Choosing the Best Option Strategy

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Peter Lusk - The Options Institute at CBOE

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In order to simplify the computations, commissions have not been included in the examples used in these materials. Commission costs will impact the outcome of all stock and options transactions and must be considered prior to entering into any transactions. Multiple-leg strategies involve multiple commission charges.

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Presentation Outline

• Quiz - Pick the best option
• Buy Call vs Bull Call Spread
• Straddle vs Strangle
• Protective Put vs Collar
Pick the Best Option
Quiz – Pick the Best Option

50 days to expiration

Stock   92.80 → 96.50
Days to Exp.   50 → 40
(50-day options)

91 Call  4.10 →
93 Call  2.90 →
95 Call  1.95 →
97 Call  1.20 →

Which option would you buy?
### Quiz – Pick the Best Option

50 days to expiration

<table>
<thead>
<tr>
<th>Stock</th>
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</table>

(50-day options)

<table>
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<tr>
<th>Option</th>
<th>4.10 → 6.40</th>
<th>+2.30</th>
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<tbody>
<tr>
<td>91 Call</td>
<td></td>
<td></td>
</tr>
<tr>
<td>93 Call</td>
<td>2.90 → 4.95</td>
<td>+2.05</td>
</tr>
<tr>
<td>95 Call</td>
<td>1.95 → 3.70</td>
<td>+1.75</td>
</tr>
<tr>
<td>97 Call</td>
<td>1.20 → 2.70</td>
<td>+1.50</td>
</tr>
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*Estimated results in $*
# Quiz – Pick the Best Option

50 days to expiration

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<td></td>
<td>4.10 → 6.40</td>
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<td>1.95 → 3.70</td>
<td>1.20 → 2.70</td>
</tr>
<tr>
<td></td>
<td>+2.30 + 56%</td>
<td>+2.05 + 70%</td>
<td>+1.75 + 90%</td>
<td>+1.50 +125%</td>
</tr>
</tbody>
</table>

Estimated results in %
Time Decay and Volatility
ATM Call Option

Option premium erodes with the passage of time
° only time value affected – not intrinsic value
° erosion accelerates as expiration approaches
Effects of Changing Volatility

<table>
<thead>
<tr>
<th>Change in Volatility (Implied or Assumed)</th>
<th>Call Prices</th>
<th>Put Prices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility ↑</td>
<td>↑</td>
<td>↑</td>
</tr>
<tr>
<td>Volatility ↓</td>
<td>↓</td>
<td>↓</td>
</tr>
</tbody>
</table>
Volatility

- Only options have implied volatility
- IV predicts a stock's future volatility
Buy Call vs Bull Call Spread
Planning a Trade

Three-Part Forecast

1) What will the stock do?
2) How long will it take?
3) What about volatility?

Forecasts are the foundation of all option trades
Buy Call Example

Max Loss
$290.00

Max Profit
Unlimited

Break-even point
lower strike + debit paid
$50.00 + $2.90 = $52.90

Long 50 strike call $2.90

Not including commissions
## Two Greeks

**Buy Call**

<table>
<thead>
<tr>
<th>Vega</th>
<th>Theta</th>
</tr>
</thead>
<tbody>
<tr>
<td>+.10</td>
<td>−0.03</td>
</tr>
</tbody>
</table>

Long 50 Call 2.90
Bull Call Spread Example

Max Profit $330.00
Max Loss $170.00

Break-even point
lower strike + debit paid
$50.00 + $1.70 = $51.70

Long 50 Call 2.90
Short 55 Call 1.20
Net Debit 1.70

Not including commissions
## Two Greeks

**Bull Call Spread**

<table>
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<tr>
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<th>Vega</th>
<th>Theta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long 50 Call</td>
<td>2.90</td>
<td>+.10</td>
</tr>
<tr>
<td>Short 55 Call</td>
<td>1.20</td>
<td>−.08</td>
</tr>
<tr>
<td>Net Debit</td>
<td>1.70</td>
<td>+.02</td>
</tr>
</tbody>
</table>
Straddle vs Strangle
Long Straddle Example

