

# Covered Call Option Strategy

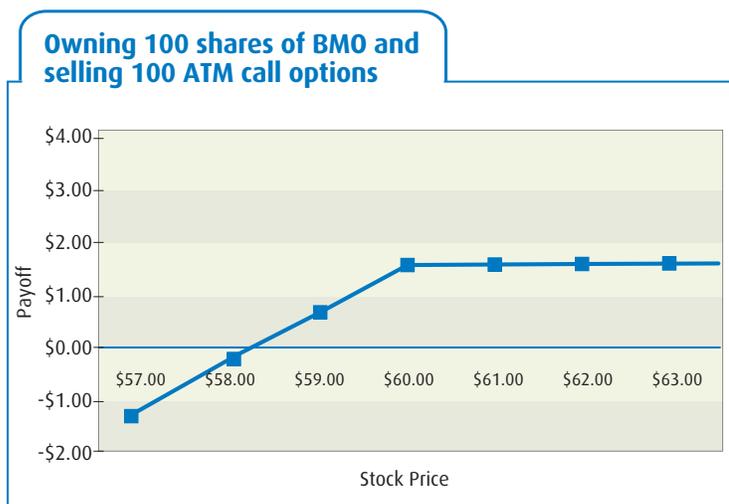
BMO EXCHANGE TRADED FUNDS

The covered call option strategy, also known as a buy-write strategy, is implemented by writing (selling) a call option contract while owning an equivalent number of shares of the underlying stock. This is considered a conservative strategy because it decreases the risk of stock ownership while providing additional income; however, it caps upside potential on significant price increases.

A call option is a contract which allows the purchaser to benefit from a rise in the stock price over a limited time period. Each contract has a stated exercise price which is the price at which the purchaser has the option to buy the underlying stock. If the stock price rises above the exercise price, the purchaser will exercise their option. If the stock price falls below the exercise price, the purchaser will let the worthless option expire. The price of the option will be determined based on the difference between the stock price and the exercise price, the volatility of the underlying stock (where greater volatility leads to a higher price) and the time to expiration of the option contract (where a longer time period leads to a higher price).

The covered call option strategy allows the portfolio to generate income from the written call option premiums in addition to the dividend income from the underlying stocks. Historically, covered call strategies have provided a similar overall return to the underlying portfolio with a significantly lower risk level.

The following chart illustrates the payoff characteristics:



We offer three ETFs that employ a covered call strategy:

- BMO Covered Call Canadian Banks ETF (ZWB)
- BMO Covered Call Utilities ETF (ZUW)
- BMO Covered Call Dow Jones Industrial Average Hedged to CAD ETF (ZWA)
- BMO US High Dividend Covered Call ETF (ZWH)

The BMO Covered Call ETFs are income focused products that are designed to provide equity exposure with a sustainable, attractive yield. The Covered Call ETFs appeal to investors who desire a high level of income, as well as the potential for capital gains.

## ► Mechanics of Covered Calls

The ETFs sell out of the money (OTM) call options which cap the return of the portfolio at the option strike price until the option expires. For BMO ETFs, option expiries are generally 1-2 months.

As an example, consider a portfolio that consists of 100 shares of Bank of Montreal (BMO) at a current price of \$60, for a total value of \$6,000. At the money (ATM) call options (strike price of \$60) that expire in one month are valued at a premium of \$1.50 per contract. To implement a covered call strategy, the portfolio writes call options on 100 BMO shares and receives \$150 in premium.

**Payoff without exercise:** Premium received adjusted for any difference in stock price.

If the stock price remains at \$60, the calls are not exercised, and the portfolio benefits from the premium received. The new portfolio value is \$6,150.

**Break even point:** Stock purchase price less premium received.

If the stock price drops to \$58.50, the calls are not exercised, but the portfolio value drops. The new portfolio value is \$6,000 (\$5,850 + \$150) which is the break-even point. The portfolio will devalue at any price below \$58.50.

**Payoff with exercise:** Premium received adjusted for any difference between stock price and exercise price.

If the stock price rises to \$62, the calls are exercised at \$60 eliminating the benefit of the rising stock price except for the premium received. The new portfolio value is \$6,150.

## ► Impact of Market Conditions

Covered call strategies tend to outperform in flat or down markets, and underperform in periods of rapid market appreciation.

The covered call option strategy is most effective when the underlying stocks are range bound, meaning that the stock's price is not overly volatile. The strategy will participate in the modest stock appreciation up to the strike price, with the added benefit of the sold call premium.

