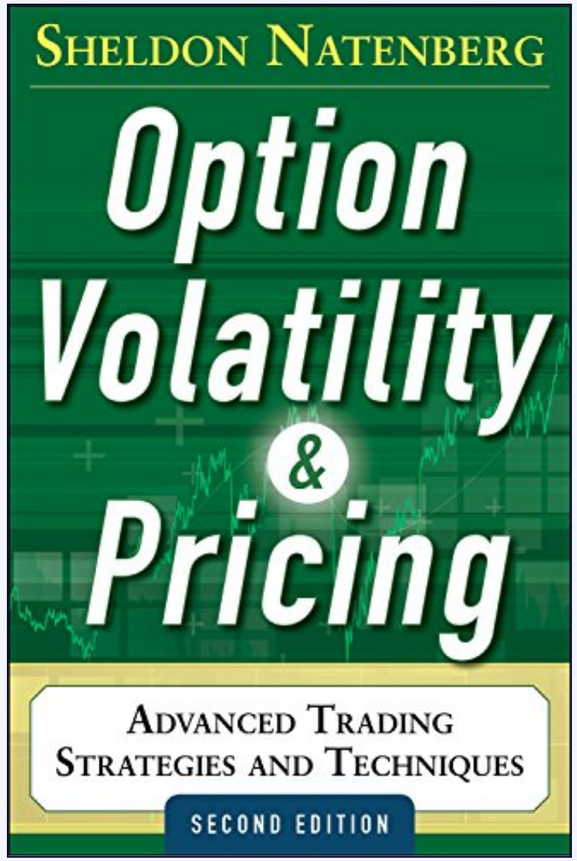
VolSignals

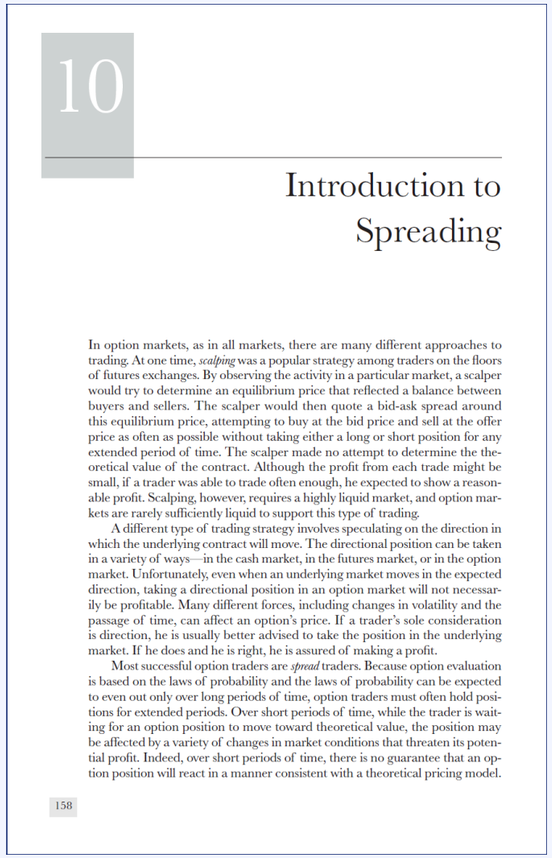
VolStudies

Chapter 10 Introduction to Spreading

VolStudies | Option Volatility & Pricing

Chapter 10 — Introduction to Spreading





10

Introduction to Spreading

In option markets, as in all markets, there are many different approaches to trading. At one time, *scalping* was a popular strategy among traders on the floors of futures exchanges. By observing the activity in a particular market, a scalper would try to determine an equilibrium price that reflected a balance between buyers and sellers. The scalper would then quote a bid-ask spread around this equilibrium price, attempting to buy at the bid price and sell at the offer price as often as possible without taking either a long or short position for any extended period of time. The scalper made no attempt to determine the theoretical value of the contract. Although the profit from each trade might be small, if a trader was able to trade often enough, he expected to show a reasonable profit. Scalping, however, requires a highly liquid market, and option markets are rarely sufficiently liquid to support this type of trading.