Maximum Loss:
- $6.20 Debit Paid
- $620.00 Total

Break-even at Expiration:
- Upside = Strike + Debit Paid
  - $50.00 + $6.20 = $56.20
- Downside = Strike – Debit Paid
  - $50.00 – $6.20 = $43.80

Not including commissions

Long 50 ATM call $3.20
Long 50 ATM put $3.00
Net debit $6.20

Long 45 ATM call $3.20
Long 55 ATM put $3.00
Net debit $6.20
## Two Greeks

<table>
<thead>
<tr>
<th>Position</th>
<th>Vega</th>
<th>Theta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long 50 Call</td>
<td>+.10</td>
<td>- 0.03</td>
</tr>
<tr>
<td>Long 50 Put</td>
<td>+.10</td>
<td>- 0.03</td>
</tr>
<tr>
<td>Net Debit</td>
<td>+.20</td>
<td>- .06</td>
</tr>
</tbody>
</table>
**Long Strangle Example**

**Maximum Loss:**
- $2.45 Debit Paid
- $245.00 Total

**Break-even at Expiration:**
- Upside = Call Strike + Debit Paid
  - $55.00 + $2.45 = $57.45
- Downside = Put Strike – Debit Paid
  - $45.00 – $2.45 = $42.55

Not including commissions

Long 55.00 call  $1.40
Long 45.00 put  $1.05
net cost:  $2.45
## Two Greeks

<table>
<thead>
<tr>
<th>Long Strangle</th>
<th>Vega</th>
<th>Theta</th>
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</thead>
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<tr>
<td>Long 55 Call</td>
<td>1.40</td>
<td>+.06</td>
</tr>
<tr>
<td>Long 45 Put</td>
<td>1.05</td>
<td>+.06</td>
</tr>
<tr>
<td>Net Debit</td>
<td>2.45</td>
<td>+.12</td>
</tr>
</tbody>
</table>
Protective Put vs Collar
Protective Put

Own 100 shares XYZ at $42.00
Buy 1 60-day XYZ 40 put at $1.55

Break-even at Expiration:
Stock Price Paid + Put Premium Paid
$42.00 + $1.55 = $43.55

Maximum Loss:
Stock Price – Break-even for Put
$42.00 – ($40.00 – $1.55) = $3.55
$355.00 Total
# The Collar

Own 100 XYZ shares at $42

<table>
<thead>
<tr>
<th>60-day</th>
<th>Calls</th>
<th>Puts</th>
</tr>
</thead>
<tbody>
<tr>
<td>39</td>
<td>$4.20</td>
<td>$1.15</td>
</tr>
<tr>
<td>40</td>
<td>$3.55</td>
<td>$1.55</td>
</tr>
<tr>
<td>41</td>
<td>$3.00</td>
<td>$1.95</td>
</tr>
<tr>
<td>42</td>
<td>$2.50</td>
<td>$2.45</td>
</tr>
<tr>
<td>43</td>
<td>$2.05</td>
<td>$3.00</td>
</tr>
<tr>
<td>44</td>
<td>$1.65</td>
<td>$3.65</td>
</tr>
<tr>
<td>45</td>
<td>$1.35</td>
<td>$4.30</td>
</tr>
</tbody>
</table>

Buy 1 60-day XYZ 40 put at $1.55
Sell 1 60-day XYZ 44 Call at $1.65

Net Credit  $0.10
The Collar

Own 100 shares XYZ at $42.00
Buy 1 60-day XYZ 40 put at $1.55
Sell 1 60-day XYZ 44 Call at $1.65
Net Credit $0.10

Break-even at Expiration:
Stock Price – Net Credit
$42.00 - $0.10 = $41.90

Maximum Loss:
Stock Price – Put Strike – Net Credit
($42.00 – 40.00) – $0.10 = $1.90
$190.00 Total
Summary

What is the plan to make money?
  • Market direction?
  • Time erosion?
  • Change in volatility?

Set realistic expectations

Get familiar with all possible strategies

Don’t overtrade
Thank you for attending!