

# **The Bull Put Spread**

- Credit Spread
- Defined Risk
- Defined Reward
- Mildly Bullish
- High Probability



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# 1. The Bull Put Spread Explained

The bull put spread is an extension of the short put strategy. To limit the down- side risk an investor simply buys an additional put at a strike price below the short put strike price. This places a limit on your risk in the trade. Imagine the following scenario:

- You are looking at a high probability trade in the QQQ.
- The QQQ is trading at \$108.45.
- You believe the price will stay above \$105 between now and expiry in 4 weeks.
- You want to place a trade that will reflect your outlook but at the same time you
  want to know exactly what your risk will be if your outlook is incorrect.

Welcome to the bull put spread!

#### 1.1. Short Explainer Video

**CLICK HERE** to view.

## 1.2. A word on Credit Spreads

Before you read on simply remember that the **Bull Put Spread is a 'CREDIT SPREAD'**.

In very simple terms, a spread is an option strategy, or position, that is composed of both long option contracts and short option contracts, of the same type (call or put), and on the same underlying stock (or index). The sides of a spread, i.e., the long option(s) and the short option(s), are commonly called the "legs" of the position, and for most spreads, each leg would by itself benefit from an opposite move, bullish or bearish, in the underlying stock (or index). As opposed to the outright purchase or sale of calls or puts, spreads are termed "complex" strategies, a term that reflects their composition (of different pieces) rather than any level of difficulty in understanding their use.

Spreads can be broadly categorized: vertical spreads, horizontal spreads and diagonal spreads (or variations thereof). Each of these may further be categorized by type: call (composed of only call contracts) or put (composed of only put contracts). The profit & loss profiles of each spread category will be somewhat different. Let's take a closer look at these terms:

 Vertical (call or put) – legs have same expiration months but different strike prices



- Horizontal (call or put) legs have same strike prices but different expiration months (also called time spreads or calendar spreads)
- **Diagonal (call or put)** combination of vertical or horizontal characteristics (different strike prices and expiration months)

The spreads most commonly used by investors are vertical spreads and horizontal spreads.

Another category of widely used complex option strategies comprising two legs, but which are not by definition spread, are straddles and strangles. These don't follow our definition of spreads literally, because they are composed of both calls and puts, either all long contracts or all short ones. However, the two legs of each of these strategies can be characterized as one bullish and one bearish. For educational purposes, or for sake of convenience, we will include these strategies in the larger family of spreads.

In terms of cash flow upon establishing spread, straddle or strangle positions, there are debit spreads and credit spreads:

- Debit spreads total cash amount paid out for purchased (long) options is greater than the total cash amount received for sold (short) options
- **Credit spreads** total cash amount received for sold (short) options is greater than the total cash amount paid out for purchased (long) options

Generally, a debit spread will be established (or purchased) at a net debit but will be closed (sold or liquidated) at a net credit. The opposite is true for credit spreads; they may initially be established (or sold) for a net credit, but will be closed (bought back or liquidated) at a net debit. Sometimes, however, a spread may be established or closed for "even money," or with the total cash amount paid out equaling the total cash amount received.

#### 1.3. Construction

The bull put spread is made up entirely of put options on the same underlying stock (or index). It's constructed by selling a put option at one strike price and purchasing a put with a lower strike price but the same expiration month. The ratio of long puts to short



must be 1:1. The result is a position consisting of a short put (higher strike) and a long put (lower strike). An investor with this position can be said to hold a bull put spread.

## Bull put spread = sell higher-strike put + buy lower-strike put

#### 1.4. Debit vs. Credit

Since the long, lower-strike put will cost less than the premium received for the short, higher strike put with the same expiration, a bull put spread will always be established at a net credit.

In other words, the amount of cash received is more than the cash paid out.

