Directional Options Trading
Strategy And Position Management

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Introduction

OBJECTIVES

- Emphasize/Maintain a Directional Mindset
- Review Quantitative Factors
- Review Trade Examples/Scenarios
- Discuss Structuring and Risk Management
- Open Discussion and Questions
What Is Directional Trading?

Directional Trading Strategies:

- Utilize options to express a view or opinion on potential stock movement
- Focus on achieving “leverage” through proper “Delta” selection
- Analyze Key Quantitative Factors to Determine the “Best” Strategy to Utilize

The Directional Trading Process is:

- Define View
- Structure (Hard)
- Risk Manage (Art)
Directional Trading Mindset/Objective

Hedging  Speculative  Yield

- Directional trading seeks to achieve “one” of the above goals
- Option strategies can fall under different goals
- Directional Traders remain OPEN to exploring ALL possible strategies
- When trading “directionally,” it is REQUIRED to define the goal in advance
Directional Trading Trends

Facts and Stats from the Sell-Side

- For 2014, Directional Trading Strategies Dominate Desk Flows

- United States Equity Markets Participants Are “Bottoms Up” Investing

- Directional Strategies Are Not just for “Hedge Funds”

- Between 75% to 85% Of Flows are Single Stock Related

- Most Popular Strategies Are:
  - M&A Based Strategies – Term Structure Trades – Reversal/Conversions
  - Directional Long/Short and Stock Substitutes Strategies – Upside Calls
  - Yield Generation – Short Put Sales outsize Active Overwriting
Quantitative Factors

Implied Volatility (Vega)

- Volatility is a measure of price variation over time
- The markets attempt to “anticipate the anticipation”
- Implied volatility is forward-looking (the market’s estimate of future volatility)
- Historical volatility is calculated from known price behavior in the past
Quantitative Factors

SKEW

- Difference between implied volatility levels at different strike prices
- Defines the curve of volatility
- Serves as a gauge for determining possible risk scenarios and market positioning
- Helps directional traders analyze different trading strategies
GAMMA

- The rate of change in delta with respect to the underlying price
- Mathematically, gamma is the second derivative of an options value with respect to underlying price
- Used to gauge the price movement of an option, relative to the amount it is in or out of the money. (Change in DELTA)
- Largest for at-the-money options
THETA

- A measure of the rate of decline in the value of an option due to the passage of time. (Time Decay)
- The measure of theta quantifies the risk that time imposes on options as options are only exercisable for a certain period of time
- Time has importance for option traders on a conceptual level more than a practical one, so theta is not often used by traders in formulating the value of an option
Quantitative Factors And Momentum Names

Facebook and GOGO

- **Facebook (FB) - Earnings Date Change**
  - Accounts utilized *WEEKLY* options to:
    - Take Advantage of Shift in Volatility
    - Change Strike Exposure

- **GOGO Inc. (GOGO) – High Implied Volatility Alternative**
  - Accounts Sought Long Exposure Into Earnings
    - Took Advantage of Cheaper Longer Dated *ITM* Volatility
    - Purchased Higher Delta Options Achieving Intrinsic Value
    - Achieved Lower Theta and Gained Time
Why Use Options for Directional Trading?

- To create leverage through optionality
- To limit downside
- To express views on timing or trading ranges

→ The lower the volatility, the higher the leverage you get from using optionality
Implied Volatility Is Key Driver of Option Prices

- Major drivers of option pricing:
  - Implied Volatility
  - Rates
  - Maturity
  - Dividends

- **Implied Volatility** will tell you if the option is cheap or expensive and if it provides you with high leverage.

- Options can be compared to insurance premium → premium goes up as uncertainty increases.
How to Evaluate Implied Volatility?

- Implied vs Realized – the basics of the volatility
- Spread/Peer Analysis - FX effect – EU vs US, XOM vs CVX, JPY vs NKY
- Cap Structure Analysis – is credit telling us something else?
- Event Risk – are earnings / large catalyst mispriced?
- Correlation Analysis – are components or benchmark cheaper?

