Janus Henderson
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Tail Risk Report

An outlook on asset classes based on potential tail gains and losses

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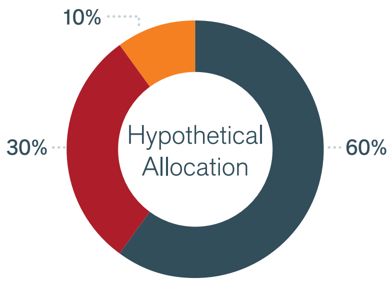
Growth is Fading ...

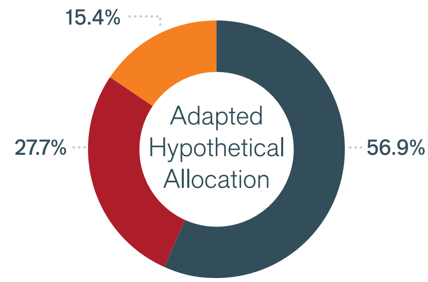
This month brings us to a potential turning point and leadership change among asset classes. Our options market signals for the first time in over two years are no longer favoring equities as the most attractive asset class. Leadership has rotated to inflation-sensitive assets. Just as important, the attractiveness of all asset classes, from equities to bonds, is below average levels. Opportunities are few and far between, and diversification may be elusive. This is of utmost importance as our signals of attractiveness are measuring the expected performance of assets in extreme circumstances, such as stress, by looking at the expected tail gains of an asset over its expected tail losses. As such, diversification may be compromised when you need it the most, which is amid stress conditions.

Impact of Tail Risk Signals on Hypothetical Asset Allocation

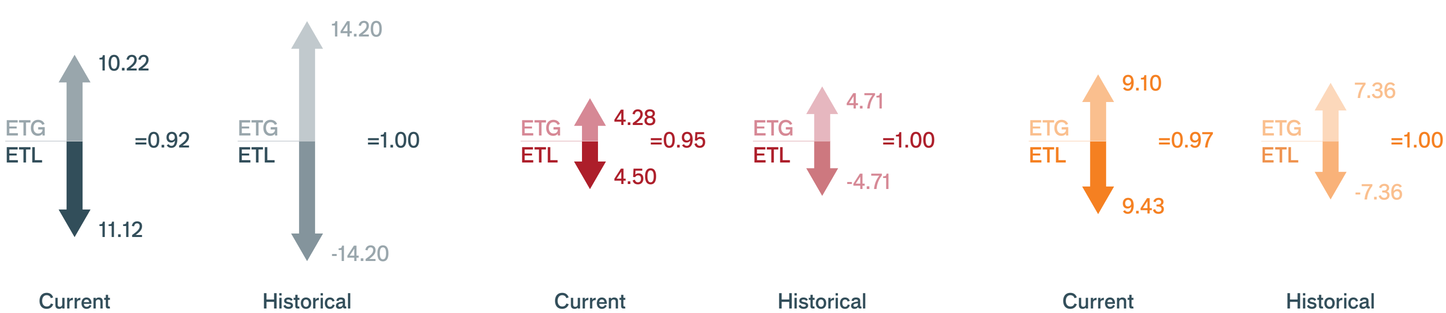
Using proprietary technology, **Janus Henderson's Adaptive Multi-Asset Solutions** team derives tail risk signals from options market prices on three broad asset classes. Given our current estimates of tail risks, we illustrate how those signals would impact a 60/30/10 allocation.

- **Growth Assets**
  U.S. Equities, Non-U.S. Equities, EME, IG/HY Credit Spread
- **Capital Preservation Assets**
  G12 Sovereign Debt
- **Inflation Assets**
  Commodities, Linkers, Break-even Inflation





Current Tail-Based Sharpe Ratios (ETG/ETL)



Our Adaptive Multi-Asset Solutions team arrives at its monthly outlook using options 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 signals about the risk-adjusted attractiveness of each asset class. We view this ratio as a "tail-based Sharpe Ratio." These tables summarize the current tail-based Sharpe ratio of three broad asset classes.

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.

