OPTIONS STRATEGIES

When do we want to use options?

There are MANY reasons to learn options trading and MANY scenarios in which you might trade them...

When we want leverage without additional exposure

Example - AMZN $700; 100 shares of AMZN is about $70,000; so, one (1) at the money contract that controls 100 shares of AMZN is about $25.00 or $25.00 x 100 = $2500

When markets are trending up or down, when markets are flat, when volatility is high or low and when we want to manage risk or gain leverage.

When we want to define our MAX risk (When long puts/calls, our risk/max loss is contained to the price we paid for our options).

When we want to lower our net average cost on a long position or hedge to protect it to the downside. Selling options for a credit.

When we want to trade a lotto play without exposing ourselves to unnecessary risk. Buy low, sell high when IV shoots up.

When we want to trade a volatile earnings/news play, but aren’t sure what to expect

Options traders are volatility hunters
Some basic rules before we can start trading options...

**Risk management** – It is easy to get carried away with the leverage. The general rule of thumb is to keep your position size limited to one spread per each $10k of equity in your account. For single leg long trades, calculate your max loss if the debit positions goes to $0. If the options went to a 100% loss overnight, how much would you be willing to lose? That is the size you should take. Does it make sense with your goals?

Seek to maintain a delta neutral portfolio. Why? RISK!

Not all brokers allow complex orders or multi leg order entry. Use an options centric broker if you plan to trade a lot of options. You don’t need a ton of cash to trade them. Consider a broker like OptionsHouse, Interactive Brokers, or Lightspeed. If using a direct market access broker like Speedtrader, you will need to enter the long leg of a spread before you can enter the short. This will complicate the calculation for your average price, entries and exits. You will have to track the bid/ask of the spread using midpoints...not fun!

To trade options, you will need approval from your broker. The following are pretty standard options levels that require separate approval:

- **Level 1**: Covered calls, protective puts (Secured with stock you own)
- **Level 2**: Long calls/puts
- **Level 3**: Spreads (bull call, bear put, bull put, bear call, diagonal, vertical, condors)
- **Level 4**: Uncovered or Naked options (risky business and potential for unlimited risk)
We talked about puts and calls for a debit only position, but we need to learn how they can work together, both long and short, in other applications as well.

**Straddles**: An options strategy in which the investor holds a position in both a call and a put, with the same strike price and expiration date. This happens when the investor believes that a stock’s price will move significantly, but is unsure as to which direction (earnings, conference calls). The investor loses money if/when the stock trades flat or only moves a little in either direction. This trade is most profitable on volatile moves.

**Strangles**: An options strategy where the investor holds a position in both a call and put with different strike prices but with the same maturity and underlying asset. This option strategy is profitable only if there are large movements in the price of the underlying asset. This is usually cheaper than a straddle as the strikes are out of the money. We would use a strangle if we were more biased to one direction. A strangle allows us to “guess” the size of the move buy selecting our choice of OTM strikes for puts and calls. This trade is most profitable on volatile moves.

**Covered Calls**: An options strategy where the investor holds a long position in an asset and writes (sells) call options on that same asset in an attempt to generate increased income from the asset. This can be used to generate income when the stock is trading flat, or to offset the net cost of the stock in the event the trade goes against you. You collect premium from selling the call, and that reduces your average price of the stock. This is also known as a “buy-write”. Example: If you own 100 shares of XYZ stock at $20 and sell 1 $25 call for $5, you now own 100 shares of XYZ stock for $15. (100 x $20 = -$2000 [your cost to own the shares]; $5.00 x 100 = $500 [you collect when writing the call]; -$2000 + $500 = -$1500; $1500/100 = $15 per share
Credit v. Debit - In a credit trade money is received up front for putting on the trade, whereas in a debit, you are paying to take the trade. Risk is generally greater with credit trades, but they have a higher probability of success. In a debit trade, risk is defined/capped, but the probability of success is usually lower.

Credit Spread – An options strategy where a higher premium option (ATM/ITM) is sold and a low premium option (OTM) is bought on the same underlying security. This is a sell to open strategy (like shorting). You buy to close for a debit, when you are done. You seek to make money on the drop in premium price. Time decay or a drop in IV are helpful.

