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 10/12/20

- Gamma Neutral in the S&P 500 (SPX) acted as apparent support and resistance in recent weeks, and the SPX launched higher to end the week last week. Our Gamma Band model has had SPX exposure at 100% for four of the past five days.
- The upper band is currently at 3,511, and while this level may occasionally be seen to act as resistance, the back-test does not suggest reducing exposure when SPX hits the upper band level.
- Our binary Smart Money Indicator continues to have a full allocation, and this is discussed in greater detail below.
- SPX skew, which measures the relative cost of puts to calls, presents a neutral environment at the moment.
- Our Thor Shield daily allocation model continues to have SPY at 100% as of Friday. ThorShield is a fast, daily signal based upon daily put and call volume. Samples of all of our SPX and ThorShield daily reports can be downloaded from our website.



Date	Close	Upper Band	Gamma Neutral	Lower Band	Model Allocation
09-25-20	3,298.46	3,493	3,346	3,101	30%
10-05-20	3,348.42	3,487	3,355	3,135	50%
10-12-20	3,477.14	3,511	3,392	3,194	100%

Smart Money Residual Index

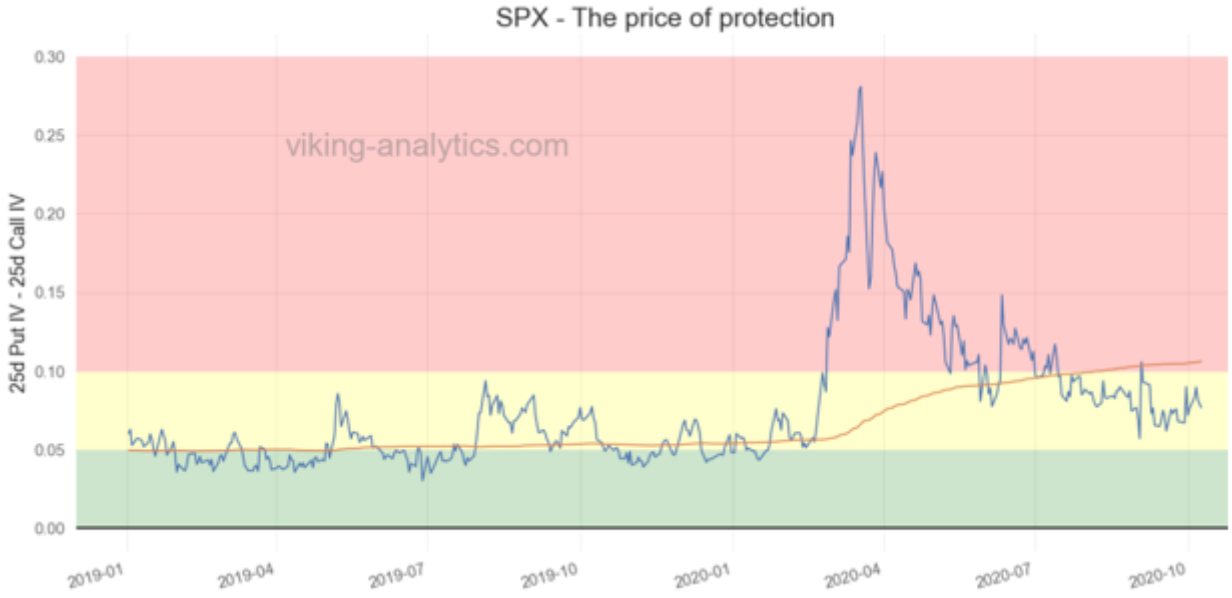
This indicator compares ?smart money? options buying to ?hot money? options buying. Generally, smart money will purchase options to insure stable returns over a longer-term. Smart money has in-depth knowledge and data in support of their options activity. In contrast, ?Hot money? acts based on speculation, seeking a large payoff.

At the moment, hot money is more cautious than smart money, and the back-test supports a long position during this time. When the Residual Sentiment Index in the second graph turns to red, then this model will cut all equity exposure to zero. When the market is in the red regime below, the market has an overall negative return.



