

Webinar Presentation

Synthetic Option Positions: Why and How They Are Used



Presented by:
Trading Strategy Desk

Disclosures

- ✓ Options' trading entails significant risk and is not appropriate for all investors. Certain complex options strategies carry additional risk. Before trading options, please read [Characteristics and Risks of Standardized Options](#), and call 800-544- 5115 to be approved for options trading. Supporting documentation for any claims, if applicable, will be furnished upon request.
- ✓ Examples in this presentation do not include transaction costs (commissions, margin interest, fees) or tax implications, but they should be considered prior to entering into any transactions.
- ✓ There are additional costs associated with option strategies that call for multiple purchases and sales of options, such as spreads, straddles, and collars, as compared with a single option trade.
- ✓ The information in this presentation, including examples using actual securities and price data, is strictly for illustrative and educational purposes only and is not to be construed as an endorsement, recommendation.
- ✓ Profit probability shows how likely a particular option trade (or combination of trades) will be profitable, based on a calculation that takes into account the price of the trade and the expected distribution of stock prices based on the 90-day historical volatility.



Goals of Today's Session

- **Learn the basic synthetic option positions**
 - Synthetic Long Stock
 - Synthetic Short Stock
 - Synthetic Long Call
 - Synthetic Short Call
 - Synthetic Long Put
 - Synthetic Short Put

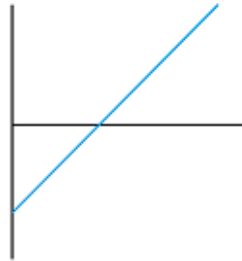
- **How an understanding of synthetic positions can help with making adjustments and managing risk**
 - Learn how to offset various types of risk
 - Learn how to change your risk profile utilizing your existing position



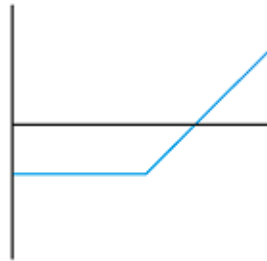
Profit/Loss of Synthetics Components

LONG

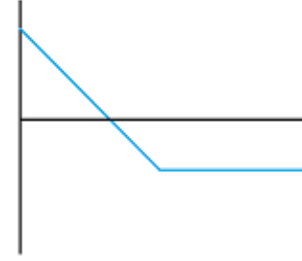
STOCK



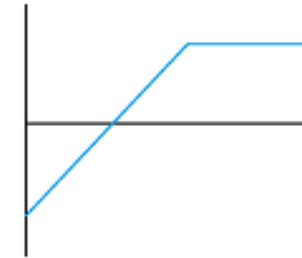
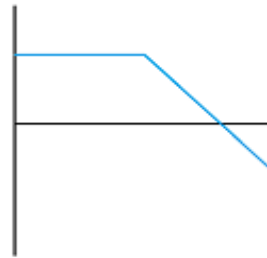
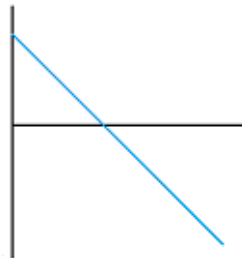
CALL