A different type of trading strategy involves speculating on the direction in which the underlying contract will move. The directional position can be taken in a variety of ways—in the cash market, in the futures market, or in the option market. Unfortunately, even when an underlying market moves in the expected direction, taking a directional position in an option market will not necessarily be profitable. Many different forces, including changes in volatility and the passage of time, can affect an option's price. If a trader's sole consideration is direction, he is usually better advised to take the position in the underlying market. If he does and he is right, he is assured of making a profit.

Most successful option traders are *spread* traders. Because option evaluation is based on the laws of probability and the laws of probability can be expected to even out only over long periods of time, option traders must often hold positions for extended periods. Over short periods of time, while the trader is waiting for an option position to move toward theoretical value, the position may be affected by a variety of changes in market conditions that threaten its potential profit. Indeed, over short periods of time, there is no guarantee that an option position will react in a manner consistent with a theoretical pricing model.

158

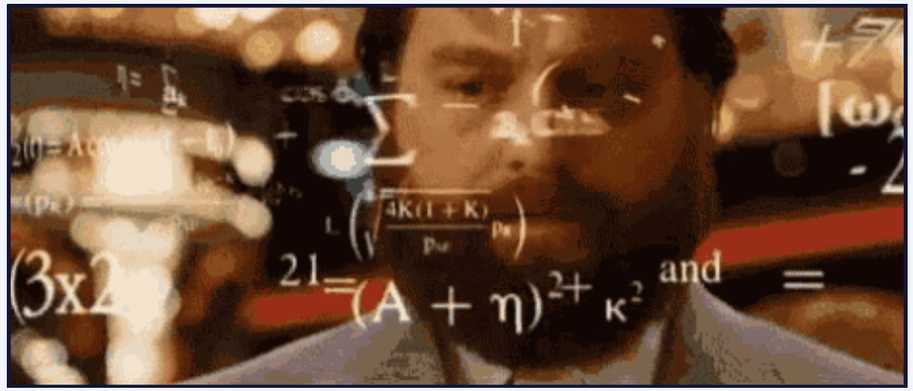
Chapter 10 — Introduction to Spreading

- What is a Spread?
- Option Spreads

What is a Spread?

- *A **spread** is a strategy that involves taking opposing positions in different but related instruments.*
- *Most commonly, a spread will consist of positions that move in the opposite direction with respect to changes in market conditions.*
- *Profitable spreading strategy based on assumption that position values will change at different rates.*

We're going to focus on **Option Spreads**



Option spreads are not limited to Delta

- ***Volatility***
  - *Vega (Implied)*
  - *Gamma (Realized)*
- ***Moments on the Distribution***
  - *Skew*
  - *Kurtosis*
- ***Conditionals***
  - *Speed*
  - *Vanna*
  - *Volga*

...the possibilities are endless.

