

Option Strategies for Spot Traders

Introduction

Options are complex financial instruments with powerful trading capabilities that offer the opportunity to profit or manage risk in virtually any market condition. A trader can define virtually any risk/reward profile using some combination of long and short puts and calls—of which the possible permutations many.

Any trader is benefited immensely by a mastery of the use of options and we strongly encourage trader to invest the time and energy necessary to have a solid understanding of option fundamentals. Yet even traders who are new to options can still use them for very simple, yet effective strategies in conjunction with spot trading.

Four such option strategies are outlined below.

- Using **Long Options as Protection** shows how the purchase of a put option can temporarily protect a long spot position.
- In **Using Short Options as Limit Orders**, the sale of naked put is used as a vehicle to get long spot at a pre-determined price while earning time-decay.
- A short put is utilized again in **Using Short Option as Stop Orders**, this time to earn a fixed amount in exchange for limiting the potential of a short spot position.
- Lastly, **Using Options to "Collar" a Spot Trade** describes a two-option strategy that results in a limited loss for a spot trade in exchange for also limiting its profit.

Options are powerful trading vehicles when bought or sold individually. Various option strategies can be used to create many different risk/reward profiles, but these instruments can also be integrated into a spot traders toolbox as an adjunct to enhance and protect spot trades.

Using Long Options as Protection

Traders who are new to options can use this simple, yet effective strategy to provide short term protection for spot positions. Consider the following six-month (180-day) spot price chart for a cross rate:



We can see that the spot price fell to around 0.99 about 160 days ago, rallied to slightly more than 1.08 at 120 days, and then retreated to the same 0.99 level about 50 days ago. Let's assume that we bought the spot market at 1.00 after it bounced off of that support level of 0.99. Since then we saw profits up to 1.05, but then gave much of that back as the market retreated to 1.01.

Let's also assume that there is currently affecting this market some other source of uncertainty. It might be a geopolitical problem, a potential natural disaster, an election, or something similar. Long-term we may still be bullish XYZ (bearish the USD), but short-term we may have some concerns for a price drop.

A reasonable strategy here might be to put in a GTC ("good 'til cancelled") stop-loss order at either 1.00 (our breakeven) or at some level slightly below 0.99 (violated support). That would certainly limit our losses, but it would also take us out of the market entirely.

Alternatively, we can buy a put option with a strike price of 1.00 or 0.99 (or another price that we might choose). This will give us the right to sell our spot position at the strike price on the expiration date of the option. The following table lists the value of 1.00 put options for various expirations and spot prices (based on a 10% volatility and a current spot price of 1.01):

Spot	30 days	25 days	20 days	15 days	10 days	5 days	0 days
1.01	0.0072	0.0062	0.0052	0.0041	0.0028	0.0013	0.0013
1.00	0.0114	0.0104	0.0093	0.0081	0.0066	0.0047	0.0000
0.99	0.071	0.0161	0.0151	0.0140	0.0127	0.0113	0.0100

For example, if we bought a 30-day 1.00 put, it would cost us .0072 * 100,000 = \$720. If, after 5 days (when it would be a 25-day option), the spot price fell to 1.00, that option would increase in value to 1.04 (\$1,040). We would have seen a \$1,000 loss in our spot position, but it would have been offset by a \$320 (\$1,040 - \$720) gain in our option position, resulting in a net loss of only \$640. As the market falls further, the option will become in-the-money, and it will provide more protection as its delta increases.

Because of put-call parity, a long spot position with a long put will gain and lose money in the short term at the same rate as a long call would with the same strike price and expiration.

It is important to note that for this strategy to be effective, we should not be too concerned about the consequences of the option on expiration day. That is because we are purchasing this put option for short-term protection and we should be out of this trade within 10 days or so. If a longer time frame is needed, then a longer-termed option is needed. Options with longer expirations will cost more in cash, but will also experience less time decay each day.

Using Short Options as Limit Orders

Traders who are new to options can use this simple, yet effective strategy to provide short term protection for spot positions. buy and sell limit orders to initiate spot positions. Consider the following six-month (180-day) spot price chart for the cross rate:



We can see that the spot price fell to around 0.99 about 160 days ago, rallied to slightly more than 1.08 at 120 days, and then retreated to the same 0.99 level about 50 days

ago. Since then we have seen another rally to about 1.05 and then another reversal lower.

A reasonable trade here might be to respect the 0.99 level as support and buy the spot if the price again falls all the way to that level. This can easily be done with a GTC ("good 'til cancelled") limit order to buy spot at 0.99.