PUT



SHORT



Greeks of Synthetics Components

DELTA

GAMMA

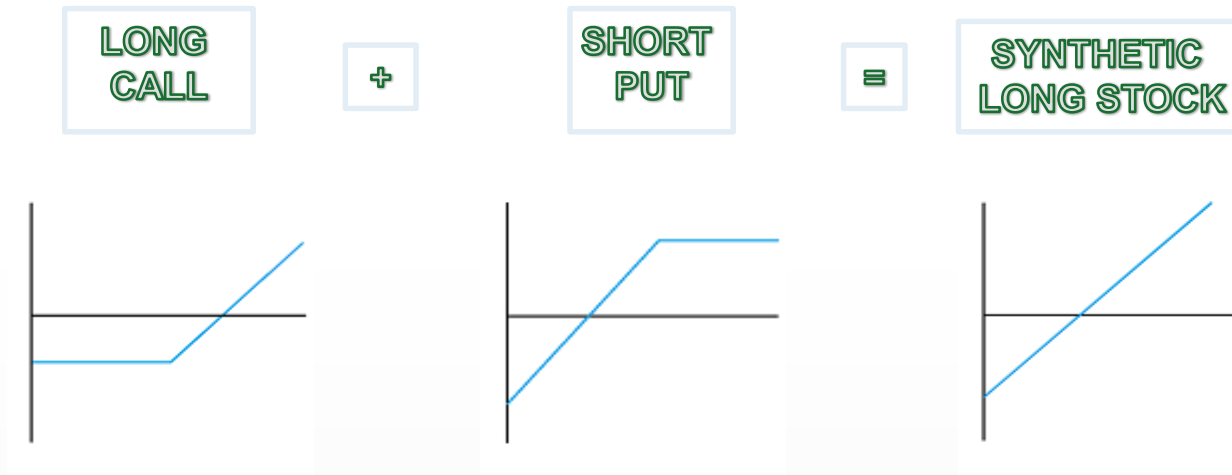
THETA

VEGA

Long stock	+	NA	NA	NA
Short stock	--	NA	NA	NA
Long call	+	+	--	+
Short call	--	--	+	--
Long put	--	+	--	+
Short put	+	--	+	--

- ✓ Greeks are mathematical calculations used to determine the effect of various factors on options.

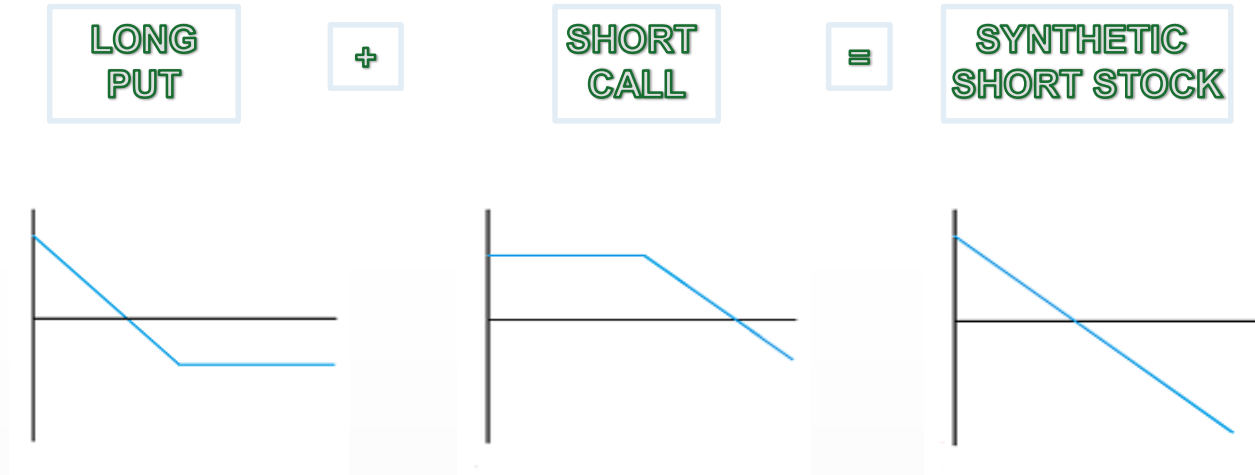
How do you create synthetic long stock?



Trader's note:

Synthetic long stock uses at-the-money strike calls and the same expiration at-the-money strike puts. However, different strikes may be used as well. You can read more about a bullish split-strike synthetic here: <https://www.fidelity.com/learning-center/investment-products/options/options-strategy-guide/bullish-split-strike-synthetic>

How do you create synthetic short stock?

