Credit Spreads –
And How to Use Them

Marty Kearney
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Spreads

▪ What is an Option Spread?
▪ An Example of a Vertical Debit Spread
▪ Examples of Vertical Credit Spreads
▪ How to choose strike prices when employing the Vertical Credit Spread strategy
▪ Note: Any mention of Credit Spread today is using a Vertical Credit Spread.
A Spread

A Spread is a combination trade, buying and/or selling two or more financial products.

It could be stock and stock (long Coca Cola – short shares of Pepsi), Stock and Option (long Qualcomm, short a March QCOM call - many investors have used the “Covered Call”), maybe long an IBM call and Put.

We will concentrate on short the **Vertical Credit Spread**.
A Vertical Spread

• Buy one option, sell another.
• Same underlying
• Same expiration month
• Same type (both call or both put)
• Can do either Credit spreads or Debit spreads
• Other than outright call or put purchase or covered write, the Vertical Spread could be the most used strategy by investors.
A Debit Spread

A Debit Spread means paying to initiate the spread trade.

An example of a call vertical debit spread:

- XYZ at $50, the investor has no stock position, is bullish, thinks XYZ could rise to $55, but will not risk $5,000 by buying 100 shares.

- Rather than buying the 50 strike call at $4, she buys the 50 call at $4 and sells the 55 strike call at $2.25.
**50 – 55 Call Debit Spread**

Comparison:

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Risk</th>
<th>Potential Gain at $55</th>
<th>Break Even</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buy XYZ $50</td>
<td>$5,000</td>
<td>$500</td>
<td>$50</td>
</tr>
<tr>
<td>Buy 50 Call</td>
<td>$400</td>
<td>$100</td>
<td>$54</td>
</tr>
<tr>
<td>50-55 Call</td>
<td>$175</td>
<td>$325</td>
<td>$51.75</td>
</tr>
<tr>
<td>Debit Spread</td>
<td>$175</td>
<td><strong>$325</strong></td>
<td><strong>$51.75</strong></td>
</tr>
</tbody>
</table>

*Transaction costs not included*
Debit Spreads

Debit Spreads cost money to initiate

The option strike price purchased is closer to the price of the underlying stock than that sold

Typically need stock movement:
• Higher if using a Bullish-Call Debit Spread
• Lower if initiating a Bearish-Put Debit Spread

Movement usually needed to break-even or profit
Credit Spreads

Investors using options can be bullish, bearish or neutral when initiating option strategies.

Sellers of options receive a “premium”, or cash

Some investors and traders like the idea of selling options (and getting paid for it)

Selling options outright leaves the seller with Considerable or Unlimited Risk. A strategy to limit that risk might be a Credit Spread
Why a Credit Spread?

• The net Credit is less than an outright option sale but the risk is limited (difference in the strikes – less the credit received)
• Margin requirement less than an outright sale of a call or put option
• Eliminates potential volatility with stock, industry, overall market, political news, etc.
Credit Spread

• Call credit spread
  Sell a call (usually at or out-of-the-money) and buy a higher-strike call with the same month on the same underlying.

• Put credit spread
  Sell a put (usually at or out-of-the-money) and buy a lower-strike put with the same month on the same underlying.
Credit Spread – Which One To Do?

• Most Investors choose from either:
  
  • **OTM (Out-of-The-Money) spread**
    ✓ May have better chance of success than ATM (At-The-Money). (An OTM would have a lower delta)
    ✓ Lower credit received than ATM
    ✓ Potentially bigger losses when trade goes awry
  
  • **ATM spread**
    ✓ Greater credit received than an OTM
    ✓ Less chance of success than an OTM spread
    ✓ Potentially lower relative loss
Credit Spread Risk Considerations

• **OTM spread**
  • Might be a better change of success than ATM or ITM (lower delta)
  • Possible lower credit received
  • Potentially bigger losses when trade goes awry

• **ATM spread**
  • Potentially less chance of success than OTM spread
  • Potentially greater credit received
  • Possible lower relative loss potential

• We will concentrate on the **OTM Credit Spread**
Credit Spreads

Credit Spreads are typically used to bring in a credit but limit the risk of a major move.

Let’s use XYZ at $50. Our Investor thinks:

- XYZ is overbought and at the upper end of a trading channel
- There is no major news expected
- The Investor is mildly bearish short–term, thinks it will not rise by more than 10%
An OTM Call Credit Spread

With XYZ at $50:

Sell 1 35-day 55 strike call $1.75
Buy 1 35-day 60 strike call $0.60

$1.15 credit

Potential Gain: $ 1.15
Breakeven: $ 56.15
Risk: $ 3.85

(difference in the strikes less credit received)
Call Credit Spread
P&(L) Diagram

1.15

1.15

Current price $50

$45

$55

$60

Stock at expiration

(3.85)
With XYZ at $50 and selling the 55 – 60 call spread, the short strike (55 call) is 10% OTM. A 10% move in 5 weeks might seem unlikely, but is certainly possible. That is why an investor would buy the further out-of-the-money 60 strike call to protect themselves.
OTM Put Credit Spread

XYZ is at $50.