SPX Skew ? the Price of Protection

In evaluating equity market risk, we also consider the cost of buying puts versus the cost of buying calls. When puts command a larger-than-usual premium to calls, then the market will have higher volatility (in the red zone below), and this might be a signal to reduce equity exposure. We consider skew to be neither bullish nor bearish at the moment.



Gamma Band Background

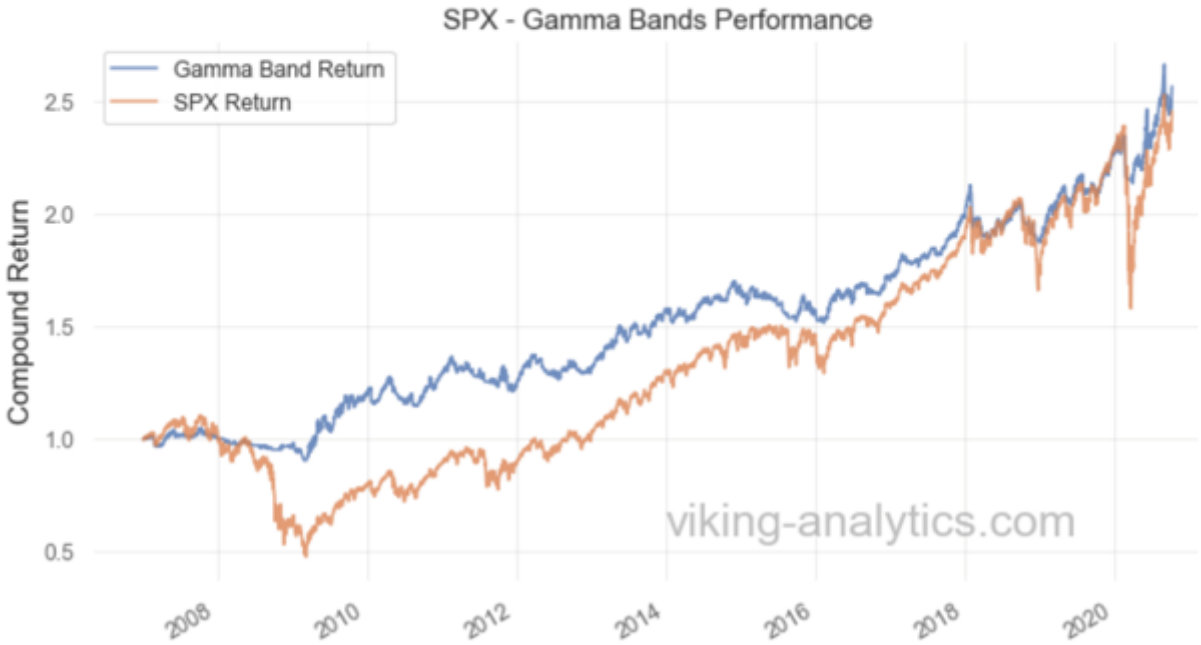
Market participants are increasingly aware of how the options markets can affect the equity markets in a way that can be viewed as the ?tail wagging the dog.?

We created a Gamma Band indicator to demonstrate the effectiveness of the Gamma Neutral level in reducing equity tail risk. In our model, we compare the daily close of the SPX to the Gamma Neutral and Lower band levels to adjust our equity exposure allocation from 0% to 100%.

We back-tested this strategy from 2007 to the present and discovered a 77% increase in risk-adjusted returns (shown below). The Gamma Band model is a relatively slow but reliable signal if one?s goal is to increase risk-adjusted returns. We also publish a faster, daily signal in a portfolio model which we call Thor?s Shield. Thor Shield has a 20-year Sharpe of 1.5 and a rolling 1-year Sharpe of over 3.4. Free samples of our daily SPX report and Thor?s Shield model can be downloaded from our website.

	sharpe	kurtosis	annual_vol
Gamma Band Return	0.74	8.32	0.10
SPX Return	0.42	12.70	0.21

* Gamma Bands improve backtested Sharpe by: 76.6%



Authors

Viking Analytics is a quantitative research firm that creates tools to navigate complex markets. If you would like to learn more, please visit our website, or download a complimentary report.

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 B.S. 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. Furthermore, 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.