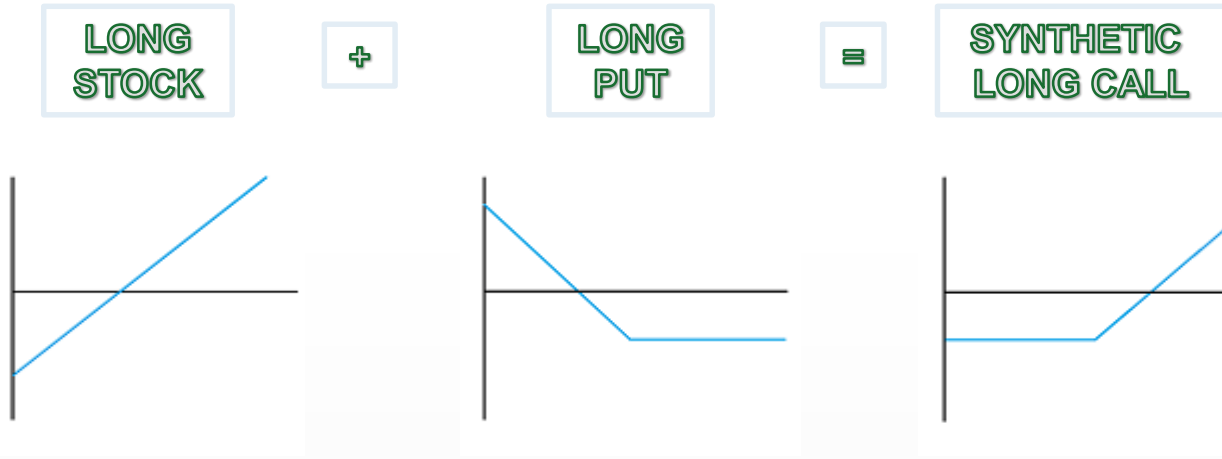


Trader's note:

Similar to synthetic long stock, synthetic short stock also uses at-the-money strike calls and the same expiration at-the-money strike puts. Once again, different strikes may be used. You can read more about a bearish split-strike synthetic here:

<https://www.fidelity.com/learning-center/investment-products/options/options-strategy-guide/bearish-split-strike-synthetic>

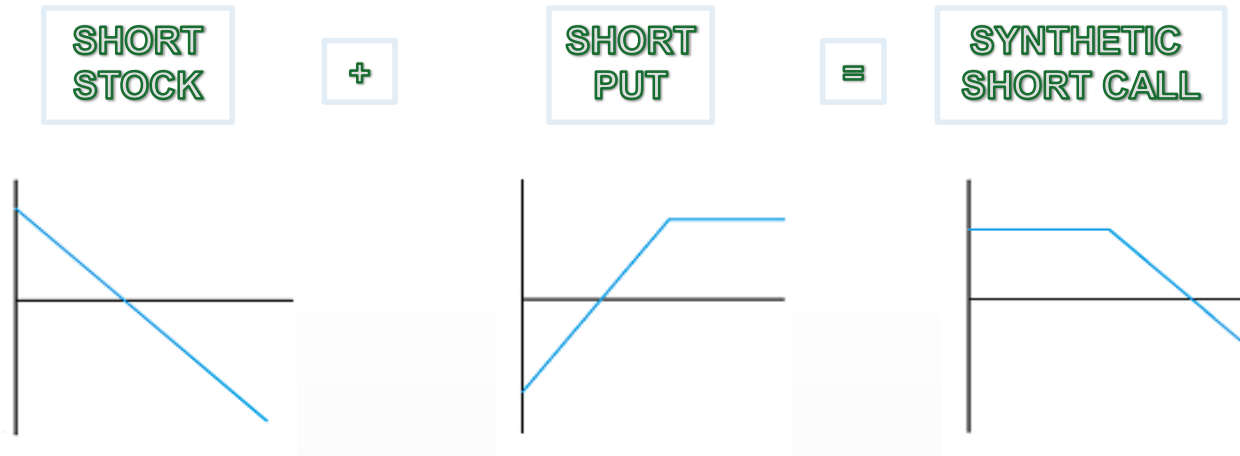
How do you create a synthetic long call?



Trader's note:

An investor or trader holding long stock can hedge against downside risk by buying a put, creating a protective put position. If you buy stock and buy a put on the same trading day, you have created a specific type of protective put called a married put (the difference is the tax treatment). If you're thinking of opening a married put position because you desire the unlimited upside of stock, but want limited downside risk, you can also consider buying a call, which shares the risk/reward profile.