## **Bull Put spread = credit spread**

## 1.5. Example

Look at the option quote for the QQQ below:

				C108	3.45 🕜 👓 ×
Description	Bid	Ask	<b>Put</b> Delta	Gamma	Theta
▼ MAY 27 '16					
100	<b>•</b> 0.27	0.30 +	-0.0858	0.0231	-0.0174
101	• 0.34	0.36 •	-0.1054	0.0280	-0.0195
102	<b>•</b> 0.43	0.45 +	-0.1300	0.0337	-0.0219
103	• 0.54	0.56 +	-0.1618	0.0404	-0.0244
104	• 0.68	0.70 +	-0.1988	0.0479	-0.0268
105	• 0.85	0.87 •	-0.2451	0.0560	-0.0289
106	<b>•</b> 1.06	1.09 +	-0.2990	0.0644	-0.0306
107	• 1.34	1.36 •	-0.3623	0.0730	-0.0317
108	<b>•</b> 1.67	1.69 +	-0.4359	0.0797	-0.0315
109	<ul><li>2.04</li></ul>	2.11 •	-0.5175	0.0848	-0.0304
110	<b>•</b> 2.52	2.60 +	-0.6065	0.0865	-0.0279



To establish a bull put spread with QQQ options, we might sell 1 QQQ May 27th \$105 put for \$0.85, and at the same time buy 1 QQQ May 27th \$104 put for \$0.70. The result is us holding 1 QQQ May 27th \$105/\$104 bull put spread, at a \$0.15 (\$0.85 – \$0.70) net credit or \$15 in total.

This doesn't sound like much but hold your judgment for a while.

The bull put spread is a moderately bullish position. We are bullish on the QQQ and expect to profit from an increase in its price. However, it's a moderately bullish position since we generally expect QQQ to increase up to or slightly above the \$105 short put's higher strike price by expiration. Above that level, the profit is capped. A more bullish investor might instead simply buy calls, buy a bull call spread or simply purchase the stock.

**Bull Put Spread: moderately bullish** 

## 1.6. Motivation for Spreading

Since we are only moderately bullish on QQQ the risk of selling the \$105 put on its own might represent more downside risk than we are willing to take. By purchasing the lower-strike \$104 put, the downside risk of the \$105 short put is covered and in effect reduced by the long put if our bullish forecast is incorrect and the share price of QQQ falls. The trade-off for buying downside protection in this manner is the reduced upside profit potential on the short put contract.

Bull Put Spread: reduce downside risk of short put



#### 1.7. Maximum Profit

The maximum upside profit for a bull put spread is limited to the net credit initially received when establishing it. This profit will be seen if QQQ closes at or above the \$105 higher strike price of the short put at expiration.

## Max Profit Bull Put Spread = Credit Received

Max profit in the QQQ May 27th \$105/\$104 Bull put spread = \$0.15 or \$15 per contract.

When we compare the \$105/\$104 bull put spread to the \$105 short put strategy you can see that the profit potential is higher with the short put. See matrix below:

	\$105/\$104 Bull Put Spread	Short \$105 put
Max Profit	\$15	\$85

This is an obvious downside to the strategy but you should hold your judgment for now. We will demonstrate later that the risk is a lot lower and when measured on a return on investment basis, the bull put spread can offer better returns.

#### 1.8. Maximum Loss

The maximum downside loss for a bull put spread is limited to the difference between the puts' strike prices, less the credit initially received for the spread. This loss will be seen if QQQ closes at or below the lower \$104 strike price of the long put at expiration, no matter how low QQQ declines.

#### Maximum loss = difference in strike prices - net credit received

The maximum loss for the QQQ May 27th \$105/\$104 Bull Put Spread: \$1 (difference between \$105/\$104) - \$0.15 (Credit Received) = \$0.85 or \$85 per contract.

If the price of QQQ falls below \$104 at expiry we will make our maximum loss. This is the real benefit of this strategy versus the short put strategy. If we placed the \$105 short put on the QQQ instead and we are incorrect in our forecast, our losses continue to



mount as the share price falls. On the flip side with the bull put spread, losses are capped.

