Introduction to Hedging: Protection in Uncertain Times
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 should not be construed as an endorsement or recommendation.

- Trailing Stop orders are monitored between 9:30 AM and 4:00 PM Eastern Standard Time and are maintained on a separate order file on a “not held” basis until triggered, at which time they are sent to the marketplace. Additional information about Trailing Stop orders is available at Fidelity.com (link: https://www.fidelity.com/bin-public/060_www_fidelity_com/documents/Conditional_Orders.pdf)

- ATP: Active Trader Pro PlatformsSM is available to customers trading 36 times or more in a rolling 12-month period.

- P/L Calc: 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 Presentation

Help grasp the general concept of hedging and the different methods that could be used

What we will cover:
- What is hedging and why do trader’s do it
- Stop, Trailing Stop, and Conditional orders
- Protective Puts
- Beta… what is it?
- Collars
Introduction to Hedging

What is hedging?
- Protecting a security and/or a portfolio to minimize the impact of an adverse move.

Why do trader’s hedge?
- Concern with recent volatility, but still bullish
- Overall market or sector weakness
- Shift in fundamental information that caused you some concern
- Technical analysis is providing possible bearish signals
- Tax situation is not favorable to liquidate at this point

Trader’s View: Hedging is not the same as speculation. Hedging is used to protect from, not profit from, an adverse price move.
# Order Types Used to Manage Equity Positions

<table>
<thead>
<tr>
<th>Order Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stop loss</strong></td>
<td>Dormant market order until triggered by last trade at or below the defined price (viewed by the market)</td>
</tr>
<tr>
<td><strong>Stop limit</strong></td>
<td>Dormant limit order until triggered by last trade at or below the defined price (viewed by the market)</td>
</tr>
<tr>
<td><strong>Trailing stop loss</strong></td>
<td>Moving dormant market order where the trigger/stop is defined by percentage or specific amount from the defined trigger (last, bid, ask) (in house)</td>
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<tr>
<td><strong>Trailing stop limit</strong></td>
<td>Moving dormant limit order where the trigger/stop is defined by a percentage or specific amount from the defined trigger (last, bid, ask) (in house)</td>
</tr>
<tr>
<td><strong>Conditional orders</strong></td>
<td>These orders can also be used, and triggered based on any number of criteria</td>
</tr>
</tbody>
</table>

**Trader’s View:** Price alerts can be setup as an alternative to using a stop order.

- Trigger prices pertain to equities
Enemy of Stop Orders: Gapping Risk

Security gapping could cause a much different result than what was expected from the stop order.
Stop and Trailing Stop Loss/Limit breakdown

**Advantages:**
- Low cost (commission)
- Automatically closes the position
- Disciplined trading process reduces emotional decisions
- Attaches price, or percentage, to define loss threshold
- Exit position when important support/resistance level breached

**Disadvantages:**
- Gapping risk (for stop orders)
- Order never executing because the security continues to move (stop limits)
- Liquidate at unfavorable time (tax situation, trigger too close)
Ways to Hedge

- A hedge can be anything that gains value as the position you are concerned about is losing value.
- A true hedge defines the potential loss on a long position.
- The more separation between the position of concern and its hedge, the less effective the hedge will be.

There are many popular ways to hedge:

1. Using put contracts on individual positions
2. Using puts on an index as a proxy for a portfolio or subset of a portfolio
3. Going long securities that have a history of moving in the inverse direction of the position
Buying Puts to Protect Position/Portfolio

- Premium is spent to pay for protection on security or index, puts increase in value when underlying decreases in value

**Advantages:**

- Acts as a true hedge
- The contract holder controls if/when the contract is exercised
- Allow more flexibility for managing individual tax situations
- No gapping risk while the hedge is on

**Disadvantages:**

- Cost to establish and manage – Increases breakeven on the position
- Often costs more when the true “need” arises
- Time to manage
- Requires an understanding of a more complex financial instrument

**Trader’s View:** Hedge begins at breakeven of puts (Strike – Premium paid). Remember you paid a premium to have the hedge.
Buying Puts to Protect Position/Portfolio

Assume entry @ $92.76 on 4/17/14

Hedge established while underlying is @ $96.63 on 7/31/14

Support identified around $94.00

Using Jan 2015 $95 Puts @ $3.95
Buying Puts to Protect Position/Portfolio

Max loss to the downside is now limited to $174.00

Breakeven increases to $96.71 from $92.76

Unlimited profit potential remains

Buying ATM protective puts defines the loss on the position

Trader’s View: Make sure to provide appropriate duration. Remember the closer to expiration, the higher the time decay with each passing day.

