



The SPX Options Visualizer

A guide by Markets & Mayhem

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- THIS BRIEF STATEMENT CANNOT DISCLOSE ALL THE RISKS AND OTHER ASPECTS OF FUTURES MARKETS. YOU SHOULD CONSULT WITH YOUR FINANCIAL ADVISOR FOR DETAILED INFORMATION.

Introduction

- The SPX Options Visualizer provides unique insights into the positioning and flows driving market price discovery in the S&P 500 e-mini futures contract.
- In the last several years, options have become a driving force, changing how markets trade. In particular, that's been true with the S&P 500 with the rise of ODTE options and total notional daily flows of about \$1.2T across all expirations. In essence, the tail now wags the dog as we see options trading notional values and volumes overwhelming that of futures.
- Markets and Mayhem created this tool specifically with the idea of creating a lens into SPX options positioning, or gamma exposure, the model of where dealers may have positioning as well as the prevailing volume flows of the two most active call and put strikes trading.
- It can be especially useful when you are able to identify convergences between large levels of resting liquidity (or open limit orders) and important areas of options activity and positioning, providing increased confidence that these are levels that are important to watch closely.




Why do SPX options matter?


Market makers hedge a lot of their SPX exposure using the S&P 500 futures market



As of today, S&P 500 index options trade about \$1.2 trillion in notional every day



Of that, close to half is trading options that expire that same day



As a result, SPX options have become a much more influential force in intraday price discovery

What does this data feed do?

- The SPX Options Visualizer provides an easy to use graphical display of where options positioning and flows are occurring in near-time
- It analyzes about 10,000 options across the S&P 500 options chain to determine the largest areas of gross and net gamma exposure, the gamma flip level, volatility trigger, and the four most call and put active strikes
- This can help traders to identify key levels with greater confidence
- For example, on a trend day where there is a 20-minute opening range breakout to the upside, targeting the most active call strikes can be a helpful compass. Particularly if there is convergence between those strikes and resting liquidity

Bookmap installation instructions

Once you have purchased the SPX Options Visualizer you can open Bookmap and head towards the rightmost columns on your screen:

- You can find your API key here: <https://app.nadles.com/consumer/subscriptions>
- Right click and select "Configure column"
- Click the + symbol on the left
- Set the Title to Options
- Scroll down the menu below and select Cloud notes (sixth from the bottom)
- In the window that pops up, enter the URL for your data provider. You may only use one data feed at a time per active subscription. Be sure to add your unique product key in the URL where YourKeyHere is currently written.

Bookmap: https://traderade.p.nadles.com/traderade_spx_visualizer_bm.csv?key=YourKeyHere