Alternatively, you can sell a put option with a strike price of 0.99. This will obligate you to purchase spot at 0.99 if the spot price is at or below 0.99 on the expiration date of the option. The following table lists the value of 0.99 put options for various expirations (based on a 10% volatility and a current spot price of 1.01):

Put	180	150	120	90	60	30	0
	days						
0.99 Put	0.0190	0.0167	0.0142	0.0114	0.0081	0.0041	0.0000

For example, if you sold a 2-month (60-day) 0.99 put option on 100,000 units of XYZ, you would collect 0.0081 * 100,000 = \$810. That \$810 is yours to keep no matter what happens to the price of XYZ/USD. If the spot price is at 0.99 or below on the expiration date of the option (60 days from now), you will be obligated to buy 100,000 units of XYZ at \$0.99. If, on the other hand, the spot price rallies or fails to fall to 0.99, you will have earned \$810 and will not have a spot position.

Let's look at three possible market scenarios and see how the short put trade compares to the limit order trade over the next 60 days:

1) Spot price rallies.

We are looking for the spot price to fall in order to give us an opportunity to buy XYZ/USD, so this is the least likely scenario (in our opinion). If, however, the spot price rallies and we have on a limit order to buy, we will have no position and will not have participated in the market move. The same is true if we choose to sell a put, but at least we have collected the \$810.

2) Spot price falls, but stays above the option's strike price of 0.99.

The payoff is the same as for the scenario above, but the daily margining and account value will be different. This is because the short option will retain its value and perhaps even increase in value over its 60-day life. At expiration, however, the trade will result in a credit of \$810 and no spot position.

3) Spot price falls below 0.99.

As noted above, if the spot price is below the option's strike price of 0.99 on its expiration day, then it will be exercised into a long spot position. It is important to note that the purchase price for that spot position will be 0.99 no matter how far the spot

price falls. For example, if the spot price is 0.98 on the option's expiration day, your account will show a long spot position from 0.99, resulting in a 0.01 loss (\$1000). Remember, however, that this trade also resulted in a cash credit of \$810 so the overall loss at a spot price of 0.98 would only be \$1000 - 810 = \$190. Since the option was sold at a price of 0.0081, the breakeven spot price for this trade is 0.99 - 0.0081 = .9819.

Selling a put option to initiate a long spot position (or selling a call to initiate a short spot position) also results in a margin on your trading account. This margin can vary based on market conditions, but usually is about the same amount as a spot position margin. This trade will result in a cash credit for the sale of the option and a long position if the spot price falls to or below the strike price of the short option. For this reason, using short options to initiate spot positions is sometimes referred to as "getting paid to have a limit order".

Using Short Options as Stop Orders

Although options are complex financial instruments, traders who are new to options can **use** them for very simple, yet effective strategies: buy and sell stop orders to liquidate spot positions. Consider the following six-month (180-day) spot price chart for the cross rate:



We can see that the spot price fell to around 0.99 about 160 days ago, rallied to slightly more than 1.08 at 120 days, and then retreated to the same 0.99 level about 50 days ago. Let's assume that you sold the spot market at about 1.04 right after it topped out at 1.05 about 20 days ago. At the current spot price of 1.01 you are showing a profit of 0.03.

A reasonable trade here might be to respect the 0.99 level as support and sell the spot if the price again falls all the way to that level. This can easily be done with a GTC ("good 'til cancelled") order to buy spot and liquidate your short at 0.99.

Alternatively, you can sell a put option with a strike price of 0.99. This will obligate you to purchase spot at 0.99 if the spot price is at or below 0.99 on the expiration date of the option. The following table lists the value of 0.99 put options for various expirations (based on a 10% volatility and a current spot price of 1.01):

Put	180	150	120	90	60	30	0
	days	days	days	days`	days	days	days
0.99 Put	0.0190	0.0167	0.0142	0.0114	0.0081	0.0041	0.0000

For example, if you sold a 2-month (60-day) 0.99 put option on 100,000 units of XYZ, you would collect 0.0081 * 100,000 = \$810. That \$810 is yours to keep no matter what happens to the price of XYZ/USD. If the spot price is at 0.99 or below on the expiration date of the option (60 days from now), you will be obligated to buy 100,000 units of XYZ at \$0.99. If, on the other hand, the spot price rallies or fails to fall to 0.99, you will have earned \$810 and will still have your short spot position.

Let's look at three possible market scenarios and see how the short put trade compares to the stop order trade over the next 60 days:

- 1) **Spot price rallies.** Since you are short, you are looking for the spot price to fall, so a rally is the least likely scenario (in your opinion). If, however, the spot price does rally and you have on a stop order to buy at 0.99, you will continue to have the short position and will have to manage that risk. The same is true if you choose to sell a put, but at least you will have collected the \$810.
- Spot price falls: If the spot price falls, but stays above the option's strike price of 0.99, your short position will continue to profit as the spot price falls toward 0.99. In addition, however, you have collected the \$810.
- 3) Spot price falls below 0.99: As noted above, if the spot price is below the option's strike price of 0.99 on its expiration day, then it will be assigned into a long spot position that will offset your initial short. It is important to note that the liquidation price will be 0.99 no matter how far the spot price falls. For example, if the spot price is 0.98 on the option's expiration day, your account will show a 0.05 profit (\$5000) on the initial spot trade and an additional \$810 for the cash collected on the sold put.