How do you create a synthetic short call?



Trader's note:

You may be noticing a pattern. Each basic synthetic position is comprised of two components. If you already have one of the two, you can quickly alter your risk exposure by adding the other one. Understanding synthetic relationships can be a valuable tool when managing your stock or option position.

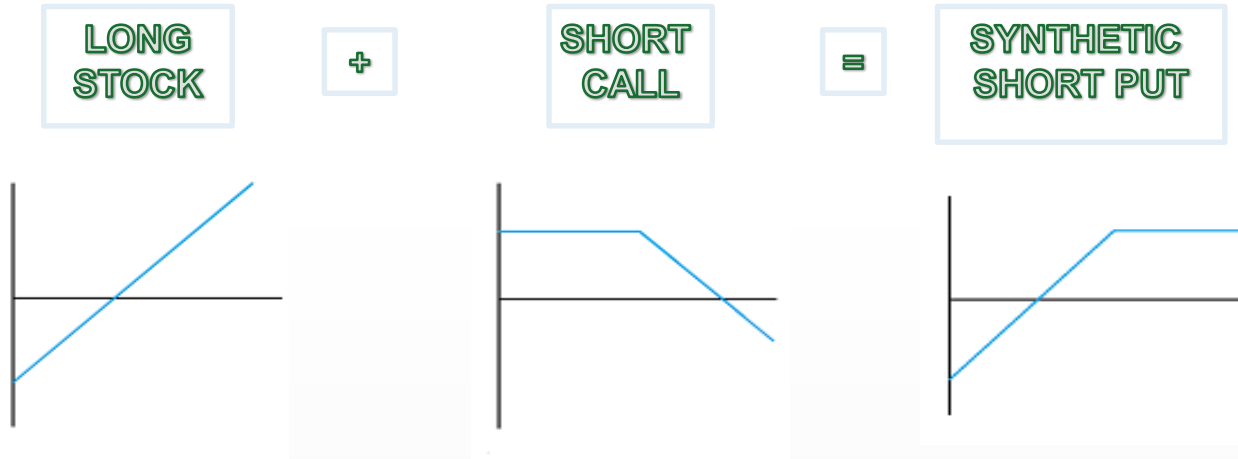
How do you create a synthetic long put?



Trader's note:

A bearish trader can hedge his short stock against a rally in the stock price by buying a call.
A bullish trader can flip his long call into a bearish trade by shorting stock.
In either case, they have created the risk/reward profile of a long put.

How do you create a synthetic short put?



Trader's note:

What option strategy involves writing calls against long stock? A covered call!
Many traders will write cash covered puts and if they get assigned the stock, begin to write calls against their shares.

Synthetic Relationships

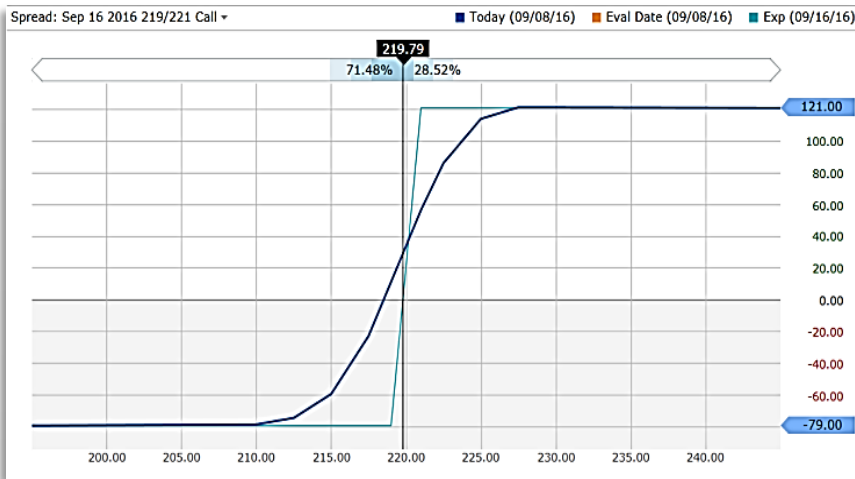
Original Position	=	Synthetic		Equivalent
Long Stock	=	Long Call	+	Short Put
Short Stock	=	Short Call	+	Long Put
Long Call	=	Long Stock	+	Long Put
Short Call	=	Short Stock	+	Short Put
Long Put	=	Short Stock	+	Long Call
Short Put	=	Long Stock	+	Short Call