Debit Spread – Two options with different market prices that an investor trades on the same underlying security. The higher priced option (ATM/ITM) is purchased and the lower premium option (OTM) is sold – both at the same time. The higher the debit spread, the greater the initial cash outflow the investor will incur on the transaction. This is a buy to open strategy. You sell to close for a credit (hopefully more than you paid to open!). An increase in IV in a short amount of time is helpful.
Credit Spreads can be broken down into two simpler strategies

Bear Call Spread (bearish, credit): Use when IV is high. Seeks a decrease in high IV when compared to HV. Also known as a vertical call credit spread.
Bull Put Spread (bullish, credit): Use when IV is high. Seeking the decrease of high IV when compared to HV. Also known as a vertical put credit spread.
**OPTIONS STRATEGIES**

**Iron Condor** (neutral, credit) – Use when IV is high and before a large event like earnings. Seeking the decrease of high IV when compared to HV. Profits from vol crush. Composed of an out of the money bear call spread and bull put spread. (Rarely used)
OPTIONS STRATEGIES

Debit Spreads can be broken down into two simpler strategies

Bull Call Spread (bullish, debit): Use when IV is low. Seeking an increase in price and low IV when compared to HV. Also known as a vertical call debit spread.
Options Strategies

Bear Put Spread (bearish, debit): Use when IV is low. Seeking an increase in low IV when compared to HV. Also known as a vertical put debit spread.
**OPTIONS STRATEGIES**

**Reverse Iron Condor** (neutral, debit): Use when IV is lower before a large event, like earnings. Seeking the increase in low IV when compared to HV. Profits from large, dramatic moves. Composed of an out of the money bull call and bear put spread.
How do you pick the highest probability setup for the earnings iron condor?


- Calculate the Market Maker Move. The MMM is a measure of the expected magnitude of price movement based on market volatility. This doesn't mean that it measures expected movement, but rather the implied move, based on volatility, in dollars versus percent. You can use a tool like OptionHacker.com to tell you, Think or Swim, or less accurately, you can do some simple math.

Add up the AT the money call premium with the AT the money put premium, for the nearest term expiration. This will tell you what the market makers have priced into the premiums for an anticipated move for the underlying, in dollars. This is helpful when choosing your short strikes for your iron condor. You don't want to choose short strikes inside of the MMM! Add a cushion based on previous moves.

- Find a stock with a history of smaller moves, no surprises. Avoid AMZN, CMG, NFLX types as they have a history of big moves. We want a relatively flat move...as this is a credit strategy trade!

- Aim for a total trade credit of around .45c-.55c. Any less, and the reward is not worth the risk of taking the trade. Any more, and the risk increases as well...why do you think they are paying you a bigger credit?!

- Take the trade in the session PRIOR to the earnings event. Not sooner. Use limit orders and DO NOT chase.

- Set a profit target for 30-50% of your credit. Example: .50c credit, I might put a buy to close order at .25c.

- Whenever possible, close the short leg of trades after earnings. Never let the trade expire worthless. Is .10c extra profit worth a halt and gap on expiration day?
OPTIONS STRATEGIES

How do we find these trades? Other traders, news, scanners, by accident, etc.

How do we decide which strategy to apply? Easy. **REMEMBER** If it is a low IV play, we buy volatility, we are debit traders. If it is a high IV play, we sell volatility, we are credit traders.

How do we know what the IV is? If your broker tracks IV/HV, you can look at that and compare where the IV is in relation to the HV. You can use free tools from dough.com or ivolatility.com or paid analytics tools for options, like those from eSignal and others.
OPTIONS STRATEGIES

Remember, credit trades have a 66% chance of being a winner, versus a debit trade with only a 50% chance. What does this mean? Credit trades are a winner if at expiration it is AT the money or OUT of the money. It can only lose if the option expires IN the money. A debit trade can ONLY win if it is IN the money at expiration. Remember, all value in out of the money options is time. At expiration there is no time left in out of the money options and at the money options...so those become worthless. Good for options writers, bad for options buyers.

Credit trades are generally considered to have a higher probability of success, but with a fixed reward/payout (the initial credit). Debit trades are lower probability of success, but can have higher payouts, depending on how far IN the money the option is at expiration. Everything in trading is a risk reward evaluation. This is no different! Remember the rule on what to do when faced with low or high IV.

Why use a spread? Doesn’t using a spread cap your gains? How many infinity winners have you seen versus how about we protect from risk of theta/vega. Base hits win ball games, not homeruns. If you are around to take enough swings, eventually you will hit a homer.

