White Paper – August 2022

Qi Vol Indicator

Summary

- Qi's Vol Indicator is an alternative fear gauge.
- It captures periods when financial markets (equities, bonds & currencies) have divorced themselves from macro fundamentals.
- Back-tests show it has a strong track record of pre-empting spikes in VIX &, as such, should be viewed a tool to help investors' risk management process.

Macro fundamentals are the ultimate driver of asset prices.

Even bottom-up analysis is exposed to macro. Earnings & multiples are, in raw terms, a function of economic growth, inflation, financial conditions, risk appetite plus management's ability to take advantage of the macro environment.

But markets move in cycles &, as regimes shift, the key drivers will also change. There are periods when macro doesn't dominate price action; when other factors will play a bigger role.

Earnings season is critical for single stock investors. Trend & momentum dynamics may drive CTA buying or selling. Positioning & sentiment can, for short periods, outweigh macro fundamentals. 2022 has reminded everyone of the power of geopolitical shocks.

During those periods it is common for macro model confidence to fall. In this White Paper we introduce the Qi Vol Indicator – a tool to help investors anticipate upticks in market volatility.

Background

Qi model confidence is a R-Squared measure. It captures 'the goodness of fit' between Qi's macro factors & the asset price in question.

Sharp falls in model confidence suggest a sudden decrease in macro's ability to explain the variance of an asset price.

It suggests other factors are driving price action; factors like positioning & sentiment which are typically more prone to volatility.

Therefore, sharp falls in Qi model confidence may herald a rise in market volatility.

Methodology

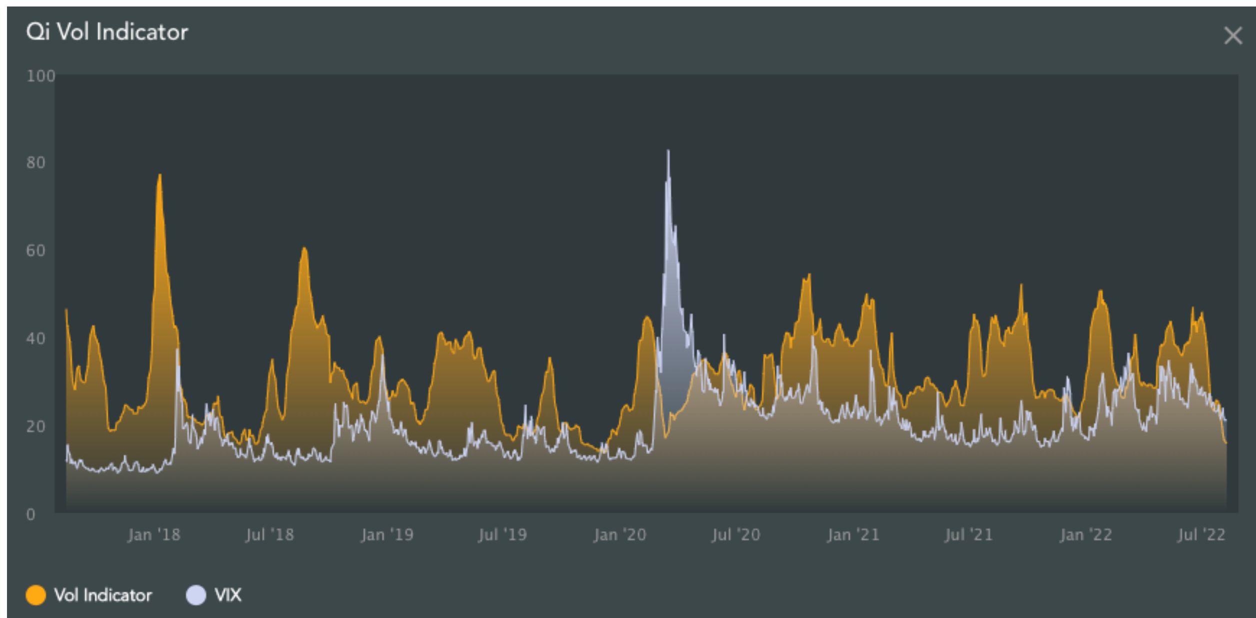
We created a Qi volatility index using 6 global benchmark instruments across asset classes – S&P500, Euro Stoxx 600, EURUSD, USDJPY & 10y yields in US & Europe.

If all 6 instruments had 100% model confidence – macro had perfect explanatory power – the index would be zero.

If all 6 had 0% model confidence – macro had no explanatory power whatsoever – the index would be at 100.

It was inverted this way so as to marry up with VIX, the market's benchmark "fear index".

The results can be seen in the chart below



Results

There are some false signals but overall the results show that the Qi Vol Indicator does a good job of pre-empting spikes in VIX.

- **"Volmageddon"** in early 2018 was pre-empted by several weeks.
- **The Powell policy error** in late 2018 / early 2019 was again anticipated.
- **Covid & lockdowns**. US equities were making new highs in Jan/Feb 2020 when Covid was perceived to be another Asian epidemic rather than a global pandemic. Qi was warning that macro fundamentals were not driving the rally & that risk levels should be adjusted.
- **2022 bear market.** Once again, the sharp loss of macro's ability to explain price action pre-empted the move in equity markets.

Conclusion

Back-testing the efficacy of the signal suggests a one month increase of more than 20 index points is the critical threshold. Such a sharp fall in macro model confidence (increase in the Qi Vol indicator), is a red light for equity volatility.

Intuitively, this should be an essential tool for investors to add into their investment process. Times when global asset prices quickly divorce themselves from the broad macro environment, is a time for risk management to move up a gear.