



# **MONTRÉAL EXCHANGE**

# **Bull Call Spread**

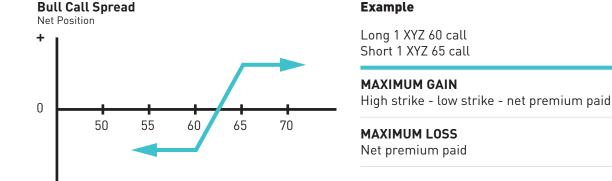
(Debit Call Spread)

#### **Description**

A bull call spread is a type of vertical spread. It contains two calls with the same expiration but different strikes. The strike price of the short call is higher than the strike of the long call, which means this strategy will always require an initial outlay (debit). The short call's main purpose is to help pay for the long call's upfront cost.

Up to a certain stock price, the bull call spread works a lot like its long call component would as a standalone strategy. However, unlike with a plain long call, the upside potential is capped. That is part of the tradeoff; the short call premium mitigates the overall cost of the strategy but also sets a ceiling on the profits.

A different pair of strike prices might work, provided that the short call strike is above the long call's. The choice is a matter of balancing risk/reward tradeoffs and a realistic forecast.



The benefit of a higher short call strike is a higher maximum to the strategy's potential profit. The disadvantage is that the premium received is smaller, the higher the short call's strike price.

It is interesting to compare this strategy to the bull put spread. The profit/loss payoff profiles are exactly the same, once adjusted for the net cost to carry. The chief difference is the timing of the cash flows. The bull call spread requires a known initial outlay for an unknown eventual return; the bull put spread produces a known initial cash inflow in exchange for a possible outlay later on.

#### Outlook

Looking for a steady or rising stock price during the life of the options. As with any limited-time strategy, the investor's long-term forecast for the underlying stock isn't as important, but this is probably not a suitable choice for those who have a bullish outlook past the immediate future. It would require an accurately timed forecast to pinpoint the turning point where a coming short-term dip will turn around and a long-term rally will start.

#### **Summary**

This strategy consists of buying one call option and selling another at a higher strike price to help pay the cost. The spread generally profits if the stock price moves higher, just as a regular long call strategy would, up to the point where the short call caps further gains.

#### **Motivation**

Profit from a gain in the underlying stock's price without the up-front capital outlay and downside risk of outright stock ownership.

#### **Variations**

A vertical call spread can be a bullish or bearish strategy, depending on how the strike prices are selected for the long and short positions. See bear call spread for the bearish counterpart.

#### Max Loss

The maximum loss is very limited. The worst that can happen is for the stock to be below the lower strike price at expiration. In that case, both call options expire worthless, and the loss incurred is simply the initial outlay for the position (the net debit).

#### **Max Gain**

The maximum gain is capped at expiration, should the stock price do even better than hoped and exceed the higher strike price. If the stock price is at or above the higher (short call) strike at expiration, in theory, the investor would exercise the long call component and presumably would be assigned on the short call. As a result, the stock is bought at the lower (long call strike) price and simultaneously sold at the higher (short call strike) price. The maximum profit then is the difference between the two strike prices, less the initial outlay (the debit) paid to establish the spread.

## **Profit/Loss**

Both the potential profit and loss for this strategy are very limited and very well-defined: the net premium paid at the outset establishes the maximum risk, and the short call strike price sets the upper boundary beyond which further stock gains won't improve the profitability. The maximum profit is limited to the difference between the strike prices, less the debit paid to put on the position.

#### **Breakeven**

This strategy breaks even at expiration if the stock price is above the lower strike by the amount of the initial outlay (the debit). In that case, the short call would expire worthless and the long call's intrinsic value would equal the debit.

Breakeven = long call strike + net debit paid

#### **Volatility**

Slight, all other things being equal. Since the strategy involves being long one call and short another with the same expiration, the effects of volatility shifts on the two contracts may offset each other to a large degree.

Note, however, that the stock price can move in such a way that a volatility change would affect one price more than the other.

## **Time Decay**

The passage of time hurts the position, though not as much as it does a plain long call position. Since the strategy involves being long one call and short another with the same expiration, the effects of time decay on the two contracts may offset each other to a large degree.

Regardless of the theoretical price impact of time erosion on the two contracts, it makes sense to think the passage of time would be somewhat of a negative. This strategy requires a non-refundable initial investment. If there are to be any returns on the investment, they must be realized by expiration. As expiration nears, so does the deadline for achieving any profits.

# **Assignment Risk**

Early assignment, while possible at any time, generally occurs only when the stock goes ex-dividend. Be warned, however, that using the long call to cover the short call assignment will require establishing a short stock position for one business day, due to the delay in assignment notification.

And be aware, any situation where a stock is involved in a restructuring or capitalization event, such as a merger, takeover, spin-off or special dividend, could completely upset typical expectations regarding early exercise of options on the stock.

# **Expiration Risk**

Yes. If held into expiration this strategy entails added risk. The investor cannot know for sure until the following Monday whether or not the short call was assigned. The problem is most acute if the stock is trading just below, at or just above the short call strike.

Assume that the long call is in-the-money and that the short call is roughly at-the-money. Exercise (stock purchase) is certain, but assignment (stock sale) isn't. If the investor guesses wrong, the new position on Monday will be wrong, too. Say, assignment is expected but fails to occur; the investor will unexpectedly be long the stock on the following Monday, subject to an adverse move in the stock over the weekend. Now assume the investor bet against assignment and sold the stock in the market instead; come Monday, if assignment occurred, the investor has sold the same shares twice for a net short stock position, and is exposed to a rally in the stock price.

Two ways to prepare: close the spread out early or be prepared for either outcome on Monday. Either way, it's important to monitor the stock, especially over the last day of trading.