#### See matrix below:

	\$105/\$104 Bull Put Spread	Short \$105 put
Max Profit	\$15	\$85
Max Loss	\$85	Unlimited

#### 1.9. Return on Investment

When you looked at the premium received for this trade, you might have balked at the mere \$15 per contract that you were receiving. But take into consideration that you are only risking \$85 to make the \$15.

#### Return on investment is calculated as follows:

# (profit potential divided cost of the trade) multiplied by 100

In our QQQ example,

Looking at the figures now from a return on investment perspective, 17.65% in 1 month is very impressive. When we discuss probability later you will see just how impressive this return is.

	\$105/\$104 Bull Put Spread	Short \$105 put
Max Profit	\$15	\$85
Max Loss	\$85	Unlimited
ROI/Margin	17.65%	4.11%



### 1.10. Break-Even Point (Short Term Expiry)

The break-even price for a bull put spread at expiration is a closing QQQ price equal to the \$105 higher strike price of the short put minus the \$0.15 credit received for the spread.

### Break-even price = higher strike price - net credit received

The break-even price for the QQQ May 27th \$105/\$104 Bull Put Spread = \$105 (higher strike) minus \$0.15 (credit received) = \$104.85.

In other words, the share price can fall to \$104.85 at expiration and we still make a profit. When we compare, the bull put spread to the short put, you can see that the short put offers a lower and better break-even price. See below:

	\$105/\$104 Bull Put Spread	Short \$105 put
Max Profit	\$15	\$85
Max Loss	\$85	Unlimited
ROI/Margin	17.65%	4.11%
Break-Even price	\$104.85	\$104.15

#### 1.11. Downside Leeway

When you buy a stock the only way you can profit is when the share price rises or when you get paid a dividend. Another major advantage of the bull put spread strategy is the downside leeway it gives you. The share price of QQQ could fall by a certain amount and we would still make a profit.

Remember in our QQQ example. The share price of QQQ was \$108.45 when we placed the \$105/\$104 bull put spread. The breakeven on the strategy is \$104.85. This means that the share price of QQQ could fall \$3.60 (\$108.45-\$104.85) before we make a loss at expiration. This is the equivalent of a 3.32% fall in the value of the QQQ share price. We call this the 'downside leeway'.



Now let's consider our chances of making a profit. Which is more likely, QQQ to close above \$104.85 or QQQ to close above \$108.45? Obviously, QQQ has a much better chance of closing above \$104.85. Most online brokers will tell you the probability of profit on every option trade you place. The probability with the QQQ \$105/\$104 bull put spread example was 78%.

Does this mean we are guaranteed to make profit? No, but it means that we have much better odds.

In fact, when you buy a share you only have a 50/50 chance of profit. That's why using the bull put spread strategy is more likely to produce a profit than buying the shares. When we compare the bull put spread to the short put the downside leeway is slightly lower and therefore the probability of profit of profit will be lower also.

	\$105/\$104 Bull Put Spread	Short \$105 put
Max Profit	\$15	\$85
Max Loss	\$85	Unlimited
ROI/Margin	17.65%	4.11%
Break-Even price	\$104.85	\$104.15
Downside leeway	3.32%	3.96%
Probability of profit	78%	81%

When you are deciding which strategy is right for you, you must weigh up the probability of profit versus the risk versus the reward. Every investor is different, so there is no right or wrong answer. But take this as a word of caution, most of us by our very nature, will look at the higher reward scenario. Unfortunately, we do not consider the risks enough. A great exercise to help here is to create the profit and loss tables for each strategy and then ask yourself, if the share price fell to X or Y, could I handle the loss?



#### 1.12. Partial Profit or Loss

At expiration, if QQQ closes between the break-even price and either of the two strike prices, either a partial loss or partial profit would be seen. Above the break- even price there would be a partial profit; below the break-even price there would be a partial loss.

