup> HPQ sold off very sharply. On the 19<sup>th</sup> the option we sold for \$1.00 was selling for only \$.40, a 60% decline in only a few days. After the close, earnings were announced that were surprisingly favorable. HPQ closed up 2.47 points to \$46.16 the next day and the option closed at \$.65. Note that even though the stock price on HPQ was higher than the day we wrote the option for \$1.00, the option was now only \$.65 because the IV returned to more normal values. It was a good thing we were not buying the options on 8/12. We would have seen the stock go up with the favorable earnings report and the call options actually go down by 35%.



Over the next month HPQ remained strong and slowly moved up in price. The day before expiration the stock price was over \$47 or within a few cents of the strike price of our call. Rather than taking the chance of assignment, it was decided to buy the call back on Thursday the day before expiration. This was a judgment call that was difficult, but was correct in retrospect.

#### **Transaction on Sept. 18, 2008**

HPQ Stock Price \$47.14  
Buy to close Sep. 08 \$47.50 \$.43  
C

HPQ closed the next day on Friday Sept. 19<sup>th</sup> at \$48.26. This transaction captured another \$.57 (\$1.00-\$.43) per share of income or \$570 based on the 1,000 shares held. By buying back this call, the pop up in price the next day allowed us to get a nice price for the sale of the October \$50 call as show below. It is often advantageous to sell a covered call the week before expiration to avoid the selling pressure from all those investors rolling their covered calls on the Monday after expiration.

#### **Transaction on Sept. 19, 2008**

HPQ Stock Price \$48.26  
Sell to open Oct. 08 \$50.00 \$1.00  
C

HPQ was in fact weak during the following week. This last covered call transaction expired worthless on October 17<sup>th</sup>. We are now looking for another opportunity to write or manipulate the put. And the story continues on and on ...

Now you have seen that long stock alone and covered calls are not strategies that are protected from major stock losses. You have learned that married puts used in conjunction with covered call selling and put rolling can be a great way to preserve capital invested and still enjoy returns in the stock market. These techniques can work in both up and down markets. In our next and final segment we will show you how to find the best married puts yourself so you can preserve capital in the event of bad stock market conditions while investing for the future growth of your account. PowerOptions has a set of tools specifically tailored to support these strategies.