These types of trades are often called "covered writes". Selling a put option to liquidate a short spot position (or selling a call option to liquidate a long spot position) also results in a small decrease in the margin on your trading account compared to the spot trade alone. In addition, there is an increase in cash due to the option sale. For this

reason, using short options to liquidate spot positions is sometimes referred to as "getting paid to have a stop order".

Using Options to "Collar" a Spot Trade

Although options are complex financial instruments, traders who are new to options can use them for a very simple, yet effective strategy: the "collar" trade. Consider the following six-month (180-day) spot price chart for the cross rate



We can see that the spot price fell to around 0.99 about 160 days ago, rallied to slightly more than 1.08 at 120 days, and then retreated to the same 0.99 level about 50 days ago. Let's assume that you bought the spot market at 1.01 about 40 days ago after it bounced off of the 0.99 level of support. At the current spot price of 1.01 your trade is at breakeven.

At this point, you have seen your spot trade make and then lose 0.04 (\$4000). Although you may still be bullish XYZ/USD, the recent drop from 1.05 may have you a little concerned, and support at 0.99 is not far away. If that level is broken, the market may fall significantly further.

A reasonable trade here might be to respect the 0.99 level as support and sell the spot if the price falls through that level. This can easily be done with a GTC ("good 'til cancelled") order to sell spot and liquidate your long spot position at 0.99.

Alternatively, you can buy a put option with a strike price of 0.99. This will allow you to sell spot at 0.99 if the spot price is at or below 0.99 on the expiration date of the option.

The following table lists the value of 0.99 put options for various expirations (based on a 10% volatility and a current spot price of 1.01):

Put	180	150	120	90	60	30	0
	days						
0.99 Put	0.0190	0.0167	0.0142	0.0114	0.0081	0.0041	0.0000

For example, if you bought a 2-month (60-day) 0.99 put option on 100,000 units of XYZ, you would spend 0.0081 * 100,000 = \$810. That \$810 will be a cash debit to your account.

If the spot price is at or below 0.99 on the expiration date of the put option (60 days from now), you will be able to sell 100,000 units of XYZ at \$0.99. This will liquidate your spot position at a loss of 0.02. If, on the other hand, the spot price rallies or fails to fall all the way to 0.99, you will have spent \$810 and will still have your long spot position (and the risk associated with it). This trade is sometimes known as a "protective put" strategy.

As a result of the XYZ/USD rally to 1.05 and the subsequent retreat, you are now also faced with a resistance level at 1.05. At this point, you may want to mark this level as the profit potential for your long spot position.

Whether you buy the protective put or not, you can sell a call option with a 1.05 strike price, collect some premium, and effectively have a stop order to sell the spot market at 1.05. Having sold a call option, you will be obligated to sell the spot market at 1.05 if it is at that level or above on the expiration day of the option. This is sometimes known as a "covered call" strategy.

Call	180 days	150 days	120 days	90 days	60 days	30 days	0 days
1.02 Call	0.0236	0.0212	0.0185	0.0155	0.0119	0.0073	0.0000
1.03 Call	0.0196	0.0172	0.0146	0.0117	0.0084	0.0043	0.0000
1.04 Call	0.0161	0.0138	0.0114	0.0087	0.0057	0.0023	0.0000
1.05 Call	0.0131	0.0110	0.0087	0.0063	0.0038	0.0012	0.0000

The following table lists the value of several call options for various expirations (based on a 10% volatility and a current spot price of 1.01):

For example, if you sold a 2-month (60-day) 1.05 call option on 100,000 units of XYZ, you would collect 0.0038 * 100,000 = \$380. That \$380 will be a cash credit to your account.

A third alternative is to execute both the protective put and the covered call. This is referred to as a "collar" since the outcomes at both "ends" of the price distribution are known.

If the spot price falls below the protective put, the long spot position is stopped out at a loss; if the spot price rallies past the strike of the short call, the long spot position is stopped out at a profit. If the spot price stays in between the strikes of the two options, both options will expire worthless and you will be left with the original spot position.

You can choose the particular strikes and expirations to suit how you think the market may behave. For example, you can buy a put with a lower strike (more out-of-the-money). This would provide less protection to the downside, but also cost less in cash.

Similarly, you can sell a call with a strike that is more at-the-money. This will result in a larger cash credit to your account, but will also limit the upside potential to your spot position.

Often, the best combination is one where the two options are approximately the same price. The sale of the call offsets the purchase of the put and the cash flow is close to zero. This trade is sometimes called a "zero-cost option".