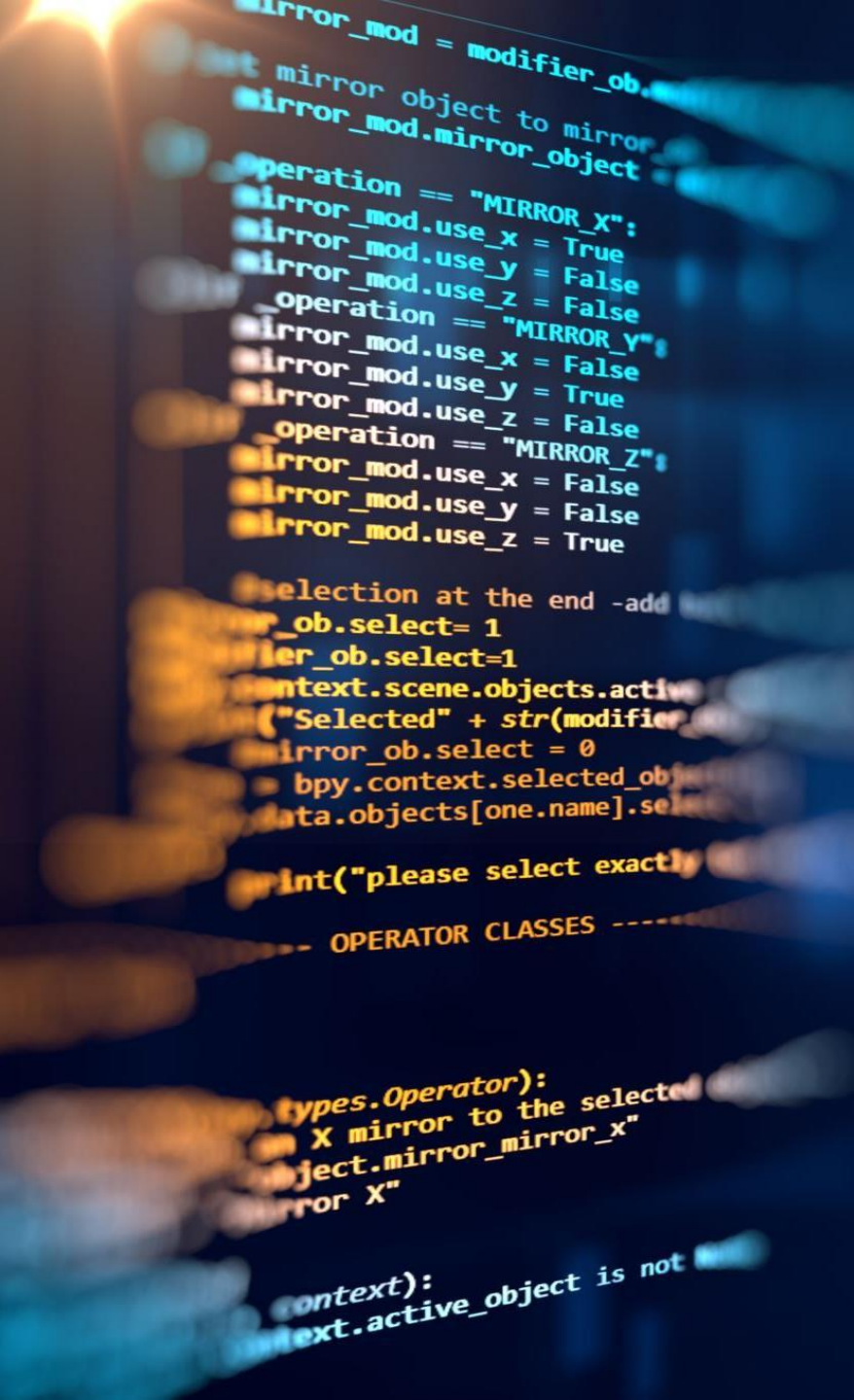
DXFeed: https://traderade.p.nadles.com/traderade_spx_visualizer_dx.csv?key=YourKeyHere

Rithmic: https://traderade.p.nadles.com/traderade_spx_visualizer.csv?key=YourKeyHere

- Set the Download interval to 1 (for updates once a minute)
- The Options column should populate within a minute or two on the right side. I recommend widening it so you can see the full labels
- Finally, click on File (on the far left) and Save Workspace

Note: You may have to set this up again each time the futures contract for ES is rotated. One subscription is required for each copy of Bookmap being utilized. Attempting to bypass this limitation may result in a ban.

If you have questions, reach out by emailing help@traderade.com.



MotiveWave installation instructions

Once you have purchased the SPX Options Visualizer you can open MotiveWave and add a new Cloud Levels study to your chart.