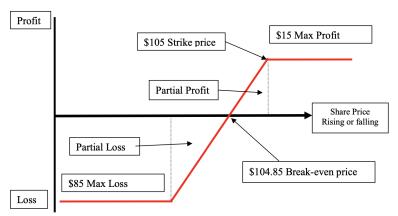


Figure 1: Profit and Loss Dynamics for the QQQ \$105/\$104 Bull Put Spread

#### 1.13. Profit & Loss Before Expiration

Before expiration, an investor can take a profit or cut a loss by purchasing the spread in the marketplace. This involves selling the long put and buying the short put, which will be done at a net debit, and these closing trades may be executed simultaneously in one spread transaction. Profit or loss would simply be the net difference between the credit initially received for the spread and the debit paid to close it.

### 1.14. Profit and Loss Table

**CLICK HERE** to watch a video showing you how to do P&L tables for the Bull Put spread.

It is important for you to get into the habit of creating profit and loss tables. Here is an example of a P&L table for the QQQ May 27th \$105/\$104 Bull Put Spread. Remember the spread:



QQQ price at	Short 105 Put	Long 104 Put	Credit	Spread
Expiration	Value	Value	Received	Profit/Loss
\$101	- \$400	+ \$300	+\$15	-\$85
\$102	- \$300	+ \$200	+\$15	-\$85
\$103	- \$200	+\$100	+\$15	-\$85
\$104	- \$100	0	+\$15	-\$85
\$105	0	0	+\$15	+\$15
\$106	0	0	+\$15	+\$15
\$107	0	0	+\$15	+\$15
\$108	0	0	+\$15	+\$15
\$109	0	0	+\$15	+\$15
\$110	0	0	+\$15	+\$15

As you can see from the above P&L table you are risking \$85 to make \$15 for an ROI of 17.65% with a 78% probability of profit. Not bad, I think you will agree?

# 1.15. Impact of Volatility

The financial impact of a change in volatility depends on whether one or both of the puts are in-the-money and the amount of time until expiration. It is best to place the bull put spread when implied volatility is high.

# 1.16. Impact of Time Decay (Theta)



For a bull put spread, if the underlying stock (or index) is closer to the lower strike of the long put, losses should increase at a faster rate as time passes. Conversely, if the underlying stock (or index) is closer to the higher strike of the short put, profits should increase at a faster rate with time. Look at the put option quotes on QQQ again:

				C108	3.45 🥜 😘 🔻
Description	Bid	Ask	<b>Put</b> Delta	Gamma	Theta
▼ MAY 27 '16					
100	<b>•</b> 0.27	0.30 +	-0.0858	0.0231	-0.0174
101	• 0.34	0.36 •	-0.1054	0.0280	-0.0195
102	<b>+</b> 0.43	0.45 +	-0.1300	0.0337	-0.0219
103	• 0.54	0.56 •	-0.1618	0.0404	-0.0244
104	<b>+</b> 0.68	0.70 +	-0.1988	0.0479	-0.0268
105	• 0.85	0.87 •	-0.2451	0.0560	-0.0289
106	<b>+</b> 1.06	1.09 +	-0.2990	0.0644	-0.0306
107	• 1.34	1.36 •	-0.3623	0.0730	-0.0317
108	<b>•</b> 1.67	1.69 •	-0.4359	0.0797	-0.0315
109	<ul><li>2.04</li></ul>	2.11 •	-0.5175	0.0848	-0.0304
110	<b>•</b> 2.52	2.60 +	-0.6065	0.0865	-0.0279

We have two positions to consider for our bull put spread:

First, we are short on the \$105 put. The theta value is -0.0289. But remember we sold the \$105 put so the theta sign changes to +0.0289.

Second, we bought the QQQ \$104 Put. The theta value of the \$104 put is -0.0268.

This gives us a net theta for QQQ May 27th \$105/\$104 Bull Put spread of +0.0021 (0.0289-0.0268).

This means that the time value of the \$105/\$104 bull put spread will erode by \$0.0021 per share or \$0.21 total per day. Now theta is working to our advantage as the value of the bull put spread continues to decay as time passes.

