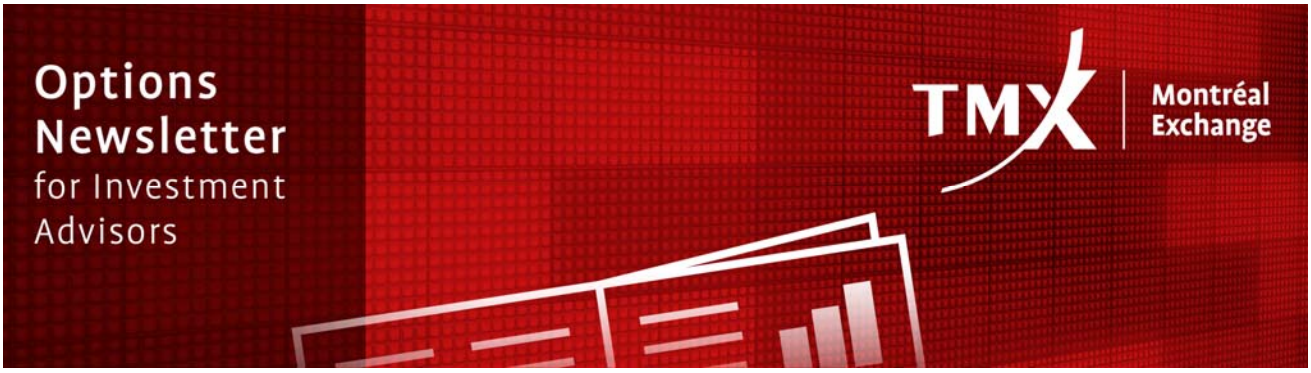

November 2010

The Covered Call Strategy and Some Variations

The covered call is beyond doubt the most popular options strategy used by individual investors. It is a simple strategy that requires an investor to sell one call option contract for every 100 shares of a stock owned. For instance, if one of your clients owns 1,000 shares of XYZ stock, they can then sell 10 call option contracts as each option contract represents 100 shares. By selling the call option contracts your client has the obligation to sell their shares at a predetermined strike price if the options are exercised. In exchange for selling the shares, the investor collects a premium which provides a small measure of protection if the stock price goes down. The premium received by the investor represents additional income that is more than welcome given the current environment of low interest rates. It is crucial that your clients understand that if the stock price is higher than the strike price at the expiration of the option contracts, they must sell their shares. Therefore, they should only implement this strategy if they are willing to let go and sell their shares. As such, it is better to consider the covered call strategy within the context that one is being paid to sell their shares.

Despite the fact that the covered call is a simple strategy to understand, there is more than one way to implement the strategy. Generally, your client's primary objective to implement the strategy is to generate additional income by collecting a premium. However, depending on the strike price chosen, your client may favour opting for more protection or opting for greater capital appreciation.

The following table compares three different call options on XYZ stock:

Current price of XYZ stock = $50	**In-the-Money Option $48**	**At-the-Money Option $50**	**Out-of-the-Money Option $52**
Premium	$2.75	$1.50	$0.75
Break-even	$47.25 (50 - 2.75)	$48.50 (50 - 1.50)	$49.25 (50 - 0.75)
Effective selling price if the option is exercised	$50.75 (48 + 2.75)	$51.50 (50+ 1.50)	$52.75 (52 + 0.75)
Static return	1.59% ((48 - 47.25)/47.25)	3.09% (1.50/48.50)* *Option will not be exercised	1.52% (0.75/49.25)* *Option will not be exercised
Return if the option is exercised	1.59% ((48 - 47.25)/47.25)	3.09% ((50 - 48.50)/48.50)	5.58% ((52 - 49.25)/49.25)

If your client is concerned with the protection side of the strategy, they should sell in-the-money (ITM) options. That is, a call option with a strike price that is lower than the current stock price. The premium of ITM options is greater compared to the premium of out-the-money options (OTM), thus, they offer greater protection in case of a drop in the share price. The call option with a strike price of $48 can be sold for a premium of $2.75 per share. This option offers protection against a drop in the share price up to a breakeven price of $47.25. On the upside, the effective selling price is $50.75, which represents the maximum price for which your client will be able to sell their shares if the stock price is higher than the $48 strike price at the expiration of the option contracts.

On the other hand, if your client's objective is capital appreciation, they should sell OTM options. That is, a call option with a strike price that is higher than the current stock price. This option allows your client to sell their shares at a price higher than the current stock price of $50 if the call option is exercised. However, this OTM option offers a premium that is considerably smaller compared to the ITM option given the premium of $0.75 for the call option with a strike price of $52. In this case, the OTM option only provides your client a cushion of $0.75 for a breakeven price of $49.25. However, if the stock price rises, your client will be able to sell their shares at the effective price of $52.75 compared to the current price of $50 for a profit of $2.75.

Finally, a good trade-off is to choose an at-the-money (ATM) option with a strike price equal to the current stock price. This option offers adequate protection with the potential for reasonable capital appreciation. From the price data provided in the table, the ATM option with a strike price of $50 can be sold for a premium of $1.50. The breakeven price is $48.50 and the effective selling price is $51.50. One of the advantages of ATM options is the fact that they have the greatest static return if the stock price remains unchanged at the expiration of the options contracts. In fact, amongst the three options, it is the ATM option that offers the highest static return with 3.09%.

An investor can execute the covered call strategy occasionally on specific stocks in their portfolio or systematically at each option expiration date by selling call option contracts. Once the call options expire worthless, your client can continue to sell more call options against the shares they own. However, if the call options are exercised, the investor must sell their shares at the strike price. The investor may then buy back the shares and sell new call options against it. This systematic approach is reproduced by the MX Covered Call Writers' Index[1] (MCWX), a passive total return index based on selling near-term at-the-money call options against a long position in the iShares CDN S&P/TSX 60 Fund (XIU). A strategy we discussed in our September issue[2]. By closely observing the fluctuations of the MCWX index, one may have realized that the long-term return of adopting the covered call strategy was very similar to the buy and hold strategy using the XIU with the benefit of lower volatility.

