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Large Option Delta Volume Trade Screener

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As with all investments, your capital is at risk

Large Option Delta Volume Trades

Understanding Options Delta

Converting Options Volume To Delta Volume

Aggregating Trade Sequence

Identifying Large Delta Trades

Significance

Screening and Actual Examples

Understanding Options Delta

The delta of an options measures the options price sensitivity to a \$1 move in the underlying stock price.

Traders often use delta to manage and mitigate position risk. Traders can hedge delta exposure by trading the underlying stock to offset the directional risk.

Converting Options Volume To Delta Volume

We can take a particular trade and multiply the volume of that trade by the options delta to get the total delta volume of the transaction.

Ex: If a Call Option Trades 20 contracts and the delta is .50, the total delta of the trade is 1000.

To hedge the immediate directional risk, the trader would buy/sell 1000 shares of the underlying stock

Aggregating Trade Sequence

Often times a trade maybe broken up (on the trade tape) by the way it is executed. For example, it can be executed on multiple exchanges, against numerous limit orders etc...

To attempt to reconstruct the original order size, we can use the data and information on the trade tape to aggregate related trades and infer the volume.

Why do we want to aggregate the trades?

So we can spot individual orders that imply a high delta volume

Identifying Large Delta Volume Trades

Not all stocks are the same.

A large delta volume for some stocks are considered small for others. The time of day and stock trade volume can also make a difference.

How can we identify the large trades?

We can use historical benchmarks, typical volumes, relative values (options delta vs stock volume) to start filtering out the high delta volume burst trades.

Significance

What can the large delta volume trades help us learn?

1. Significance Of Options Trading

We can compare the significance of options in the overall stock volume

2. Liquidity

Helps us understand and measure the market liquidity (volume and price execution quality)

3. Price Discovery

Helps us learn and understand price discovery process of options values

Significance

4. Options Impact On Stock Action

Are traders hedging? Do the trades have an immediate impact on the stock? Is there a lag impact?

5. Trader Positioning

What type of positions are traders establishing? Compare to OI.

6. Anticipate Order Flow

Learn typical order flow, traders positioning and anticipate order flow (rolls, need to close-out, typical behaviour etc...)

Screening

We will start with a large delta volume trade screener to identify trades.

Analyze trades in more detail.