

## Gamma Radiation, Gamma Reversals, and Gold

I grew up watching Bill Bixby playing The Incredible Hulk on TV. Readers will be familiar with the general story ? mild-mannered scientist Bruce Banner is exposed to gamma radiation, which transforms his molecular structure. The exposure causes Bruce Banner to turn into the radiation-green colored Hulk when he experiences extreme anger.

Bruce Banner has a ?tell? for when his anger reached the point of no return and the Hulk would appear.

His irises turn white.?



When Banner?s irises turn white, the Hulk is on his way to restore justice and create order. In this article, I discuss a market ?tell? to alerts us as to when a market is likely to shift from chaos to order.

### Gamma in the Financial Markets

Gamma not only defines the type of radiation that transformed Banner into the Hulk, but it is widely used in science and mathematics. In the financial world, gamma is one of the ?option greeks,? which help to measure the price, risk, and time dimension of options.

Gamma in the financial markets has had increasing attention lately. The [Wall Street Journal](#) and [Bloomberg](#) have recently published articles which discuss how this ?obscure concept? has moved

markets over the past year. Bloomberg, for instance, claims that the rapid fall in oil prices in the 3<sup>rd</sup> quarter of 2018 was due to ?gamma.? In other words, Bloomberg says that gamma was the ?tell? that predicted a more than \$35/bbl decline in oil prices.

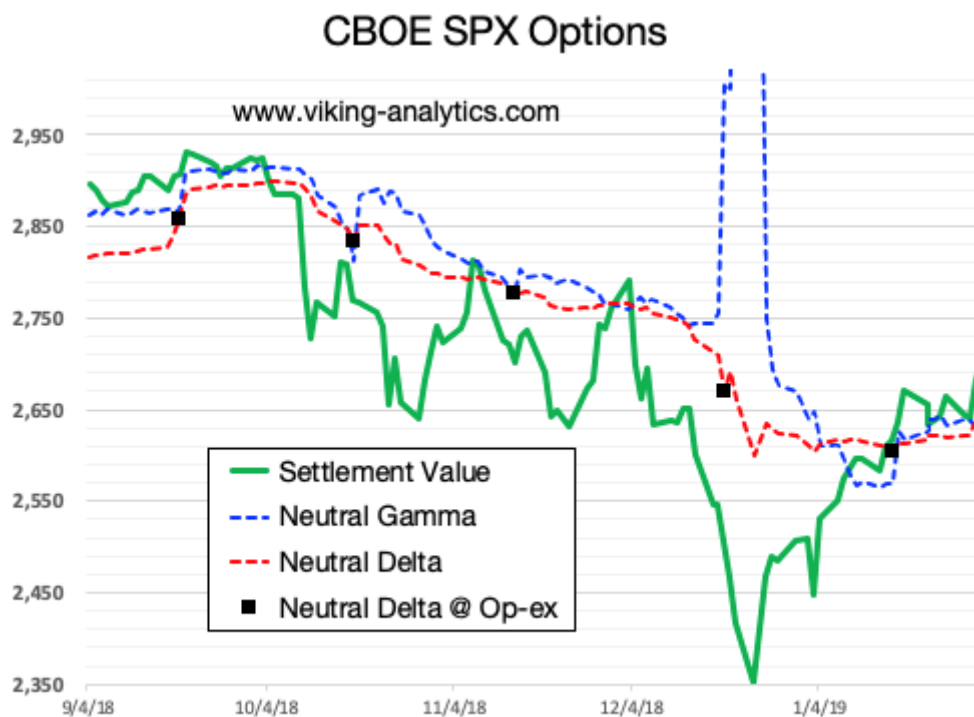
My analysis has demonstrated that gamma data has been a ?tell? for many major price pivots over the past year, including the stock markets, energy markets, and grain markets.

First, let?s better define my ?tell.?

