

# MONTREAL EXCHANGE

# Bull Put Spread (Credit Put Spread)

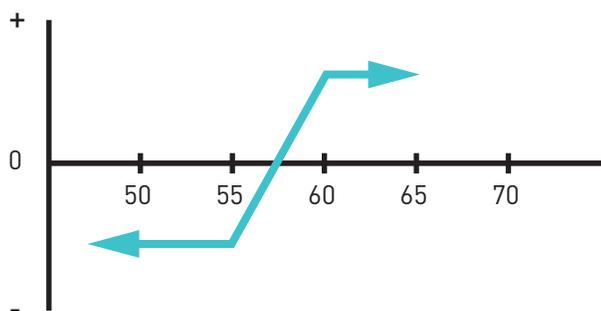
## Description

A bull put spread involves being short a put option and long another put option with the same expiration but with a lower strike. The short put generates income, whereas the long put's main purpose is to offset assignment risk and protect the investor in case of a sharp move downward. Because of the relationship between the two strike prices, the investor will always receive a premium (credit) when initiating this position.

This strategy entails precisely limited risk and reward potential. The most this spread can earn is the net premium received at the outset, which is likeliest if the stock price stays steady or rises.

If the forecast is wrong and the stock declines instead, the strategy leaves the investor with either a lower profit or a loss. The maximum loss is capped by the long put. It is interesting to compare this strategy to the bull call 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 and the potential for early assignment.

**Bull Put Spread**  
Net Position



## Example

Short 1 XYZ 60 put  
Long 1 XYZ 55 put

### MAXIMUM GAIN

Net premium received

### MAXIMUM LOSS

High strike - low strike - net premium received

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 rise in the underlying stock's price during the options' term.

While the longer-term outlook is secondary, there is an argument for considering another alternative if the investor is bullish on the stock's future. It would take careful pinpointing to forecast when an expected decline would end and the eventual rally would start.

## Summary

A bull put spread is a limited-risk, limited-reward strategy, consisting of a short put option and a long put option with a lower strike. This spread generally profits if the stock price holds steady or rises.

## Motivation

Investors initiate this spread either as a way to earn income with limited risk, or to profit from a rise in the underlying stock's price, or both.

## Variations

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

## Max Loss

The maximum loss is limited. The worst that can happen is for the stock price to be below the lower strike at expiration. In that case, the investor will be assigned on the short put, now deep-in-the-money, and will exercise their long put. The simultaneous exercise and assignment will mean buying the stock at the higher strike and selling it at the lower strike. The maximum loss is the difference between the strikes, less the credit received when putting on the position.

## Max Gain

The maximum gain is limited. The best that can happen is for the stock to be above the higher strike price at expiration. In that case, both put options expire worthless, and the investor pockets the credit received when putting on the position.

## Profit/Loss

Both the potential profit and loss for this strategy are very limited and very welldefined. The initial net credit is the most the investor can hope to make with the strategy. Profits at expiration start to erode if the stock is below the higher (short put) strike, and losses reach their maximum if the stock falls to, or beyond, the lower (long put) strike. Below the lower strike price, profits from exercising the long put completely offset further losses on the short put.

The way in which the investor selects the two strike prices determines the maximum income potential and maximum risk. By selecting a higher short put strike and/or a lower long put strike, the investor can increase the initial net premium income. However, it may be interesting to experiment with the Position Simulator to see how such decisions would affect the likelihood of short put assignment and the level of protection in the event of a downturn in the underlying stock.

## Breakeven

This strategy breaks even if, at expiration, the stock price is below the upper strike (short put strike) by the amount of the initial credit received. In that case, the long put would expire worthless, and the short put's intrinsic value would equal the net credit.

**Breakeven = short put strike - net credit received**

## Volatility

Slight, all other things being equal. Since the strategy involves being short one put and long 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 helps the position, though not quite as much as it does a plain short put position. Since the strategy involves being short one put and long 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 impact of time erosion on the two contracts, it makes sense to think the passage of time would be a positive. This strategy generates net up-front premium income, which represents the most the investor can make on the strategy. If there are to be any claims against it, they must occur by expiration. As expiration nears, so does the date after which the investor is free of those obligations.

## Assignment Risk

Yes. Early assignment, while possible at any time, generally occurs only when a put option goes deep into-the-money. Be warned, however, that using the long put to cover the short put assignment will require financing a long stock position for one business day.

And be aware, a situation where a stock is involved in a restructuring or capitalization event, such as for example 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 whether or not they will be assigned on the short put until the Monday after expiration. The problem is most acute if the stock is trading just below, at or just above the short put strike.

Say, the short put ends up slightly in-the-money, and the investor sells the stock short in anticipation of being assigned. If assignment fails to occur, the investor won't discover the unintended net short stock position until the following Monday and is subject to an adverse rise in the stock over the weekend.

There is risk in guessing wrong in the other direction, too. This time, assume the investor bets against being assigned. Come Monday, if assignment occurs after all, the investor has a net long position in a stock that may have lost value over the weekend.

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.