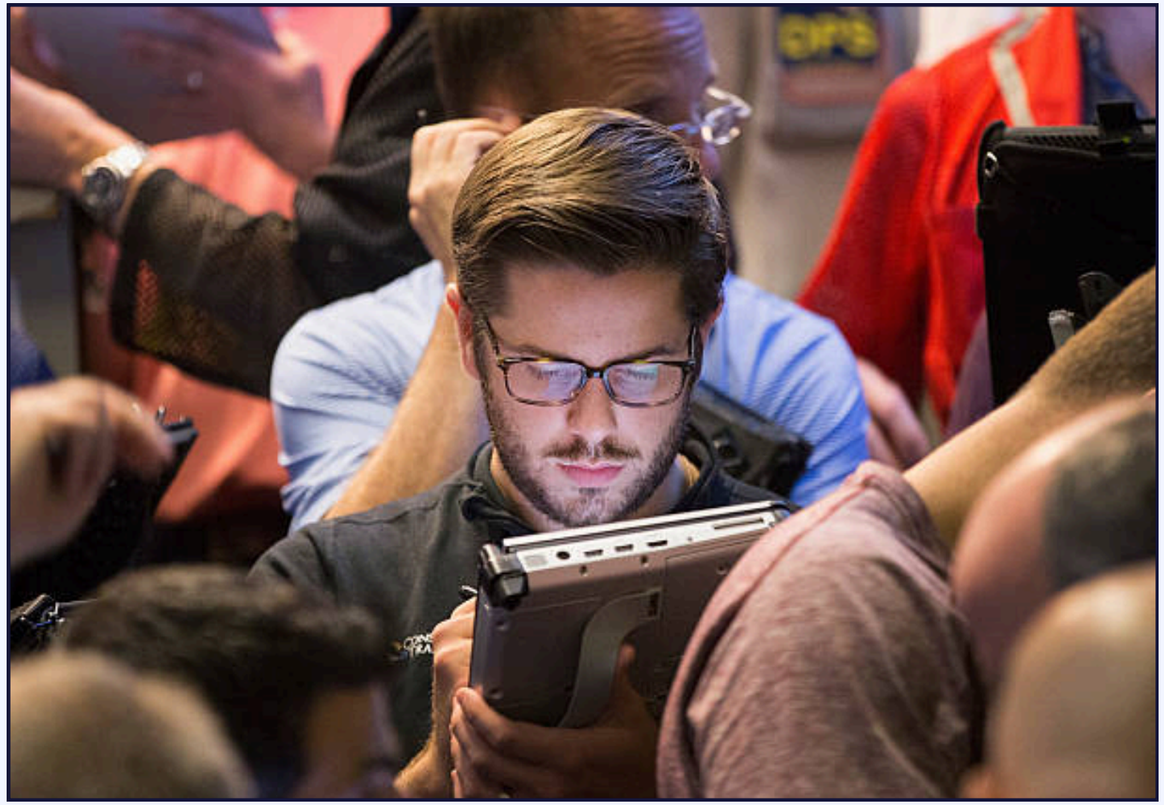
Spreads can be <u>dynamic</u> or <u>static</u>

- *Dynamic: periodically adjusted or re-hedged*
  - *In market making, everything is hedged dynamically*

- *Static: "set and forget"*
  - *Customer & institutional spreads are **usually** static:*
    - *JPM Quarterly Collar*
    - *Global X-ETF BuyWrite (XYLD)*
    - *45DTE Put Spread Seller*
    - *"Captain Condor" 1DTE IC Seller*
  - *Or adjusted infrequently to roll or defend:*
    - *"Go Around"*
    - *20-pt Put Spread Seller*

Chapter 10 — Introduction to Spreading

Why spread?



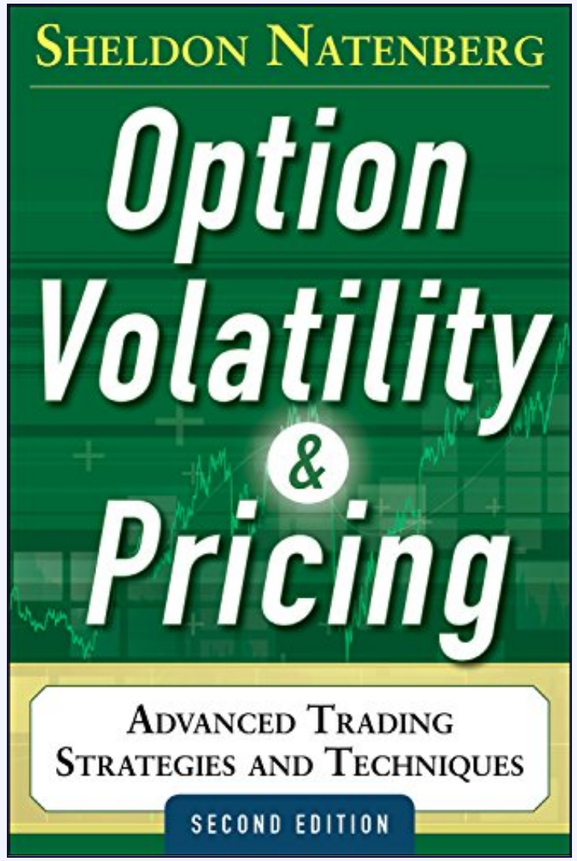
Why spread?