## Gamma Reversal

A **Gamma Reversal** denotes the occasion when a spike in Neutral Gamma coincides with a nearby monthly pivot level. Over the past year, there have been six significant Gamma Reversals, which I highlight below.

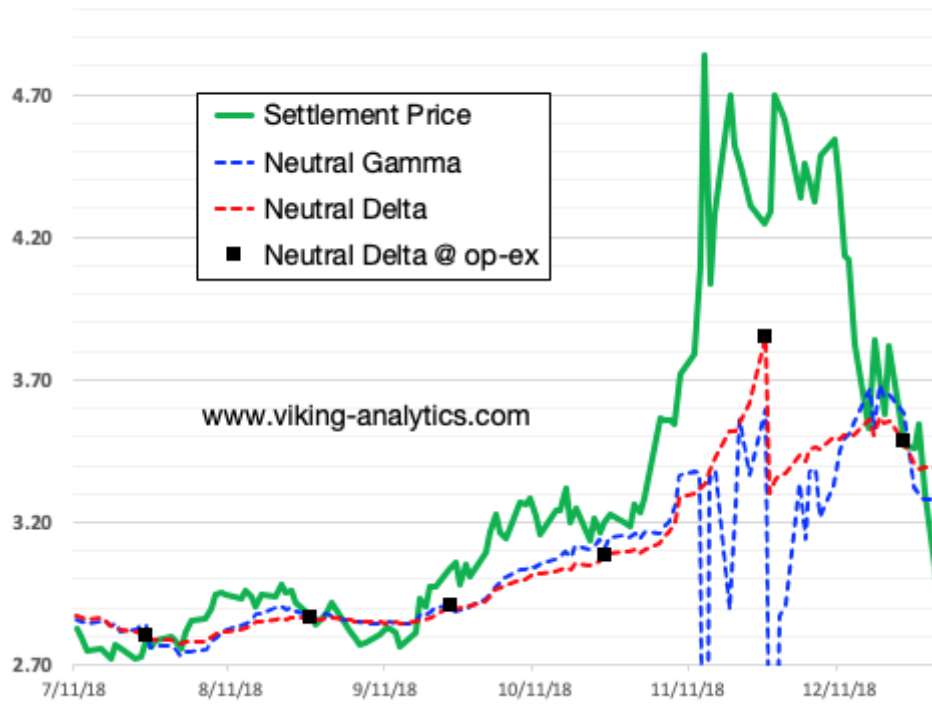
The most notable and memorable Gamma Reversal occurred in the S&P index last December 2018. The chart below shows the price decline of the SPX from September through late December. At the market troughs, in the days leading up to Christmas, Neutral Gamma (blue) spiked off the chart, corresponding with a major pivot level.