**CLICK HERE** to watch a video on the impact of Theta on the Bull Put Spread.

#### 1.17. Impact of Delta



Delta is the rate of change in the value of an option for a \$1 move in the underlying share price. Look at the QQQ put option quotes below:

				C108	3.45 🧳 🕫 🔻
Description	Bid	Ask	<b>Put</b> Delta	Gamma	Theta
▼ MAY 27 '16 100	• 0.27	0.30 +	-0.0858	0.0231	-0.0174
101	<b>•</b> 0.34	0.36 •	-0.1054	0.0280	-0.0195
102	• 0.43	0.45 +	-0.1300	0.0337	-0.0219
103	• 0.54	0.56 +	-0.1618	0.0404	-0.0244
104	• 0.68	0.70 +	-0.1988	0.0479	-0.0268
105	• 0.85	0.87 •	-0.2451	0.0560	-0.0289
106	<b>•</b> 1.06	1.09 +	-0.2990	0.0644	-0.0306
107	• 1.34	1.36 •	-0.3623	0.0730	-0.0317
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109	<b>•</b> 2.04	2.11 •	-0.5175	0.0848	-0.0304
110	<b>•</b> 2.52	2.60 +	-0.6065	0.0865	-0.0279

In our example with the QQQ May 27th \$105/\$104 Bull Put Spread, we have two positions to think about.

First, we are short the \$105 put with a delta of -0.2451. But remember we sold this put so the delta changes to +0.2451. Second, we bought the \$104 put with a delta -0.1988. This gives us a net delta position of +0.0463 (0.2451-0.1988).

This means that the value of the QQQ May 27th \$105/\$104 Bull Put spread will go up by \$0.0463 per share or \$4.63 total for every \$1 rise in QQQ and vice versa.

We can also consider delta as being long or owning 4.63 shares of QQQ. Think about it...if QQQ rose by \$1 and we owned 4.63 shares we would make a profit of \$4.63. The exact same as the QQQ May 27th \$105/\$104 bull put spread

A couple of things to know about delta:

- 1. Positive delta is a bullish bias
- 2. Negative delta is a bearish bias



3. You should always consider the overall delta position in your portfolio – we like to be option sellers and keep our overall portfolio delta as neutral as possible. In this way we do not get too upset in moves in the market up or down. As a general rule of thumb we like to keep our deltas below plus or minus 1% of the value of our portfolio.

**CLICK HERE** to watch a video showing the impact of Delta on the Bull Put Spread.

### 1.18. Picking the Strikes

Some bull put spreads can be considered more bullish than others. The degree of bullishness depends primarily on the strike price of the short put, which determines how high the underlying stock (or index) needs to increase for maximum profit to be realized at expiration.

- Most bullish: a spread sold when both puts are in-the-money. The payoff is higher here but the probability of profit will be lower because the break- even price will be higher.
- **Moderately bullish:** a spread bought when the underlying stock (or index) is between the two strike prices.
- **Least bullish:** a spread bought when both puts are already out-of-the- money (primarily to take advantage of time decay). This offers the highest probability of profit but lower premium income. We prefer this option and like to have our probability over 80%.

#### 1.19. Assignment Risk

Assignment on any Equity option or American-style index option can, by contract terms, occur at any time before expiration, although this generally occurs when the option is in-the-money.

#### 1.20. Equity Options

For an equity put option, early assignment generally occurs when the short put is deep in-the money, expiration is relatively near, and its premium has little or no time value. If a bull put spread holder is assigned early on the short put, then he might exercise his long put, if it is in the- money, and sell shares purchased via the assignment obligation. In this case, maximum loss on the bull put spread would be realized.



Note: An investor with a bull put spread is short a higher-strike put and long a lower-strike put. It is therefore entirely possible that if the short-put is in-the-money and early assignment is received, the long put would be out-of-the-money. In this case, it may not make financial sense to exercise the long put early to sell shares purchased via the assignment obligation. So, the investor has choices:

- Sell the shares in the marketplace at a realized loss, and retain the long outof-the money put
- Hold a long position in underlying shares as a result of assignment and retain the long put

An investor contemplating the use of a bull put spread should consider the consequences of early assignment, and in advance discuss with his broker a course of action to take if assigned.