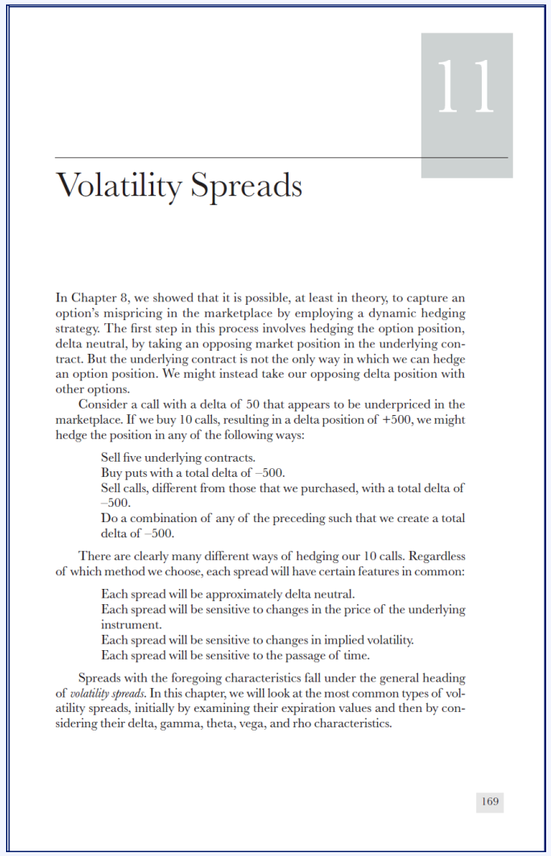
- *Mispriced options**
  - ** = “perceived” (you and I are unlikely to find pure arbitrage. Sorry!)*
  - *In the options world, you’re more likely to express mispricing in volatility (bps) than price ($)*
- *Better reflect market view*
  - *Beyond directional*
  - *Calendar spreads allow you to bet on timing of volatility*
  - *Vertical spreads allow you to bet more effectively on ranges & levels*
  - *Rule of Thumb: When structuring option trades, your long options should be those you expect to go *through* and your short options should be those you expect to go *to**
- *Control risk!*
  - *Your account will live longer if you sell spreads vs single leg options or strangles*

Nothing is perfect… but spreading is critical to mastering options trading for the long term 🎯

VolStudies | Option Volatility & Pricing

Next up...





11

Volatility Spreads

In Chapter 8, we showed that it is possible, at least in theory, to capture an option's mispricing in the marketplace by employing a dynamic hedging strategy. The first step in this process involves hedging the option position, delta neutral, by taking an opposing market position in the underlying contract. But the underlying contract is not the only way in which we can hedge an option position. We might instead take our opposing delta position with other options.

Consider a call with a delta of 50 that appears to be underpriced in the marketplace. If we buy 10 calls, resulting in a delta position of +500, we might hedge the position in any of the following ways:

Sell five underlying contracts.
Buy puts with a total delta of –500.
Sell calls, different from those that we purchased, with a total delta of –500.
Do a combination of any of the preceding such that we create a total delta of –500.

There are clearly many different ways of hedging our 10 calls. Regardless of which method we choose, each spread will have certain features in common:

Each spread will be approximately delta neutral.
Each spread will be sensitive to changes in the price of the underlying instrument.
Each spread will be sensitive to changes in implied volatility.
Each spread will be sensitive to the passage of time.

Spreads with the foregoing characteristics fall under the general heading of *volatility spreads*. In this chapter, we will look at the most common types of volatility spreads, initially by examining their expiration values and then by considering their delta, gamma, theta, vega, and rho characteristics.

169

Chapter 11 — Volatility Spreads

VolSignals

VolStudies