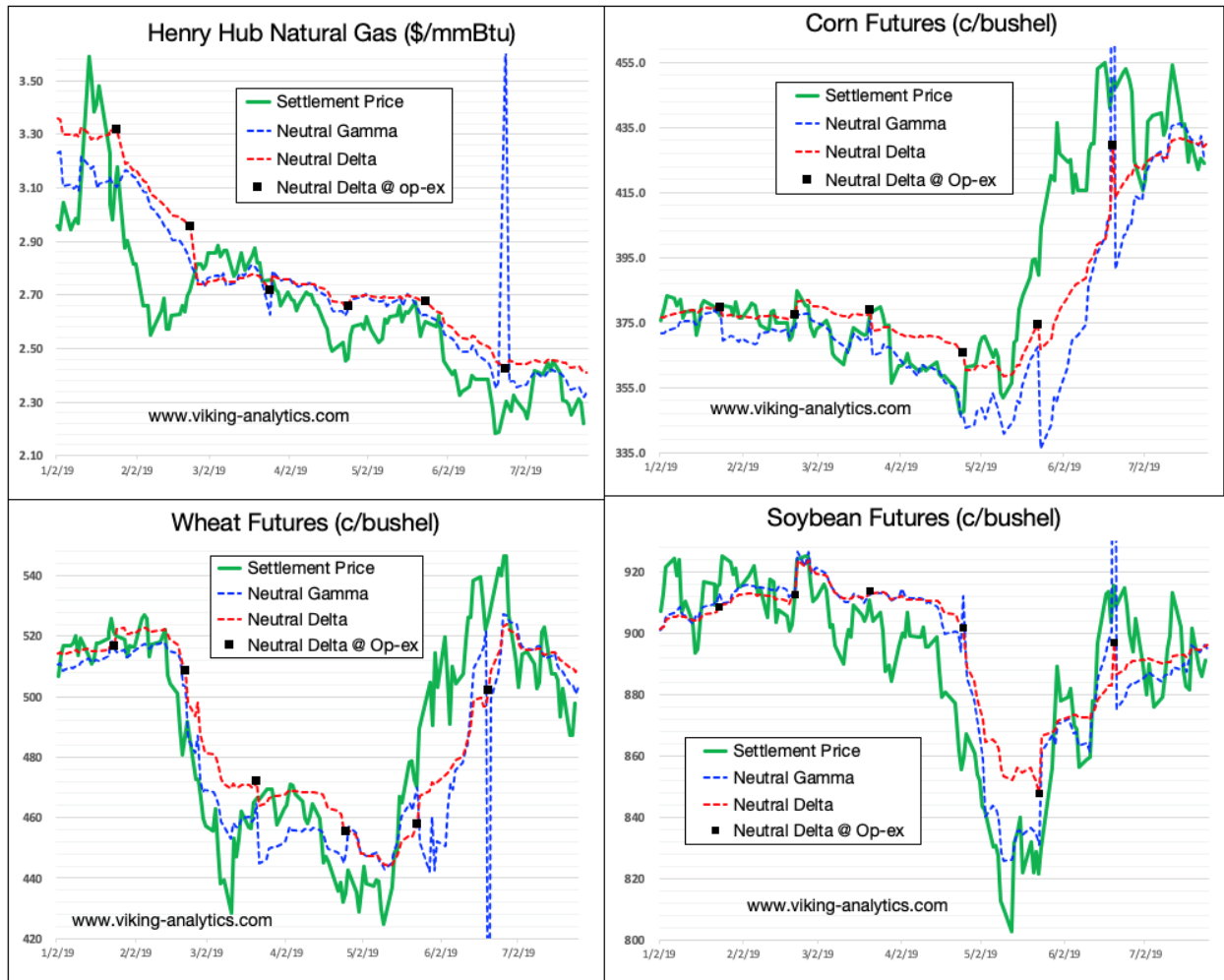
This Gamma Reversal was a strong signal that sellers exhausted their ammunition. The price quickly reversed higher after this event.

The natural gas market in late 2018 had a similar scenario. In November and again in December, natural gas saw Neutral Gamma spike out of range. In both cases, the spikes corresponded with nearby reversal pivots. Once again, we could say that the buyers became exhausted, and the price declined.

## Henry Hub Natural Gas (\$/mmBtu)



In June 2018, there were four cases of what I would call a Gamma Reversal ? in corn, soybeans, wheat, and natural gas. In each case, Neutral Gamma spiked out of range and a nearby price pivot occurred.



## Why Does This Happen?

Here is an explanation of why I believe that gamma signals can coincide with nearby price pivot(s).

Neutral Gamma is defined as the price level where market risk is neutral for the entire options market. This is to say that market participants are well hedged, and the options market is in balance with the underlying market. In aggregate, traders are not exposed to meaningful risk.