# 1.21. American-Style Index Options

If early assignment is received on a short in-the-money put of a bull put spread, the cash settlement procedure for index options will create a debit in the investor's brokerage account equal to the cash settlement amount. This cash amount is determined at the end of the day the long put is exercised by its owner.

After receiving assignment notification, usually the next business day, if his long put is also in the-money the investor may exercise that contract. The cash settlement amount credited to his account will be determined at the end of that day. There is a full day's market risk if the long option is not sold during the trading day assignment is received. If the long put is not in-the money, after the cash settlement amount is debited from his account via assignment the investor would remain long an out-of-the-money index put.

## 1.22. Powerpoint Video

**CLICK HERE** to view

## 1.23. Bull Put Spread: Actions to take at expiry

The action you take at expiry will depend on where the share price is trading at:



- If the share price is above the short-put strike price: Both
  put options are out-the-money and worthless. The position will disappear on the
  next trading day. Simply enjoy the profits.
- If the share price is below the long-put strike price: Both puts will be
  in-the-money and you will have made the max loss. There is nothing for you to
  do here as your broker will automatically buy and sell the shares for you,
  commission free. The next trading day, the position will disappear from your
  account.
- The share price is between both strikes: The short put option is in-the- money and has value. But the long-put option doesn't and will expire worthless. You may be in a partial profit or loss depending on where the share price is trading. You have several choices available to you that will depend on your outlook for the stock:
  - Close the entire trade for a partial loss or profit.
  - Rollout the entire bull put spread for another month with the same strikes.
     This can usually be done for an extra credit.
  - Take assignment of the shares. If you do nothing you will be assigned the shares and they will appear in your account on the next trading day. From there you can sell the shares or implement a repair strategy.
  - Another option would be to simply roll out the short put part of the trade for another month. This would not be a suitable solution for a novice investor and depends on the margin requirement as the put is uncovered or 'naked'.



# 2. Placing and Managing a Bull Put Spread

# 2.1. How to place a Bull Put Spread

**CLICK HERE** to view.

#### 2.2. How to manage a Bull Put Spread

**CLICK HERE.** 

### 2.3. Rolling out a Bull Put Spread

**CLICK HERE** 

#### 2.4. Closing down the trade

**CLICK HERE** 

# 2.5. Test Your Knowledge 1

**CLICK HERE** to take the quiz

## 2.6. Test your knowledge 2

At this stage it is best if you start practicing for real so this is what we want you to do:

- 1. Pick any option able stock that you have a mildly bullish outlook
- 2. Place a Bull Put Spread
- 3. Do a profit & Loss table
- 4. Place the trade in a 'Simulated' or 'Demo' account with an online broker
- **5.** Identify your breakeven
- **6.** Identify your Max Loss
- 7. Identify your Max Profit
- **8.** Share your insights on our daily members web meetings

#### 2.7. Please leave a Review on Google

**CLICK HERE** to leave a review of this course on Google. We would love to get your feedback. Thank you.



# 3. Mentoring Service

Embark on a streamlined journey to financial proficiency with our Stock and Options Mentoring Service. Elevate your learning curve by enlisting a **personal** mentor who will guide you through the intricacies of stock and options trading. Our comprehensive program offers:

- Weekly one-on-one mentoring sessions, ensuring personalized attention and targeted skill development.
- Gain a competitive edge with daily live market updates
- Exclusive access to curated stock watchlists
- Insights into our meticulously crafted options and futures trades.
- Save valuable time, effort, and money as you fast-track your education with our dedicated support system.

With daily assistance and a wealth of resources at your fingertips, you'll not only navigate the markets more confidently but also accelerate your journey toward financial success.

Join us in unlocking the full potential of your trading endeavors.

**CLICK HERE** to book a FREE Mentoring session to find out more.