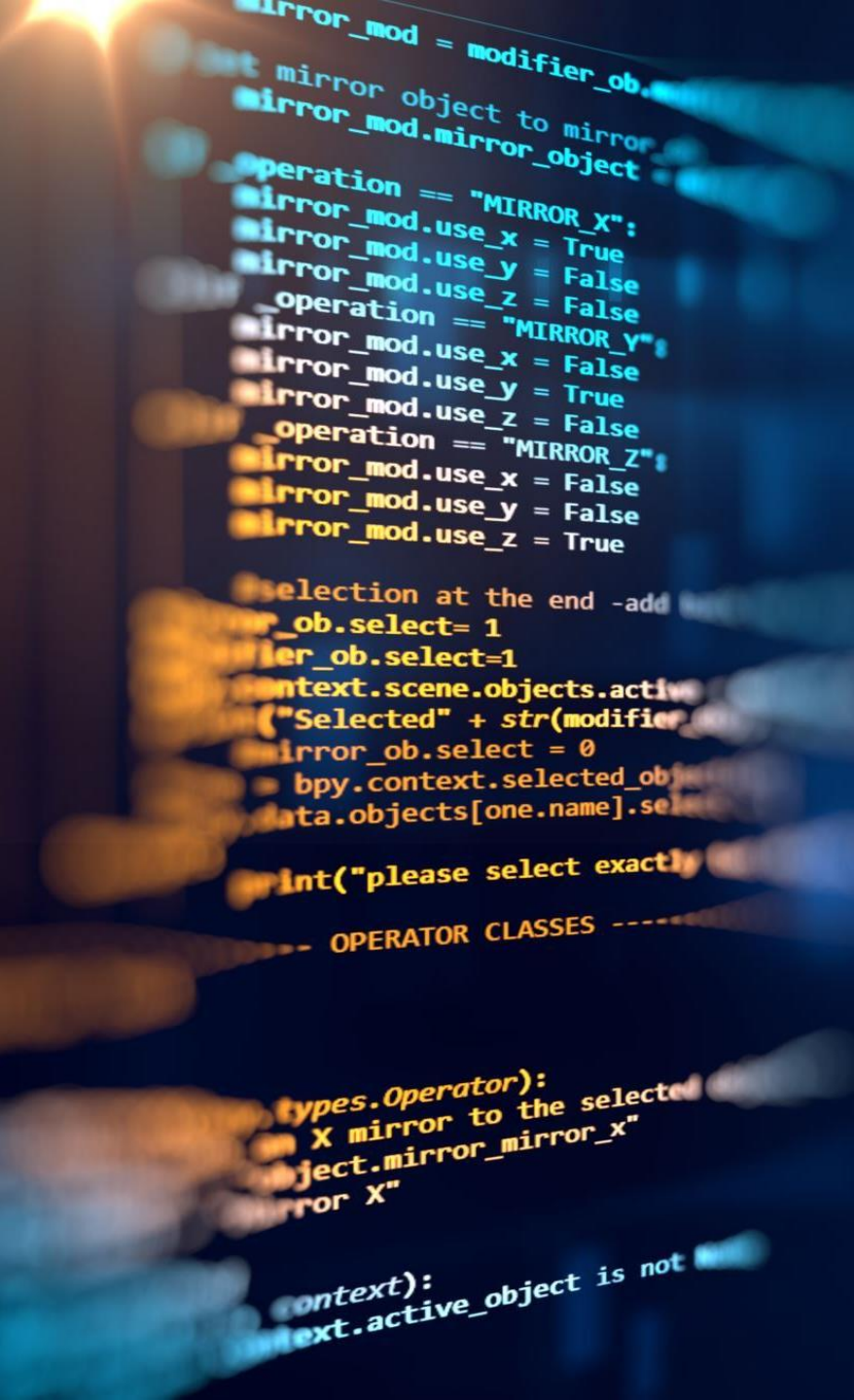
- You can find your API key here: <https://app.nadles.com/consumer/subscriptions>
- Right click and select "Add Study"
- Then select "Overlays"
- Choose "Cloud Levels"
- Click on the "Select" box to the right of "Source:"
- In the window that pops up, select the "Web Address:" field. Enter the URL below and include your unique product key in the URL where YourKeyHere is currently written.

Cloud Levels URL: https://traderade.p.nadles.com/traderade_spx_visualizer_mw.csv?key=YourKeyHere

- Set the "Update Interval to 1 (for updates once a minute)
- Click the check box under "Suppress Band Prices"
- Customize the appearance of the SPX Options Visualizer in MotiveWave by choosing the Text Align, Opacity, and Font.

Note: You may have to set this up again each time the futures contract for ES is rotated. One subscription is required for each copy of MotiveWave being utilized. Attempting to bypass this limitation may result in a ban.

If you have questions, reach out by emailing help@traderade.com.