- Imbalances between supply and demand of volatility create inefficiencies such as skews and term structures
  → Can be used to enhance risk reward profile of directional trades!
Supply / Demand Opportunities

Term Structure

- Demand for US long-term protection
- Short-term call overwriting in US
- Supply of puts in Asia for yield enhancement purposes
- Demand for calls in Asia from Macro and Retail

Skew

90-100% skew S&P500 and Nikkei225 by maturity

<table>
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<tr>
<th></th>
<th>SPX</th>
<th>NKY</th>
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<tr>
<td>1M</td>
<td>9.51%</td>
<td>7.01%</td>
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<tr>
<td>3M</td>
<td>5.77%</td>
<td>2.76%</td>
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<tr>
<td>6M</td>
<td>4.30%</td>
<td>1.62%</td>
</tr>
<tr>
<td>9M</td>
<td>3.60%</td>
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<tr>
<td>1Y</td>
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<tr>
<td>2Y</td>
<td>2.20%</td>
<td>0.38%</td>
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</table>
Exploiting Term Structure and Skew Inefficiencies

Trade example 1: Leverage on upside convexity

<table>
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<th>Options Quick Pricer 3.2</th>
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<tbody>
<tr>
<td>Underlying</td>
</tr>
<tr>
<td>spx index</td>
</tr>
<tr>
<td>nky index</td>
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</tbody>
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Idea:
- benefit from a broad based rally
- take advantage of structural inefficiencies

Structure:
- buy 10x SPX calls vs 1x NKY/RTY/..
- flat premium
- 10x leverage

Risk Management:
- diversify short leg
- don’t hold to maturity, take profit or roll
**Exploiting Term Structure and Skew Inefficiencies**

**Trade example 2: Outperformance Asia over US**

**Idea:**
- NKY outperformance over SPX on upside

**Structure:**
- Jun15 102%-114% call spread switch
- Premium flat

**Risk Management:**
- Requires consistent monitoring
- Needs to be rolled or taken off when targets are met
Exploiting Skew Inefficiencies

Trade example 3: SPX calls vs puts

<table>
<thead>
<tr>
<th>Underlying</th>
<th>Spot Price</th>
<th>Market</th>
<th>Maturity</th>
<th>Strike</th>
<th>Strike%</th>
<th>C/P</th>
<th>A/E</th>
<th>Amount</th>
<th>Notional, $</th>
<th>Vol</th>
<th>Price</th>
<th>price %</th>
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</thead>
<tbody>
<tr>
<td>spx index</td>
<td>1940.00</td>
<td>CBOE</td>
<td>19-Sep-14</td>
<td>2,037</td>
<td>105.00%</td>
<td>C</td>
<td>E</td>
<td>62,000</td>
<td>120,280,000</td>
<td>8.71</td>
<td>0.7473</td>
<td>0.04%</td>
</tr>
<tr>
<td>spx index</td>
<td>1940.00</td>
<td>CBOE</td>
<td>19-Sep-14</td>
<td>1,843</td>
<td>95.00%</td>
<td>P</td>
<td>E</td>
<td>-5,000</td>
<td>-9,700,000</td>
<td>16.50</td>
<td>9.1895</td>
<td>0.47%</td>
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</tbody>
</table>

**Idea:**
- Long market
- Use skew inefficiencies to reduce downside

**Structure:**
- 6 week 12x 105% call vs 1x 95% put
- Costless
Exploiting Vol of Vol premiums

Trade example 4: Downside protection / hedging

Idea:
- Buy downside protection

Structure:
- VIX® wings bid for crash protection
- VIX® expired only 4x below 12 since ‘06
- Avoid the roll down on the futures
- Buy 17/23 Sep14 Call spread vs 12 Put
- Costless

Risk Management:
- protection from 17 – 23
- Roll the structure to higher strikes once ITM
- Buy back 12 put when worthless
Trade example 5: Contrarian trade on Silver

**Idea:**
- Get long Silver after a 60% correction
- Benefit from vol at a 8 year low
- Benefit from any upside rally or shock (rerating of vol levels)

**Structure:**
- Simply buy Jan16 ATM call is trading at 2USD
- Pay hardly no decay (long-dated)
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  ... over all potential prices, volatilities and changing liquidity
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Hedge positions and control worst-case loss

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Reduce volatility of your returns

Achieve structured derivatives results using listed products

Gain edge

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