11 Synthetic Long

Chapter 1 on option basics, chapter 2 on covered calls, chapter 6 on puts and chapter 7 on put selling should probably be read before you tackle this chapter.

Another type of combination using puts and calls are the so-called "synthetics". There are several synthetics, but the ones of most interest to option investors are the synthetic long and the synthetic short. These are equivalent to being either long or short stock, hence the name. Since the synthetic short requires the investor to hold a naked call, it is a particularly risky position and probably not available to most new option investors, so it won't be discussed here.

11.1 The Synthetic Long

When you buy a call and sell a put at the same strike price, you have set up an option position that is equivalent to owning shares of the stock. This is a strongly bullish position, superior to the long call position because the sale of the puts reduces the initial investment for the calls. It is inferior to the long call position because the short puts add substantial risk. The difficulty is the same as the difficulty with any long call position. Precision is required — you must pick the right stock, and it must rise enough before the position expires to make the position profitable.

Example

Shares of Walbaloo Inc. are selling for $30. March $30 calls are selling for 5-points, and the March $30 puts are selling for 4-points. Selling the put and buying the call will cost 1-point: 5 - 4 = 1.

Here is a table comparing the outcome for the synthetic long and the actual purchase of 100 shares of Walbaloo:

Stock Price	$30 Call	$30 Put	Options Total	Stock Purchase Total
20	($500)	($600)	($1,100)	($1,000)
25	(500)	(100)	(600)	(500)
30	(500)	400	(100)	0
35	0	400	400	500
40	500	400	900	1,000

As you can see, the synthetic long tracks the actual long stock position very accurately, with only a $100 difference which represents the amount spent to set up the position.

The reason for preferring the synthetic long over the actual long position is the additional leverage obtained. When the puts are secured with cash, which is the norm for beginners with options, the leverage is less than it would seem. $3,000 will be unavailable for other investments during the life of the puts, so the total net cash investment for the synthetic long is actually $3,100. By comparison, using margin, the requirement is only $1,500, and that is collateral, not cash.

Of course, if the strategy works out, as the stock increases in price the cost of the put will drop significantly, which means that the put could be repurchased early for a very small payment, perhaps as little as $0.10 or $0.20. And the cash is secured, not spent — the only actual expenditure is the $100 debit.

11.1.1 Splitting the Strikes

An even more bullish variation on the synthetic long is known as "splitting the strikes". A lower strike price is used for the put and a higher strike price is used for the call. This can reduce the initial expense, and sometimes even produce a credit. Usually out-of-the-money options are used.

Example

Shares of Walbaloo Inc. are selling for $33. An April $30 put is selling for 2-points and an April $40 call is selling for 1-point. You can sell the put and purchase the call for a net profit of $1, less commissions. If the stock closes between $30 and $40, the options expire worthless but you make a small profit from the sale of the put.

If Walbaloo goes above $40, your profits are unlimited. On the other hand, since you sold an out-of-the-money put, should the shares drop below $30, you are facing substantial losses. Here's a table:

Stock Price	$30 Put	$40 Call	Total
20	($800)	($100)	($900)
25	(300)	(100)	(400)
30	200	(100)	100
35	200	(100)	100
40	200	(100)	100
45	200	400	600
50	200	900	1,100

Investors who find calls too expensive are often tempted by this strategy. Considering the downside risk, the price of the call should not be your only criterion for opening a synthetic long.

A Common and Dangerous Error

Sometimes the investor who is trying to defray the cost of purchasing the calls in a synthetic long will sell an in-the-money put with a *higher* strike price than the call. This will pay enough so that it may completely offset the purchase of the call.

The problem with this strategy is that there is an area of *double leverage*. When the stock is between the strikes, *both the call and the put are in the money, and so you face a double risk of assignment*. Since the put is in the money, it may be exercised against you. And should the call expire in the money, you may be automatically assigned on expiration day. If you try this variation, monitor it carefully prior to expiration. If it looks like both options will finish in the money, buy back the put, and notify your broker that you do not want the call exercised.

11.2 Up to the Minute Summary

- A synthetic long is a long call and a short put on the same underlying. Commonly, both have the same expiration date and strike price.
- Synthetic longs are highly leveraged positions. The short put helps defray the cost of the long call, and reduces the initial investment.
- Compared to owning stock or a long call, there is a greater degree of risk with the synthetic long.
- A common variation is known as "splitting the strikes", where a put with a different strike price is sold. This is done to acquire a bigger premium from the put.
- Avoid selling a put with a higher strike price than the call, which creates an area of "double leverage" between the two strikes.

11.3 Chapter Glossary

Splitting the Strikes Using different strike prices for the calls and puts in a combination. This term is usually used when it is more common to use the same strike for a particular combination.

Synthetic Long Leverage on steroids. A combination of a long call and a short put on the same underlying. Usually the same strike price and expiration date are used for both the call and the put.