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Market Chameleon

How to Screen for Calendar Time Spread Opportunities Using IV Term Structure

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Calendar Spreads

Outlook

Strategy Set-Up

Profit/Loss Analysis

Valuation

Strikes

Risks

Outlook

Can be **directional or neutral**- depends on the strikes that you use

Long calendar spread has a **positive vega**- You are getting long implied volatility

Horizontal implied volatility **skew**- You are selling an implied volatility in one expiration month and buying implied volatility of an option with a different expiration month

Strategy Set Up

Long Calendar Spread

Choose a target strike price

Sell an option on a nearer term expiration

Buy an option with the same strike on a longer dated contract

Profit and Loss Chart

The profit and loss is **difficult** to calculate because both options expire on different dates.

Ex:

Option 1 (DTE 15)

The option with the first expiration date will be worth parity at its expiration-
depending on the stock price

Option 2 (DTE 30)

The longer dated option will still have DTE and time premium left

Profit and Loss

Which Expiration to Use?

You can calculate the estimated profit and loss using the **first expiration date**.

After the near term option expires, the strategy is no longer a spread.

We can calculate the first option value based on the expected stock price. (It will be either worthless or in-the-money) If it is ITM the option value is the difference between the strike and stock price

The **second option** we need to **estimate the implied volatility** of the option to calculate the remaining time premium

Profit and Loss

We can use historical data to estimate the implied volatility of the longer dated option when the near term option expires

- Based on DTE left

- Starting Point Median IV

Valuation

Is the Spread Expensive or Cheap?

We can use historical data to measure the usual relationship between the 2 options.

Use historical observations of similar options with same strike distances and time differences (in similar situations)

We can take the average spread value as a valuation benchmark

There is a skew between the different options (Horizontal Skew)

Strikes

If you are bullish you would look for a strike above the spot price

If you are bearish you would look for a strike below the spot price

If you believe the stock will not move you would look for ATM strike

Calendar Spread Risks

Directional risk

Vega risk or implied volatility risk

Gamma risk

Theta Risk and Time Decay

Term Structure

Early exercise or assignment risk

Screener and Examples

We will screen calendar spreads using different criteria

Examples of calendar spread analysis, valuations, payout diagrams