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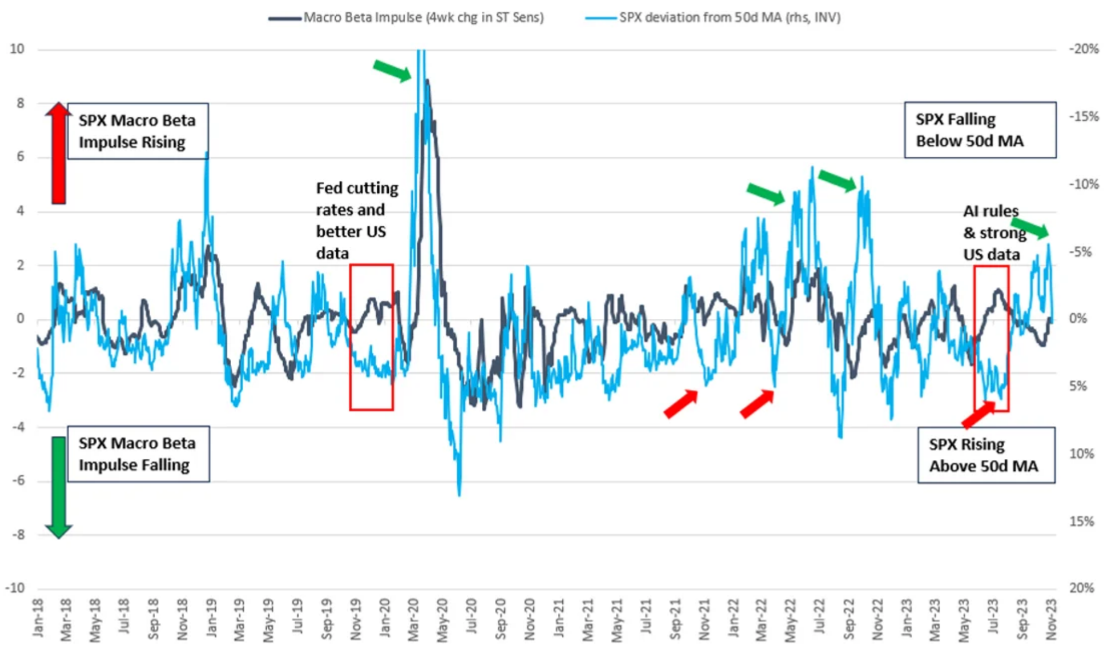
The Qi Macro Beta Impulse for the S&P500

Introducing Qi's *Macro Beta Impulse* – now equity portfolio managers and risk managers have a timely, easily identifiable metric informing them when macro risks on their books are rising or falling.

Mr. Market swings between fearful and euphoric as macro regimes evolve. Now, our unique macro factor approach quantifies how Mr. Market responds.

Assess macro volatility on your book, asset, or any index with a single measure measuring the impact of macro volatility on any asset's volatility.

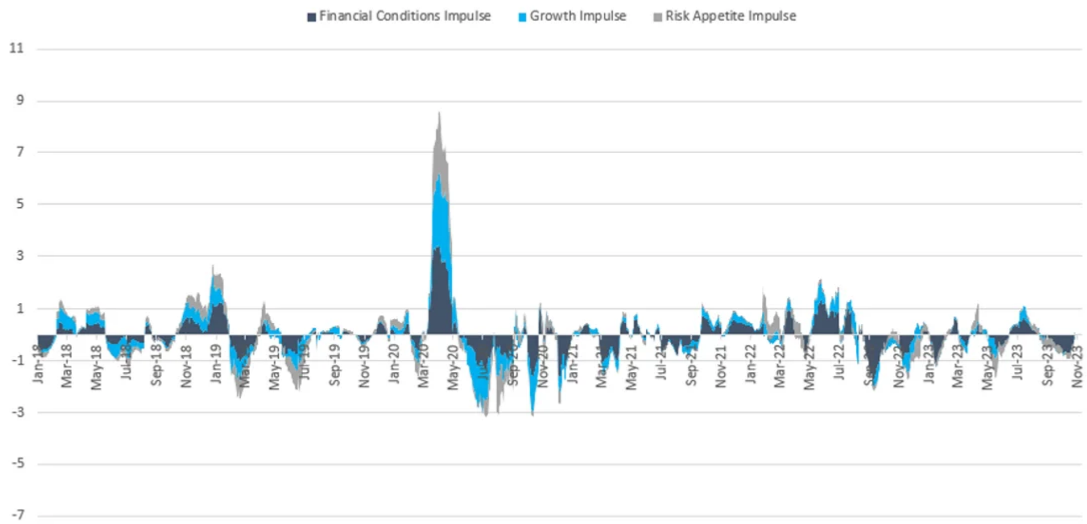


- Qi identifies the sensitivities of a security to a broad set of macro factors. This macro factor information set spans real-time indicators of growth, risk appetite and financial conditions.

- These sensitivities inform us of the most important macro influences on the security, point-in-time. However, by capturing this information daily, we can also determine how these sensitivities are *changing* over time i.e. as factor sensitivities rise, the volatility of the security is being increasingly dictated by the volatility of the macro factors. In other words, we can say that the beta of the security to macro factors has risen. We refer to this beta as the "***Qi macro beta impulse***" – a single measure of how macro factor sensitivities for the security in question are changing.

- Conceptually, what does the Qi macro beta impulse tell us? Mr. Market is a neurotic patient that would prefer a backdrop of macro factor stability / low beta to macro over abackdrop of increasing macro factor volatility / high beta to macro. By way of example, equities want tighter credit spreads, but if the sensitivity to credit spreads is increasing as opposed to stable, market attention is clearly more focused on the health of the credit cycle. Therefore, the simple hypothesis is that Mr. Market is more likely to come under pressure when the macro beta impulse is rising.

- We have considered in this note the Qi macro beta impulse for the S&P 500. Specifically, the impulse is calculated weekly - defined as the sum of the 4wk change in the absolute sensitivities to all our macro factors. This time series represents S&P500's macro beta impulse. Given the dynamism of this indicator, we use Qi's short term models to capture regime shifts in a world where investor observation mindsets have become shorter and shorter. We compare this to the S&P 500, specifically the deviations of the index from its 50d MA.



- The first chart suggests there is merit in our initial hypothesis. As the gradient of macro factor sensitivities accelerates, the beta of the market to macro factors is rising and Mr. Market struggles to digest the macro gyrations, with the index more likely to be below its 50d MA.

- We acknowledge that there can be periods where despite a high macro factor beta, the index makes headway because those macro factors are moving in a favourable direction. Earlier this year, the macro beta impulse rose, but US data was strong alongside AI dominance.

- The data shown is from Jan2018. By late October, the market was clearly oversold relative to the macro beta impulse – the aggregate change in macro factor sensitivities over the prior 4wks was close to zero – indicating a market progressively coming to greater ease with macro.

- On this basis the market was oversold in Oct22, Jun22, Mar 20 relative to the macro beta impulse. The market was overbought in Jul23, Q1 22, Nov21. Essentially, these are periods of over / under exuberance in risky assets relative to how their underlying sensitivity to macro factors is changing.

- In the bottom chart, we show the beta impulse by the broad 3 macro factor buckets – financial conditions, growth, risk appetite. There is, unsurprisingly, a high degree of correlation as macro factors do not tend to move in isolation with each other.

- Going forward this indicator will be available weekly in our Monday Macro Hub publication.