The share price is down considerably in the last 3 months from $80 to $50 per share. The price has stabilized in the past two weeks and there is no earnings report due in the next 8 weeks.

An investor might sell the 45 – 40 put credit spread, the short strike (45 put) is 10% OTM.
Put Credit Spread

When to use

• Bullish, not “bearish” stance
  ✓ Stock in Uptrend or in channel
  ✓ Oversold
  ✓ No news (earnings, etc.) or Mildly bullish news expected

• Bearish on volatility

A.K.A. bull put spread, short put spread
OTM Put Credit Spread

With XYZ at $50:

Sell 1 35-day 45 strike put $1.70
Buy 1 35-day 40 strike put $0.75

$0.95 credit

Potential Gain: $0.95
Breakeven: $44.05
Risk: $4.05

(difference in the strikes less credit received)
Put Credit Spread P&(L) Diagram

Current price $50

Stock at expiration

$40 $45

0.95

(4.05)
Credit Spread Guidelines

• Consider a credit at least 10% -15% spread width (A 5-point credit spread look for $0.50 plus)

• 5 trading days to 6 - 7 weeks max time horizon

• No major news (e.g. earnings) expected before expiration

• Sell “high” volatility (easier said than done)

• Generally works best with narrow (option bid/ask) markets, especially since two bid/asks involved in a spread.
Credit Spreads
How to Pick Strike Prices
Credit Spread – Analysis

If you have an opinion on a stock and have decided to use the OTM (Out-of-The-Money) credit spread, is there a way to choose the short strike?

Many investors choose a random OTM strike – there might be a better way....
Credit Spread – Which?

On-Line-Movie Corp (OLMC) trades at $140 per share (1/25/17). It announced earnings last week, which beat estimates slightly.

You decide to do an OTM Call Credit Spread expiry Friday, March 3rd (expiration 37 days). OLMC has 1-point strike prices below $150, so there are many combinations and choices available.

If you want to sell an OTM Call but stay out of harms way, which strike would you sell?
Credit Spread – The Math

With OLMC at $140 per share, maybe a little math would help. Is it easy to compute 1 standard deviation from $140? Yup, next slide.

And what does 1 standard deviation (SD) mean? ~2/3* of the time a stock should stay within 1 std dev in either direction. Since our concern is only to the upside, our risk would be half of that.

68.27% for math geeks, 2 SD’s 95.45%, 3 SD’s is 99.73%
Call Credit Spread Example

OLMC at $140
Which strike would you sell – the 148, 150?

$140 \times 0.26 \text{ (the implied volatility of the 3/3 ATM call)} \times \sqrt{\text{of days until expiration (6.1, } \sqrt{37} \text{ is } \sim 6.1)}), 19.11 \text{ (that’s the } \sqrt{365} \text{ days, implied volatility is an annualized number, we’re changing it to a March 3rd expiration)}.

Still with me? What is 1 SD above $140 for OLMC on March 3rd?
Call Example

OLMC at $140

$140 \times 0.26 \times 6.1, \oplus 19.11 = \$11.61

1 Std Dev above $140 for OLMC on March 3rd is 11.61 points higher, or $151.61

So if you want to sell an OTM option, don’t pick the 148 or 150 strike, maybe the 151 or 152
Credit Spread Considerations

I talked about staying away from earnings announcements and corporate events:

Alcoa kicked off the 1st Quarter earnings season 1/24. Many companies report over the next 3 weeks.

- Stay away? Maybe. Implied Volatilities (IV) are higher around earnings time.
- More like “be aware of when earnings will be announced – and proceed at your own risk”.
What if We Were Very Neutral?

With OLMC at $140
Using 3/3 expiration and 1 SD away ($11.61)

Sell the 152.50 - 157.50 call spread $0.53 cr.

**And**
Sell the 129 – 124 Put credit spread $0.60 cr.

$1.13 credit
The Iron Condor is a combination of a Call Credit Spread and a Put Credit Spread.

Two credits ($1.13 before transaction costs), but only one direction can hurt you – but you have risk in either direction.

One last math thing... There’s a 54% chance that one of the short (1 SD away) strikes will be touched before expiration....
Addt’l Iron Condor Comment

If the Call Credit Spread and Put Credit Spread in the Iron Condor are the same expiration and the width of the strikes is the same (we used a 5-point spread in both credit spreads), the margin requirement would, in our example, be only 5 points, less the net credit.

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