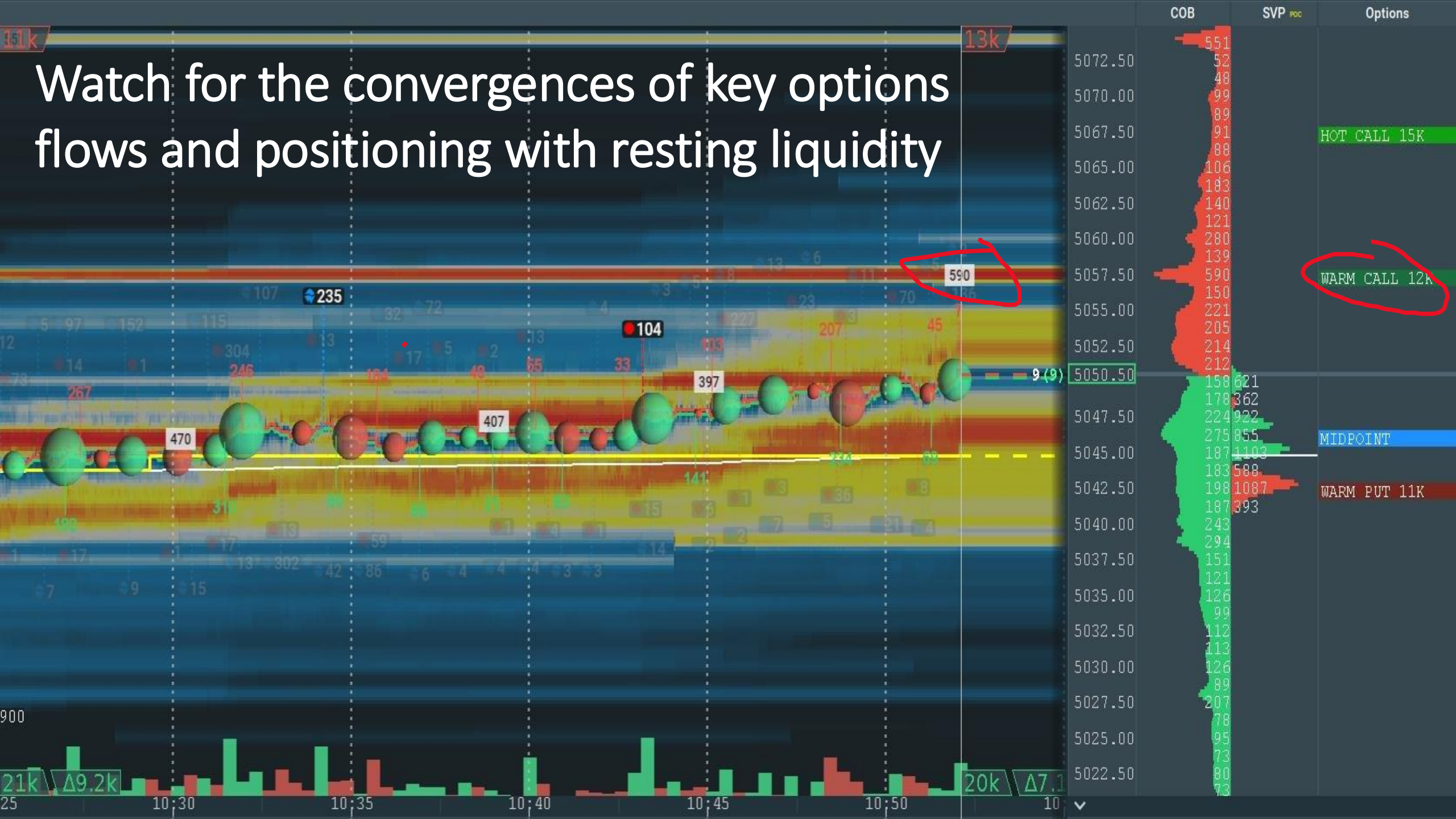
How can I use this data for my trading?

Whether you are a day trader or a swing trader, knowing key levels of options positioning and flow can help you to identify where price may be heading

