

Tell Tail Signs

An asset class outlook based on potential tail gains and losses

Interest Rates Near Bottom

This month our proprietary options-based tail risk model saw a sharp drop in any potential upside gains for sovereigns. We do not see interest rates falling much further from this point, and as such, risk to bonds is skewed more toward the downside than the upside. Equities, however, continue to display upside potential in our model due to prospects for better growth ahead.

Janus' Adaptive Multi-Asset Solutions

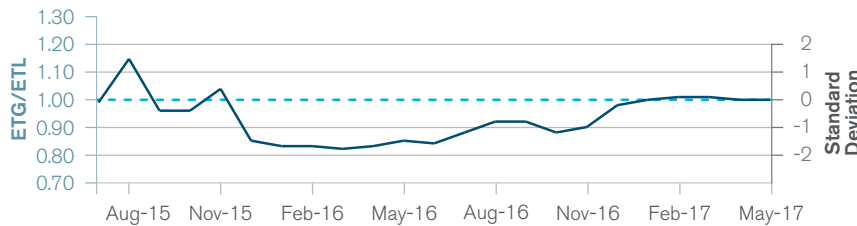
team arrives at its monthly outlook using option market prices to infer expected tail gains (ETG) and expected tail losses (ETL) for each asset class. The ratio of these two (ETG/ETL) provides a signal about the risk-adjusted attractiveness of the asset class. We think of that ratio as a "tail-based Sharpe ratio." The tables below summarize the tail-based Sharpe ratio of three broad asset class categories.

Despite both equities and inflation assets showing a tail-based Sharpe ratio of 1.0, their risk characteristics are quite different. Note that the downside risk to commodities is nearly double that of equities, which underscores the potential risks in this space. In other words, our model suggests the expected upside-to-downside ratios between equities and commodities are about the same, but it also suggests one should be careful with too large an exposure to commodities,

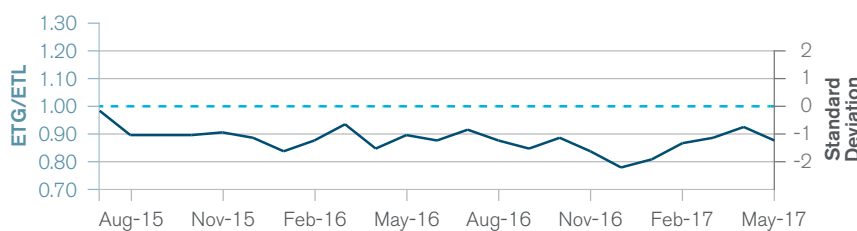
Recent Monthly Tail-Based Sharpe Ratios

(Expected Tail Gain* / Expected Tail Loss*)

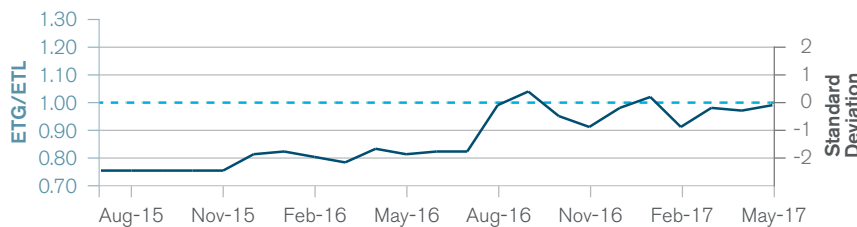
Growth Assets



Capital Preservation Assets



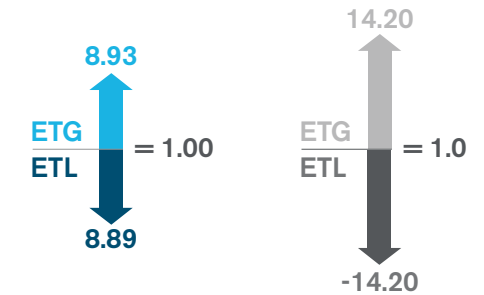
Inflation Assets



Current Tail-Based Sharpe Ratios

■ Current ■ Historical

Growth Assets ETG/ETL Ratios



Sovereigns ETG/ETL Ratios



Real Assets ETG/ETL Ratios



Beginning in August 2016, the "tail-based Sharpe ratios" have been normalized to 1.00 to allow for easier comparison across the three macroeconomic asset categories.

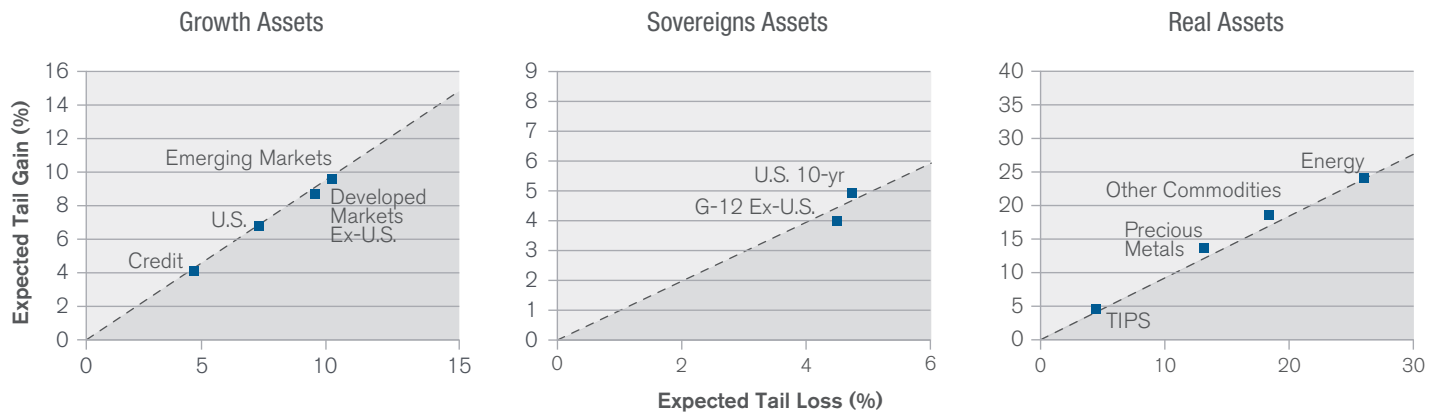
*We define ETG and ETL as the 1-in-10 expected best and worst two-month return for an asset class.

given their much larger downside risk.

In addition to our outlook on broad asset classes, Janus' Adaptive Multi-Asset Solutions team uses option market signals to provide insights into specific markets. The following caught our attention:

- ▶ Growth Assets: We continue to see peripheral Europe as attractive. However, the expected tail gains to China H shares recently fell quite sharply, yielding an unattractive tail-based Sharpe ratio, but China A shares have improved. This suggests we may see the large outperformance of H shares vs. A shares since last year's mean revert.
- ▶ Capital Preservation: Our signals continue to indicate a convergence between higher-yielding U.S. rates and lower-yielding German rates.
- ▶ Inflation: We continue to see agricultural commodities presenting the most attractive opportunities in the commodity space. Our signals indicate increased attractiveness for oil, but continue to indicate that silver and gold are the least attractive within the commodities complex.

Tail-Based Sharpe Ratio (Expected Tail Gain / Expected Tail Loss)



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