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Buying Puts to Protect Position/Portfolio

Entry @ $92.76 on 4/17/14

Current price $79.63

Hedged Position:
Loss Limited to $174

Unhedged Position:
Loss of $13.13/share = $1313 total loss
Buying Puts to Protect Position/Portfolio

- For larger portfolios, some trader’s will use puts on an index or ETF as a hedge
  - Most common index or ETF to hedge portfolios is the S&P 500 (SPY, IVV) – other indices may be more appropriate depending on the portfolio
  - Not exact, risk of tracking error

- Buying puts for each individual positions provides the most effective hedge, but is usually more expensive and requires more time to manage

- To calculate the # of contracts needed, take the current value of target asset to hedge divided by total market value that the puts cover (usually Strike Price * 100)

  **For example:** At the time of this writing, the S&P 500 was at 2050. Each ATM contract covers $205,000 (2050 * 100). A closely correlated $1,000,000 equity portfolio could be hedged with 5 puts on the index.

**Trader’s View:** If using index or ETF put contracts, consider the differences in exercise style and deliverable on the contracts
Beta... What is it?

- Measures the sensitivity of price change of an underlying compared to a benchmark
- A Beta of 1.00 means the asset’s prices move together
- The most common benchmark traders use is the S&P 500 but beta weighting can be done between any 2 assets
- Beta is not a static measure, it is constantly changing

**Trader’s View:** Beta weighting the portfolio allows a trader to adjust the hedge to become more effective, but beta is constantly changing
Collars

- **Collar**: Buying a protective put and reducing the cost by selling an OTM call
  - Limits upside gain, but reduces the cost of the hedge

**Trader's View:** A put spread can also be used to reduce the cost of the protective put, but it only protects the position down to the short strike

- Max loss to the downside is now limited to $74.00 – lower than the protective put due to premium from the call
- Breakeven is lower than the protective put: $95.71 vs $96.71
- Tradeoff: Max gain is now limited

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## Introduction to Hedging

<table>
<thead>
<tr>
<th></th>
<th>Stop Orders</th>
<th>Protective Puts</th>
<th>Index Puts</th>
<th>Collars</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost</strong></td>
<td>Cost of a commission</td>
<td>Most costly, individual position basis</td>
<td>Usually less costly than buying on individual positions</td>
<td>Selling the call reduces the cost of the hedge</td>
</tr>
<tr>
<td><strong>Upside</strong></td>
<td>Unlimited</td>
<td>Unlimited</td>
<td>Unlimited</td>
<td>Limited</td>
</tr>
<tr>
<td><strong>Effectiveness</strong></td>
<td>Does not serve as a true hedge</td>
<td>Most effective due to direct relationship with the underlying</td>
<td>Effectiveness will vary depending on level of correlation between index and the stock portfolio</td>
<td>Most effective due to direct relationship with the underlying</td>
</tr>
<tr>
<td><strong>Ease of Management</strong></td>
<td>Dependent on the number of positions – may require significant or little effort</td>
<td>May require significant time and effort to manage</td>
<td>Generally requires the least time and effort to manage</td>
<td>May require significant time and effort to manage</td>
</tr>
</tbody>
</table>
Key Takeaways

- Hedging is done to minimize the impact of an adverse move:
  - Short term volatility experienced with bullish outlook
  - Overall market weakness
  - Liquidating would create unfavorable tax situation
  - Shift in fundamentals
  - Technical indicators are giving bearish sentiment but long term outlook bullish

- Stop and trailing stop orders can help manage risk for the cost of a commission, but do not serve as a true hedge

- Protective puts serve as an effective hedge, but at the cost of the premium

- The stronger the relationship between the hedge, and the asset it is intended to protect, the more effective the hedge will be

- Collars allows for more cost effective hedges at the cost of upside potential
Introduction to Hedging

This concludes today’s presentation.

Thank you for attending.

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For additional support, I’m happy to have a 1:1 appointment at your convenience.