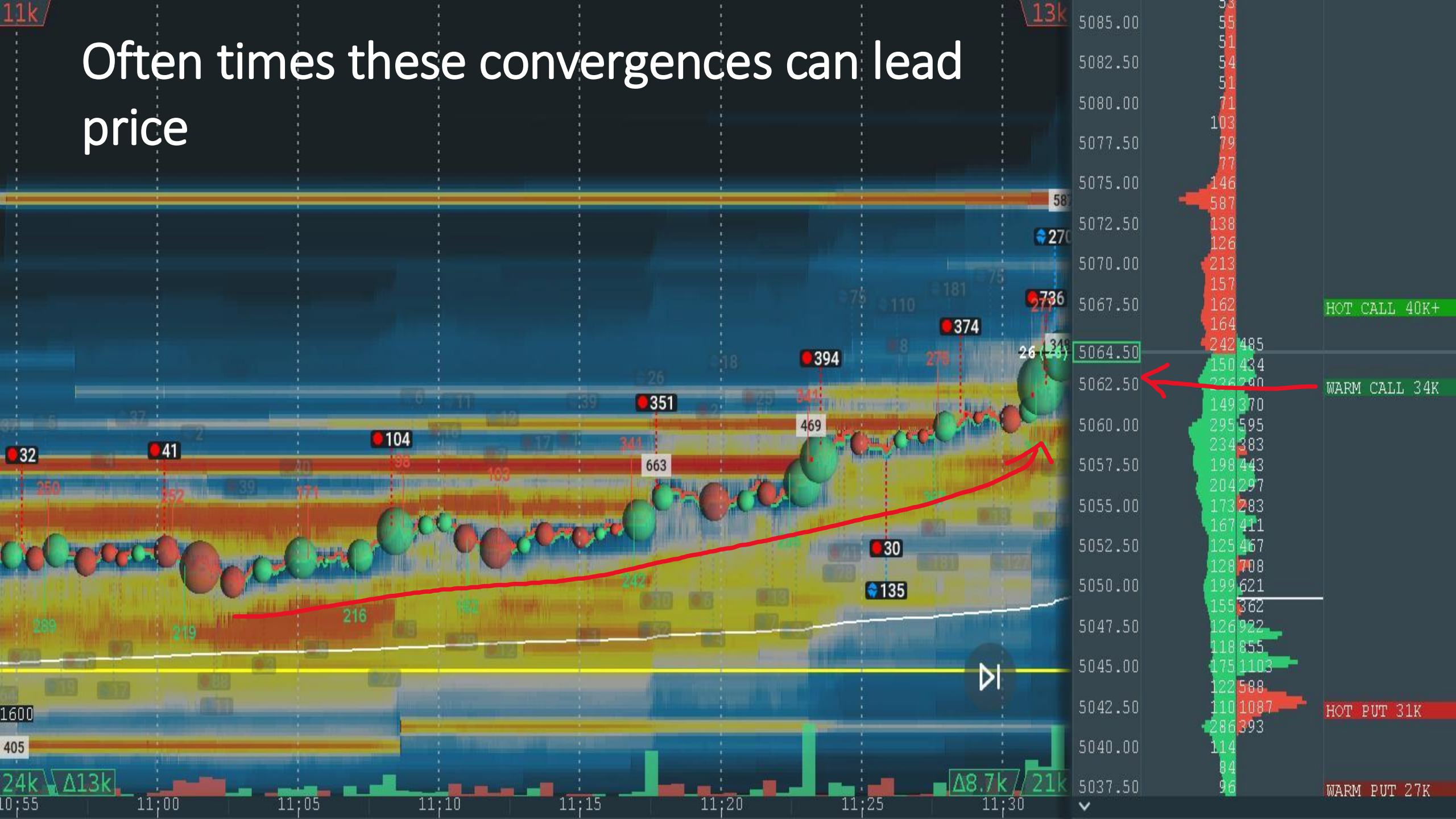
This can allow one to better plan their risk management, entries and exits

Having a better idea of what risk may look like based on options positioning and flows can also help us have a better idea as to what position sizing should look like, as we have an idea of what price ranges to potentially expect

Watch for the convergences of key options flows and positioning with resting liquidity



Often times these convergences can lead price



The information that's displayed

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- The two most active puts and calls - referred to as hot and warm, respectively; when there is + a next to the volume that is the most active strike and when there is a * next to the volume that is the most active strike and the put/call ratio is also favoring that side of the options chain
 - Put and call walls - the largest area of put and call gamma exposure within reasonable proximity to spot pricing, often acting as support or resistance
 - Volatility trigger - the largest area of gross gamma exposure within reasonable proximity below spot pricing in SPX, where if price breaks below volatility in the market often increases
 - Gamma flip - the level where the market switches into positive or negative gamma territory, changing dealer hedging flows
 - Key levels - determined by next five largest levels of net gamma exposure, labeled in order); these levels often act like resistance
 - Gamma levels - calculated by the next five largest levels of gross gamma exposure, labeled in order); these levels often act like magnets for price, particularly when there is a large open order at or around the same level
 - Midpoint – when options are within relative balance on the most active puts and calls, the midpoint appears to show where that exists between the two most active calls and puts; this is often an area where price may find balance especially if there is convergence with intraday VWAP and/or the point of control

Other educational resources

- <https://www.traderade.com/post/trading-with-bookmap-coalescence-as-a-compass>
- <https://www.traderade.com/post/quantifying-the-impact-of-0dte-trading-in-spx>
- <https://www.traderade.com/post/a-new-wrinkle-in-the-spx-0dte-saga>
- <https://www.traderade.com/post/spx-gamma-exposure-dealer-positioning-and-price-impacts>
- <https://www.traderade.com/post/trading-options-expiration-isn-t-awesome>
- <https://www.traderade.com/post/the-basics-of-options>
- <https://www.traderade.com/post/timing-charm-flows-in-the-options-market>



Questions? Feedback?

Thank you for purchasing the SPX Options Visualizer data feed. I built it with the goal of helping other traders, because I found it quite valuable for my own trading and for that of our [Traderade](#) members on our [Discord](#) server.

If you have any questions, feedback or suggestions let me know. My hope is that you're happy with what I've built and that you find it useful for your trading. Either way I'd love to hear from you.

You can reach out directly to me by writing to mayhem@traderade.com.