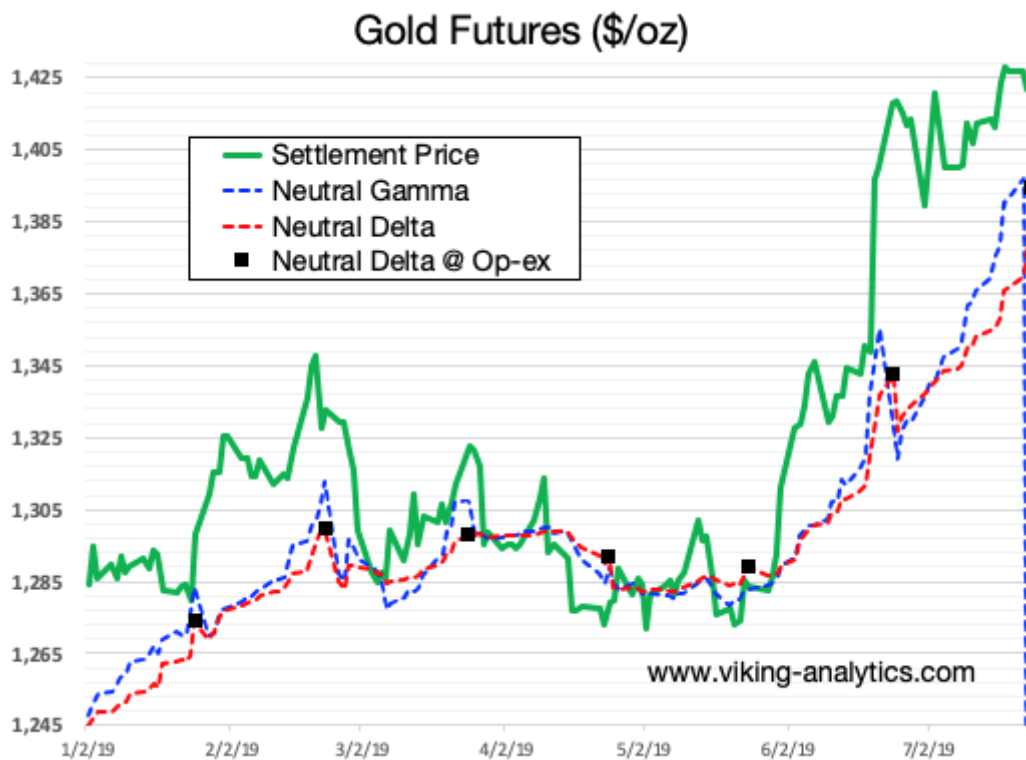
When Neutral Gamma spikes ?off the charts,? it means that the options market is out of synch with the underlying market. Such spikes tell us that option buyers and sellers are experiencing extreme risk and emotions ? an acute kind of fear and greed. In such times, most active managers are feverishly working to mitigate risk. Such events usually end up with greatly rewarding winners and punishing losers.

When gamma spikes, the Bruce Banner in traders becomes agitated and their irises turn white.

## Gold Gamma Spike

On July 23<sup>rd</sup>, our data recorded an out-of-range spike in Neutral Gamma in the gold market. With this spike in gamma, I am looking for two primary possibilities: 1) the potential for a short squeeze above \$1,450, the peak of which could become an upside price pivot, or 2) the recent closing high for gold could be an upside pivot which marks the beginning of a pull-back or a reversal.

The chart below shows the relationship between price, Neutral Gamma, and Neutral Delta since the beginning of 2019. Option expiration in COMEX gold options was Thursday, July 25<sup>th</sup>.



## Final Thoughts

I have outlined and defined a few terms here, all of which are worthy of further research and review. I have shown several instances where Neutral Gamma spikes out of range and ultimately marks the top or bottom of trends. Since gamma is a measure of financial risk, it can also be viewed as an indicator of human emotion. Spikes in gamma also result in spikes in human emotion, and the spikes in human emotion can lead to exhaustion, capitulation, and the creation of nearby tops and bottoms.

This market ?tell? which is followed by so few investors can provide great entry and exit points. If nothing else they heighten our senses to the whites of traders? irises and the growing possibility for a burst of volatility.

If you would like to learn more about these topics or my other research, please visit my [website](#).

Disclaimer

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