When the stock price rises significantly and exceeds the strike price, the call option will move into the money. This caps the gain for the call writer based on the strike price and premium received.

The strategy provides limited protection when the stock price declines significantly, as the decline of the underlying stock portfolio is partially offset by the call premium received.

In volatile or choppy markets, the covered call option strategy will provide the exposure of the underlying stock portfolio with less volatility. The covered call strategy may outperform or underperform the underlying stock portfolio under these conditions.

## ► Call Writing Implementation

For the BMO Covered Call ETFs, the calls are written in proportion to the security weights in the underlying portfolio. The written percentage of the portfolio is consistent across securities. This call option writing strategy is consistent across all the BMO Covered Call ETFs. OTM options are sold on at least 50% of the portfolio, depending on market conditions. This gives the investor an enhanced yield and still allows for participation in rising markets.

The selection of the option's strike price will depend on the implied volatility of the option and general economic conditions. We sell

further OTM when volatility rises and closer to the money when volatility drops. When volatility rises, the option increases in price. This allows us to select further OTM options and still maintain our desired level of call premiums. This dynamic selection process allows the ETF to have further upside participation in volatile markets. Conversely, if volatility decreases, we select options that are closer to the market price, as there is less potential for significant short term price appreciation.

We sell options with 1 to 2 months to expiry in order to take maximum advantage of time decay. Options experience more time decay impact, the closer they are to expiry. Options are generally held until expiry.

## ► Glossary

**ATM** – A call option is “At the Money” when the underlying stock price is equal to the strike price of the option.

**Call Option** – A call option gives the buyer the right, but not the obligation, to buy the underlying stock at an agreed upon price (“Strike Price”) until the expiry date of the option.

**Covered Call** – A covered call position owns underlying shares, and sells call options against the underlying shares. If the calls are exercised, the underlying shares are delivered to the owner of the call option, and the covered call writer receives an amount equal to the strike price multiplied by the number of calls exercised. If the calls are not exercised, then a covered call strategy keeps the premium received for selling the calls, in addition to continuing to own the underlying shares.

**Exercise** – When the owner of the option executes the right to purchase the underlying stock for the strike price. The seller of the option must deliver the underlying shares to the owner of the option, and in return receives a cash amount equal to the strike price multiplied by the number of call options exercised.

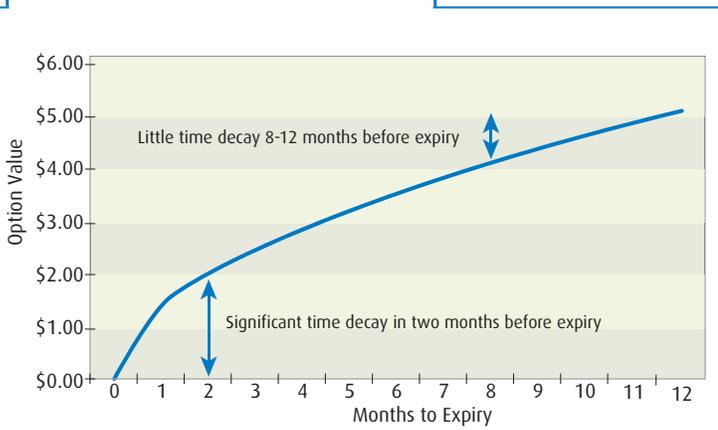
**ITM** – A call option is “In the Money” when the underlying stock price is greater than the strike price of the option.

**OTM** – A call option is “Out of the Money” when the underlying stock price is less than the strike price of the option.

**Premium** – The dollar amount paid by the buyer, and received by the seller of the call option.

**Strike Price** – The price at which the underlying stock can be purchased before the maturity date. At maturity, the call option will have positive value to the buyer if the underlying stock price is greater than the strike price. At maturity, if the stock price is less than the strike price, then the option will expire worthless.

### An Example of Time Decay



**Time Decay** – The process by which the option loses a portion or all of its value as the option approaches maturity. The time value of an option is determined by the time to expiry, the underlying share price, strike price, underlying volatility, and is associated with the potential of the option to increase its value prior to expiry. Time Decay is earned by the option seller.

**Volatility** - A measure of the variability/risk of the underlying stock. Higher volatility stocks will imply higher option prices, and lower volatility stocks imply lower option prices. For the option seller, higher volatility means that equivalent premiums can be earned by selling options that are further out of the money (OTM). Lower volatility will result in selling options less OTM in order to earn an equivalent amount of premium.

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