In the aftermath of the U.S. elections bond markets have been in a panic. Yields on U.S. 10 Year Treasury Bonds surged by the most in over half a century and global sovereign bond price indices have experienced record losses. It is apparent that this has taken many 'market professionals' by surprise.

The unavoidable conclusion is that they are simply incapable of measuring market risk-the likelihood of such moves was quite apparent in analysis with an effective tail model.

#### **Global Bond Market Turmoil**

On 9 November, the yield on U.S. 10 Year Bonds rose from 1.857% to 2.057%—an increase of 10.8% in a single day. This was the largest one day percentage increase in yield in a history going back to February 1962.

By 14 November, the largest 5-day surge in history was recorded as the yield increased by 27%.

By 18 November, the 10-day increase in yield was more than 30%. Again, this was the largest 10-day increase in the data history.

Sovereign bond indices globally showed large price declines. The S&P/Citigroup International Treasury Bond Ex-U.S. Index had its second worst 5-day loss and its worst 10-day loss in the past 10 years.

# Primitive Risk Measurement Means Being Caught By Surprise

There is no shortage of data on sovereign bond yields. Effective statistical analysis of this data should produce good estimates of the likelihood and severity of large moves.

Yet the surge in yields since the U.S. election has taken 'market professionals' by surprise.

The only conclusion one can draw is that they are not capable of assessing the market risk in sovereign bonds.

## VaR Without ES Is Just an Exercise in Box-Ticking

Regulatory prescription of Value at Risk as a risk measurement tool, in the absence of Expected Shortfall, is simply ridiculous. Measuring and reporting VaR by itself is nothing but a box-ticking exercise.

And absent accurate means of measuring VaR and ES, managers and investors simply have to take what the market dishes up, as they did in the bond markets last week.

### Our Analysis of Bond Market Data Made the Risks Apparent

With over 50 years of daily history available on U.S. 10 Year Bond yields, it is easy to assess the effectiveness of tail models for daily and multi-day changes.

Omega Metrics® 99% Value at Risk (VaR) and Expected Shortfall (ES) have been outstandingly accurate for these yields. This month's record jumps in yield were just run-of-the-mill 99% VaR breaches. None of them exceeded the ES.

Likewise in the 10 year history of the S&P/Citigroup Bond Index, what we have seen since the U.S. elections have been 99% VaR breaches but not ES breaches.

### A Breach of the 99% VaR Level Is Not An 'Extreme' Event

If you don't want unpleasant surprises, it is essential to be prepared for the possibility of market moves that can go against you with reasonable frequency.

With about 250 trading days in each year, a breach of the 99% VaR level should be expected every 5 months, on average. If those events take you by surprise, what is it that you're actually prepared for?

The 99% ES level is the *average* loss conditional on a breach of the 99% VaR. That's what you need to be prepared for because, over time, that's exactly what you'll experience if you stay in the market.

If you want to be able to stay in the market-any market-you need to be able to manage risk. If you can't measure it, you can't possibly hope to manage it efficiently.

Omega Metrics® tail models provided advance warning of the recent bout of bond market turmoil, just as they would have in all the previous episodes.

Once we have measured the risk, you can manage it.



#### **LEGAL NOTICE**

#### Please read this notice carefully:

The contents of this document are for illustrative and informational purposes only. No information in this document should be considered a solicitation or offer to buy or sell any financial instrument or to offer any investment advice or opinion as to the suitability of any security in any jurisdiction. All information is subject to change and correction due to market conditions and other factors. This document has been created without any regard to the specific investment needs and objectives of any party in any jurisdiction. Specific instruments are mentioned in this document but this should not be construed in any way as a recommendation to invest in them or in funds or other instruments based on them. They are used for informational purposes only. Omega Analysis Limited does not provide investment advice. Investors need to seek advice regarding suitability of investing in any securities or investment strategies. Any decisions made on the basis of information contained herein are at your sole discretion and should be made with your independent investment advisor.