Profit target on all options trades is 30-50%! Why? Cause that is sweet spot for the highest number of winners!
OPTIONS STRATEGIES

Covered Call: A conservative strategy where you own shares of the underlying security. You sell an out of the money call against your stock position (500 shares = 5 call contracts). This is a credit trade where you collect the premium for selling the calls. This profits when the options expire worthless and you keep 100% of the premium, or if you get assigned and sell your stock for a profit and keep 100% of the premium.

A win/win, unless you didn’t want to sell

Use Covered Calls to cap profits, generate income, lower average price
How to calculate your breakeven price when trading options...

Before buying any call or put, you should know how to calculate your breakeven price in order to determine profitability. Most brokers will do this automatically for you anyway.

**Calls:** Strike price + Option premium cost + Commission and any fees/transaction costs = breakeven price

So, if buying July $50 calls on XYZ stock that sell for $2.50 (premium) and have a $20 commission, your breakeven is:

\[ \text{Breakeven price} = \text{Strike price} + \text{Option premium cost} + \text{Commission} \]

\[ \text{Breakeven price} = 50 + 2.50 + 0.20 = 52.70 \text{ per share} \]

(This means that to make a profit on this call option, the price per share of XYZ has to rise above $52.70)

**Puts:** Strike price - Options Premium cost - Commission and any fees/transaction costs = breakeven price

So, if buying July $50 puts on XYZ stock that sell for $2.50 (premium) and have a $20 commission, your breakeven is:

\[ \text{Breakeven price} = \text{Strike price} - \text{Option premium cost} - \text{Commission} \]

\[ \text{Breakeven price} = 50 - 2.50 - 0.20 = 47.30 \text{ per share} \]

(This means that to make a profit on the put option, the price per share of XYZ has to fall below $47.30)
OPTIONS STRATEGIES

GENERAL ‘rule of thumb checklist’ for using options to trade in place of stock...

MAJOR Breakout (anticipated): OTM Strike
- Profits best on big breakouts
- Risk less than At the Money or In the Money call, lower chance of success
- Moves to (and through) high gamma as it becomes in ITM
- Out of the Money call
  - Small delta (.25-.35)
  - Leveraged Speculation play
OPTIONS STRATEGIES

Slow Trend Play: ITM Strike
- In the Money call
  - HIGH delta (0.70-.90)
  - Stock substitute play
- Starts profiting right away
- Profits well on small moves
- Risk more than At the Money or Out of the Money calls, but significantly less than buying the stock
- Low Theta (intrinsic value vs. extrinsic)

MINOR breakouts (anticipated): ATM Strike
- Profits well on small breakouts (better R/R)
- Risk more than using Out of the Money calls, but less than In the Money
- Highest Gamma
  - At the money call
  - 50ish delta
  - Leveraged speculation play
## Options Strategies

Options calculator http://www.optionsprofitcalculator.com/

### Estimated returns - $3Y3 at $81.37 on 8th Feb 2015

Initial outlay: $510 (net debit) see details

Maximum risk: $510 at a price of $0 at expiry

Maximum return: infinite on upside

Break even at expiry: $551.10

<table>
<thead>
<tr>
<th>Share this on</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook</td>
<td></td>
</tr>
<tr>
<td>Twitter</td>
<td></td>
</tr>
</tbody>
</table>

### Tables

<table>
<thead>
<tr>
<th>Feb</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td></td>
</tr>
<tr>
<td>55</td>
<td></td>
</tr>
</tbody>
</table>

### May

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td></td>
</tr>
<tr>
<td>55</td>
<td></td>
</tr>
</tbody>
</table>

### Jun

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td></td>
</tr>
<tr>
<td>55</td>
<td></td>
</tr>
</tbody>
</table>
Questions, comments, concerns?

Email me: jeff@warriortrading.com

If you are so inclined, you can learn more about the complicated calculations that go into options premium pricing. The Black-Scholes Model is the grand daddy of options premium pricing.

\[
C = SN(d_1) - N(d_2)Ke^{-rT} \\
C = \text{Call premium} \\\nS = \text{Current stock price} \\\nt = \text{Time until option exercise} \\\nK = \text{Option striking price} \\\nr = \text{Riskfree interest rate} \\\n\sigma = \text{Cumulative standard normal distribution} \\\n\sigma = \text{Exponential term} \\\n\sigma = \text{St. Deviation} \\\n\ln = \text{Natural Log}
\]

\[
d_1 = \frac{\ln(S/K) + (r + \frac{\sigma^2}{2})t}{\sqrt{t}} \\
d_2 = d_1 - \sqrt{t}
\]