Taking it to the next level - Comparisons

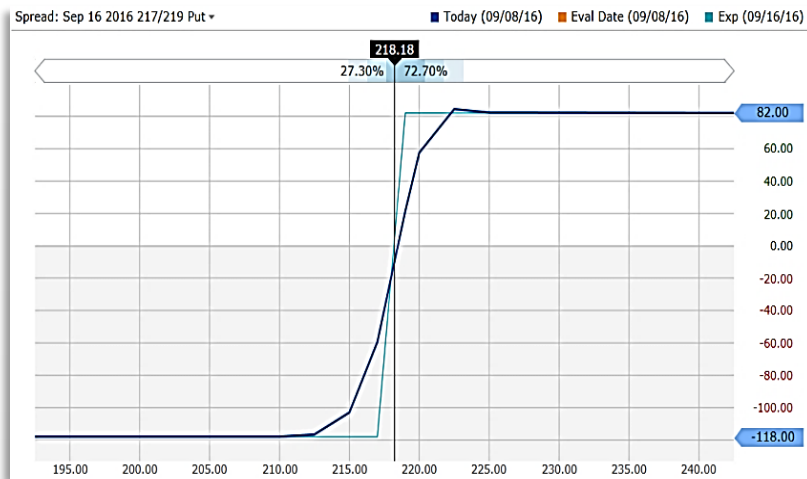


- **What's the difference between a bull call spread and a bull put spread?**
 - Bullish vertical spreads can be constructed with calls or puts
 - Buy lower strike, sell higher strike
 - Bull call spreads are debit spreads and Bull put spreads are credit spreads
 - Using the same strikes gives us the same P/L diagram