An application of the covered call strategy

The following table shows the results of implementing the covered call strategy on the iShares CDN S&P/TSX 60 Fund (XIU) from June 30, 2008 to September 17, 2010. This period encompasses the financial crisis and the ensuing rally. The table is formed of three portfolios. In the first portfolio, we follow the buy and hold strategy on the XIU. In the second portfolio, we follow the evolution of the covered call strategy using ATM call options. And in the third portfolio, we follow the results obtained from the covered call strategy using ITM call options when the market trend is down, and ATM[3] call options when the market trend is up. The use of ITM options provides a higher level of protection, and is consequently a better choice when the market trend is down. Whereas the use of ATM options offers a lower level of protection but allows for a greater effective selling price, which is an advantage when the market trend is up. The market trend[4] is determined by simply comparing the current stock price to its 55-day moving average. The market is said to be in an uptrend when the price of

[1] For more information on the MCWX index, consult the following Web page http://www.m-x.ca/indicesmx_mcwx_en.php.

[2] http://m-x.ca/f_bulletins_en/September2010.pdf

[3] We use ATM call options since the premium of OTM call options was too low to provide an acceptable investment return.

[4] The market trend indicator may be selected on the basis of investor preference.

the XIU is above its 55-day moving average, and the market is said to be in a downtrend when the price of the XIU is below its 55-day moving average.

	Portfolio XIU	Cumulative	Portfolio Covered call				Cumulative		Portfolio Covered call In function of the trend				Cumulative
Date	**XIU**		**Call**	**Strike Price**	**Premium**	**Effective Price**		**Trend**	**Call**	**Strike Price**	**Premium**	**Effective Price**	
6/30/2008	21.54		XIU SEP	21.50	0.89	20.65		**Down**	XIU SEP	20.25	1.78	19.77	
9/19/2008	19.48				Sell Price	19.48					Sell Price	19.48	
Results	**-2.06**	**-2.06**				**-1.17**	**-1.17**					**-0.29**	**-0.29**
9/19/2008	19.48		XIU DEC	20.00	0.70	18.78		**Down**	XIU DEC	18.00	1.89	17.59	
12/19/2008	12.97				Sell Price	12.97					Sell Price	12.97	
Results	**-6.51**	**-8.57**				**-5.81**	**-6.98**					**-4.62**	**-4.91**
12/19/2008	12.97		XIU MAR	13.00	1.05	11.92		**Down**	XIU MAR	11.00	2.34	10.63	
3/20/2009	13.11				Sell Price	13.00					Sell Price	11.00	
Results	**0.14**	**-8.43**				**1.08**	**-5.90**					**0.37**	**-4.54**
3/20/2009	13.11		XIU JUN	13.00	0.98	12.13		**Up**	XIU JUN	13.00	0.98	12.13	
6/19/2009	15.68				Sell Price	13.00					Sell Price	13.00	
Results	**2.57**	**-5.86**				**0.87**	**-5.03**					**0.87**	**-3.67**
6/19/2009	15.68		XIU SEP	16.00	0.57	15.11		**Up**	XIU SEP	16.00	0.57	15.11	
9/18/2009	17.46				Sell Price	16.00					Sell Price	16.00	
Results	**1.78**	**-4.08**				**0.89**	**-4.14**					**0.89**	**-2.78**
9/18/2009	17.46		XIU DEC	17.00	1.01	16.45		**Up**	XIU DEC	17.00	1.01	16.45	
3/19/2010	17.72				Sell Price	17.00					Sell Price	17.00	
Results	**0.26**	**-3.82**				**0.55**	**-3.59**					**0.55**	**-2.23**
3/19/2010	17.72		XIU JUN	17.50	0.71	17.01		**Up**	XIU JUN	17.50	0.71	17.01	
6/18/2010	17.70				Sell Price	17.50					Sell Price	17.50	
Results	**-0.02**	**-3.84**				**0.49**	**-3.10**					**0.49**	**-1.74**
6/18/2010	17.70		XIU SEP	17.50	0.75	16.95		**Down**	XIU SEP	15.50	2.30	15.40	
9/17/2010	17.81				Sell Price	17.50					Sell Price	15.50	
Results	**0.11**	**-3.73**				**0.55**	**-2.55**					**0.10**	**-1.63**
Total	**-3.73**					**-2.55**						**-1.63**	

We can observe that the covered call strategy offers a greater relative return compared to the buy and hold strategy using XIU with a loss of $2.55 compared to a loss of $3.73 respectively. It is somehow an interesting performance result considering the period covered by this analysis.

The third portfolio, which tracks the results of using the covered call strategy as a function of the market trend, improves the result with a loss of only $1.63 compared to a loss of $2.55 for the covered call strategy using ATM options, and a loss of $3.73 using the buy and hold strategy with XIU.

In conclusion, the covered call strategy is very easy to implement. The strategy generates additional income on the shares held in a portfolio while offering some protection related to the premium received. Depending on the strike price chosen, the level of protection or capital appreciation will be more or less important. This strategy can be executed occasionally on specific stocks held in the portfolio or systematically at each option expiration date[5] by selling call option contracts. Finally, ITM options offer more protection when the market is in a downtrend, whereas ATM and OTM options allow for greater capital appreciation when the market is in an uptrend.

[5] The systematic approach is generally implemented on index-related securities in order to avoid corporate actions (mergers, acquisitions, plans of arrangement).