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# Spurs wild stock swings

Stock market selloff leaves dealers perilously close to peak short gamma positioning



By Helen Bartholomew

[X](#) @HelenBarthol

10 Mar 2025

Options dealers have seen their long gamma positioning evaporate since the S&P 500 began its near 9% slide three weeks ago, setting the stage for more violent intraday swings in the benchmark index.

Stocks have tumbled on fears that US President Donald Trump's to-ing and fro-ing on tariffs could trigger a global trade war and tip the US into a recession. The moves have been choppy, with violent intraday lurches in both directions – which some see as a sign that dealers are trading with the market to hedge their options books.

“Dealers are very short gamma, and the moves have been violently enhanced because of the gamma profile,” says Don Dale, senior derivatives and financial markets risk specialist at consultancy Curved Edge Strategies.

Intraday swings were particularly pronounced last week. On March 7, the S&P closed up less than 1% after trading in a near 100-point range, clocking up a round trip of almost 3% for the day. March 4 was similar, with the index almost unchanged at the close despite intraday peaks and troughs totalling more than 4%.

Opinions are divided on precisely how dealers’ gamma positioning has changed since February 19, when the S&P hit an all-time high of 6,144. The benchmark is down almost 9% since then, while the Vix – Cboe’s index of implied volatility – has surged nearly 80%.

Analysts at UBS say dealer gamma positioning last week was broadly flat to positive at the start of each trading day but turned negative in the afternoons – largely due to client flows into zero-day options – before snapping back at the close.

Others argue that even if end-of-day positioning is yet to turn negative, dealer hedging activity is no longer having a dampening effect on intraday volatility.

“The length of the long gamma definitely decreased a lot. I wouldn’t say it’s already short, but it’s definitely much further away than it was and close to flat,” says a portfolio manager at a large European asset manager. “This contributes to the fact it’s easier for the market to move one way and another. The pressure on both sides to compress volatility is much smaller, so you’re seeing much more of these moves where the market is free to move.”

Gamma is one of the more complex structural factors in markets. The term refers to the sensitivity of an option’s delta to changes

in the underlying.

Dealers build up gamma exposure when they write options, the values of which change more violently as the spot price of the underlying moves closer to the option's strike.

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**We're going to stay in this negative posture of dealer positioning and gamma as long as [the S&P 500 is] below 5,950**

Don Dale, Curved Edge Strategies

When they are short gamma, in a selloff dealers are forced to pare their hedges – selling the underlying as prices fall. The deeper the drop, the harder they have to sell.

“If news breaks that would traditionally move the market down 1%, this negative gamma positioning might move it down 1.5% or 2% because of the way dealers have to add selling to their underlying positions to neutralise their exposure,” says Dale. “It doesn't create the direction. It just helps exacerbate the magnitude and speed of the move.”

Positive gamma exposures have the opposite effect, dampening volatility. Dealers that are long gamma add to their hedges when prices fall, meaning they buy assets.

[Flat gamma](#) can also exacerbate volatility – but for different reasons. It indicates that dealers are holding more balanced books, probably because they are nervous about the market outlook. Dealers may also hike the price of options – making protection more expensive for investors – so as to write fewer options and reduce the need to hedge. When gamma is flat, markets may jump around more because investors are less well hedged and because the absence of dealer hedging reduces market liquidity.

Estimating dealers' gamma positioning is a complex undertaking and the results can vary depending on the data and assumptions

used to classify trades and the maturities feeding into the analysis.

Dealers have been [long gamma](#) for much of the past year – with intraday positioning hitting a record \$50 billion in January, according to UBS. This was supported by the surge in zero-day options trading and the popularity of covered call exchange-traded funds (ETFs), which sold billions of dollars of out-of-the-money options – typically 2% to 5% above spot – to dealers.

This long gamma exposure has all but evaporated as markets have headed south in recent weeks, leaving dealers flat to short gamma.

UBS data suggests dealers will hit peak short gamma positioning if the S&P 500 sinks below 5,000, though others put this closer to 5,500 – near the intraday low on March 10. Around those levels, they suggest markets could enter freefall.

“There are quite a few different types of participants that will potentially be on the selling side, which could easily lead to even larger moves,” says the portfolio manager at the large European asset manager.

Some in the market are nervously waiting to see if volatility target funds will deleverage their portfolios in response to the jump in realised volatility. These investors typically look at 20-day realised volatility on a balanced portfolio. Realised volatility on the S&P 500 was around 15 before the selloff on March 10. These investors have built up large buffers since the start of the year and have yet to start selling, but a jump in realised volatility to around 20 is expected to force some de-risking.

Commodity trading advisors, which are sensitive to volatility and have already reduced overweight positions, could also de-risk substantially if the market continues to slide, eventually moving into short positions. Other hedge funds could also cut their leverage if volatility persists.

Dealer gamma positioning is dynamic and will reset around lower levels once investors restrike their options – but that is unlikely to happen for at least a couple of weeks.

“It takes a long time for those ETFs to reset and if we were to stay here for several months, with nothing changing in terms of the participation in those structured products and ETFs, eventually that negative gamma would go away and they move to a long gamma position. But for now, as you move through that maturity cycle, that gamma will run off,” says Dale.

“We’re going to stay in this negative posture of dealer positioning and gamma as long as [the S&P 500 is] below 5,950. It should stay here for another week or two and then diminish, but it’s not going anywhere right now.”

*Editing by Kris Devasabai*

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