Bull Call Spread



Bull Put Spread

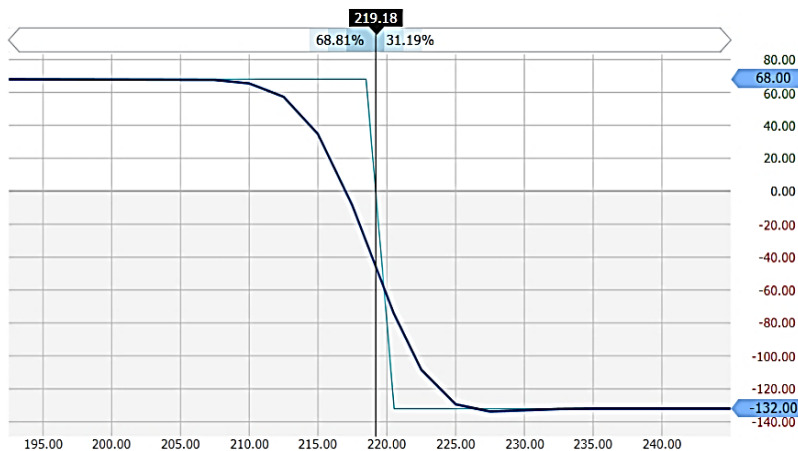


Taking it to the next level - Comparisons

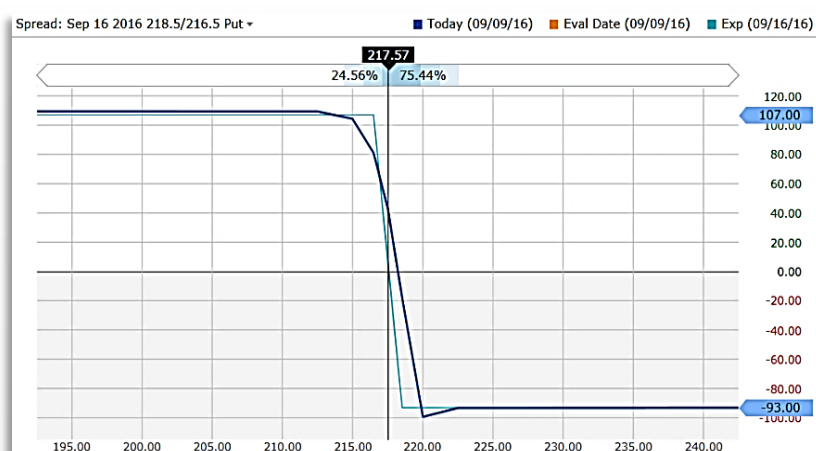


- **What's the difference between a bear call spread and a bear put spread?**
 - Bearish vertical spreads can be constructed with calls or puts
 - Buy higher strike, sell lower strike
 - Bear call spreads are credit spreads and bear put spreads are debit spreads
 - Using the same strikes gives us the same P/L diagram

Bear Call Spread



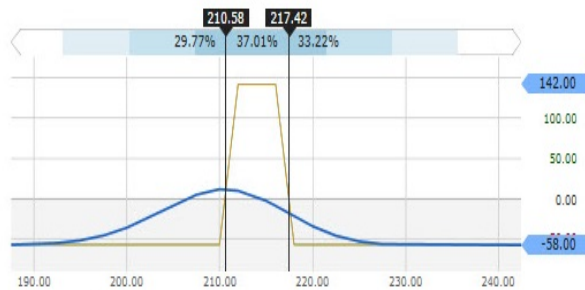
Bear Put Spread



Taking it to the next level - Comparisons

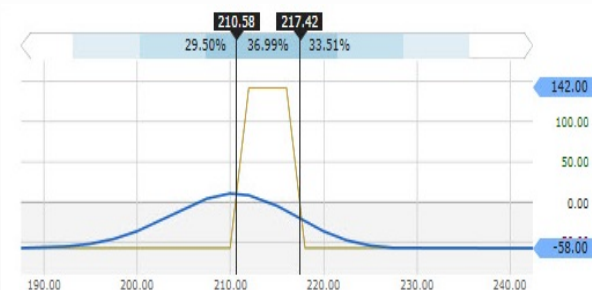
- What's the difference between a long call condor, a long put condor, and a short iron condor?
 - Long call condor is a bear call spread on top of a bull call spread
 - Short iron condor is a bear call spread on top of a bull put spread
 - Long put condor is a bear put spread on top of a bull put spread

Long Call Condor



Strategy	Qty	Bid	Ask	Eval Price
Condor: Oct 12 2016 210/212/216/218 Call	0.53	0.69	0.58	
Oct 12 2016 210 Call	1	5.99	6.05	6.01
Oct 12 2016 212 Call	-1	4.47	4.51	4.49
Oct 12 2016 216 Call	-1	1.89	1.93	1.94
Oct 12 2016 218 Call	1	0.98	1.00	1.00

Short Iron Condor



Strategy	Qty	Bid	Ask	Eval Price
Condor: Oct 12 2016 210/212/216/218	1.35	1.47	1.42	
Oct 12 2016 210 Put	1	1.49	1.52	1.49
Oct 12 2016 212 Put	-1	1.98	2.01	1.99
Oct 12 2016 216 Call	-1	1.89	1.93	1.92
Oct 12 2016 218 Call	1	0.98	1.00	1.00

Long Put Condor



Strategy	Qty	Bid	Ask	Eval Price
Condor: Oct 12 2016 210/212/216/218 Put	0.50	0.67	0.58	
Oct 12 2016 210 Put	1	1.49	1.52	1.49
Oct 12 2016 212 Put	-1	1.98	2.01	1.97
Oct 12 2016 216 Put	-1	3.41	3.45	3.41
Oct 12 2016 218 Put	1	4.47	4.54	4.47



*Active Trader Pro – for illustrative purposes only

Key Takeaways

- Synthetic positions can be used to change one position into another when your outlook changes or your expectations shift.
- Have a method of analysis for time, direction, and volatility.
- You can use the Profit and Loss calculator to simulate the synthetic position and evaluate the option Greeks.
- You can use the Fidelity Notebook tool to capture the details of your plan.

