

We share the Weekly Gamma Bands Update by Viking Analytics. The report uses options gamma to help you better manage risk and your equity allocations.

## Gamma Band Update

The S&P 500 (SPX) continued to rise to all-time highs last week, and our Gamma Band model entered this week with a full allocation to the SPX. This model<sup>[1]</sup> is a simplified trend following model that is designed to show the effectiveness of tracking various ?gamma? levels. When the daily price closes below Gamma Flip level (currently near 4,400), the model will reduce exposure to avoid price volatility and sell-off risk. If the market closes below what we call the ?lower gamma level? (currently near 4,205), the model will reduce the SPX allocation to zero.

With the August monthly options expiration on deck for this Friday, we may be looking for an options expiration ?pin? near 4,500 as long as the price remains near the current levels above the gamma flip.

The main premise of this model is to maintain high allocations to stocks when risk and corresponding volatility are expected to be low. For investors who have been conditioned to ?buy low and sell high,? it is counter-intuitive to increase allocations when the market rises, but this approach has shown to increase risk-adjusted returns in the back-test.

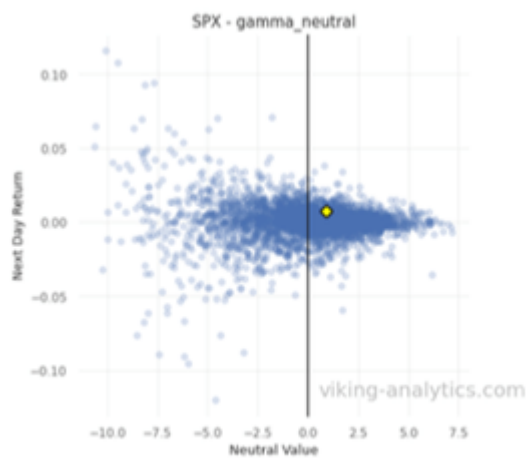


The Gamma Band model is one of several indicators that we publish daily in our SPX Report (click [here](#) for a sample report). With stocks climbing to historically high valuations, risk management tools have become more important than ever to manage the next big drawdown.

Please visit our [website](#) to learn more about our daily reports and ETF algorithms.

## The Gamma Flip - Background

Many market analysts have noted that [daily volatility in the S&P 500 will change](#) when the value of the SPX moves from one gamma regime to another. Some analysts call this level the "gamma flip." The scatterplot below shows how price volatility (on the y-axis) is increasingly lower as the value of SPX rises higher above the Gamma Neutral level (on the right side of the chart). When the value of the S&P closes lower than Gamma Neutral (to the left of the chart), volatility increases.



## Gamma Band Model ? Background

The purpose of the Gamma Band model is to show how tail risk can be reduced by following a few simple rules. The daily Gamma Band model has improved risk-adjusted returns by over 60% since 2007. The graph below demonstrates how this approach can limit drawdowns while maintaining good returns. A quick video introduction of the Gamma Band model can be seen by following [this link](#).

Excess Returns vs S&P 500 - Number of Days												
	10	20	30	40	50	60	70	80	90	120	180	240
XLP	2.1%	2.4%	2.1%	-1.3%	2.0%	3.0%	2.3%	-1.4%	-2.3%	-7.3%	-14.5%	-15.4%
XLU	1.3%	-0.8%	0.6%	-1.2%	0.1%	3.6%	-0.7%	-6.3%	-6.0%	-6.8%	-12.6%	-20.1%
XLV	1.8%	0.9%	4.5%	1.4%	3.1%	1.2%	0.3%	-4.1%	-4.2%	-1.8%	-5.4%	-11.1%
XLRE	1.7%	0.8%	4.2%	1.4%	3.3%	4.4%	4.8%	3.2%	6.2%	1.3%	-5.0%	-14.6%
XLB	0.0%	4.6%	7.0%	3.6%	4.4%	8.3%	10.5%	10.1%	4.2%	8.1%	8.5%	19.3%
XLI	-1.0%	1.3%	1.1%	-0.6%	0.6%	4.0%	7.8%	8.7%	4.9%	2.7%	7.8%	13.6%
XLC	0.1%	1.2%	-0.7%	1.8%	-2.1%	-1.4%	-0.1%	3.1%	7.6%	2.9%	4.7%	4.3%
XLFX	0.1%	5.5%	4.9%	3.4%	1.6%	6.0%	12.3%	16.3%	9.7%	16.1%	26.3%	20.6%
XTN	-1.1%	0.6%	-1.1%	-2.8%	-4.5%	0.4%	8.8%	15.3%	10.1%	9.9%	22.7%	32.5%
XLK	0.1%	-3.7%	-4.3%	-1.7%	-1.2%	-4.4%	-7.0%	-6.0%	-3.1%	-3.6%	-3.1%	-0.6%
XLE	-1.3%	9.8%	7.1%	-1.7%	-8.2%	-1.1%	10.8%	20.2%	11.2%	15.8%	35.3%	-3.0%
XLY	-4.6%	-6.3%	-1.9%	-4.0%	1.6%	-10.2%	-8.3%	-13.6%	-11.1%	-6.2%	-10.3%	-0.7%

## Disclaimer

This is for informational purposes only and is not trading advice. The information contained in this article is subject to our [full disclaimer](#) on our website.

[1] The Gamma Band model in our SPX Market Report adjusts position size DAILY based upon the daily closing levels of SPX value and calculated Gamma Neutral. The Weekly Gamma Band model is shown for illustrative purposes only.

## Authors

Erik Lytikainen, the founder of Viking Analytics, has over twenty-five years of experience as a financial analyst, entrepreneur, business developer, and commodity trader. Erik holds an MBA from the University of Maryland and a BS in Mechanical Engineering from Virginia Tech.

Rob McBride has 15+ years of experience in the systematic investment space and is a former Managing Director at a multi-billion dollar hedge fund. He has deep experience with market data, software and model building in financial markets. Rob has a M.S. in Computer Science from the South Dakota School of Mines and Technology.