These signals suggest inflation could be hovering in the background, poised to make an entrance, which would then give way for central banks to continue/start their tightening cycle, and the normalization and rise of real rates which still sit comfortably at very low levels. Such a rise would be a headwind to all assets.

With this said, across both the bond and equities markets we see the U.S. region as much more attractive than international counterparts. However, we do see emerging market equities relatively as attractive as U.S. equities, indicating a barbell approach of U.S. and EM may warrant consideration.

In addition to our outlook on broad asset classes, Janus Henderson's Adaptive Multi-Asset Solutions team relies on the options market to provide insights into specific equity, fixed income and commodity markets. The following caught our attention:

- **Growth Assets:** Globally, year to date, China equities are the worst performer across major markets. However, we are seeing attractiveness to China equities improving. Recently, China has taken the brunt of the "trade war" punch and options markets are indicating "cheapness" in its equities. In Mexico, though Andrés Manuel López Obrador's presidential win is not surprising, many are still unsure what policies will unfold given this is a man who titled a chapter in his most recent book "Privatization is a synonym for robbery." Options signals suggest that his socialistic views may take shape and, thus, the attractiveness to Mexican equities has fallen quite sharply recently, currently sitting at levels below average.

  On the positive side, signals are flashing attractiveness for Brazilian and UK equities.

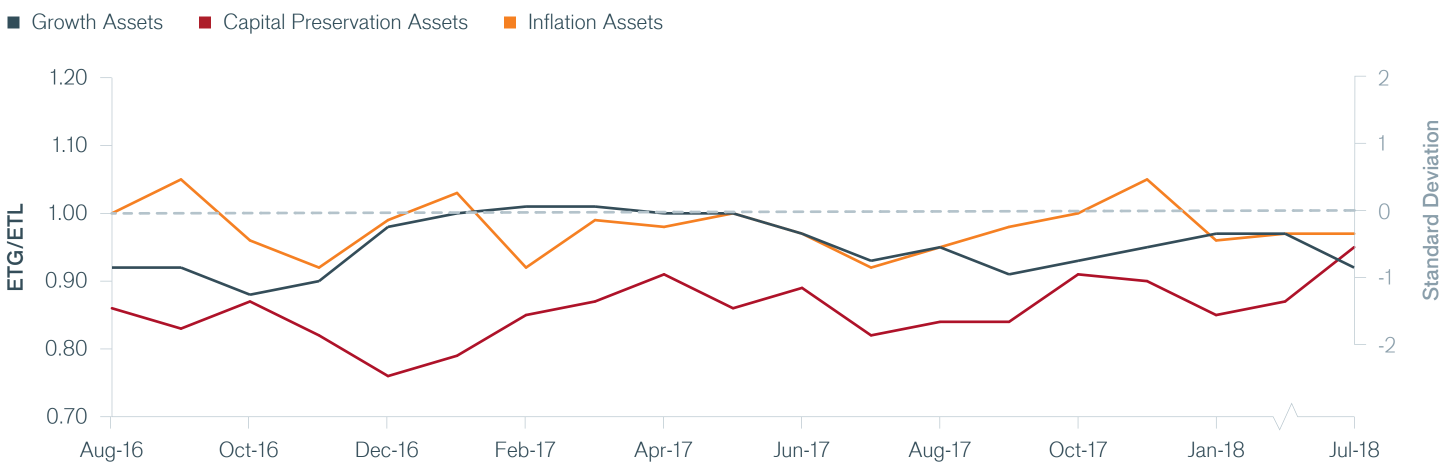
  Three of the FAANG stocks plus Microsoft were responsible for 84% of the S&P 500's YTD total return. With the exception of Apple, our signals continue to indicate above average attractiveness for the FAANGs as well as Microsoft.

- **Bonds:** We see the U.S. Treasuries as more attractive than European or Japanese treasuries. The real yield spread between U.S. Treasuries and bunds is still very wide, and buying U.S. Treasuries offers much better real yield.

- **Currency:** We see a marginally stronger dollar versus both the euro and yen currently.

Historical Monthly Tail-Based Sharpe Ratios

(Expected Tail Gain* / Expected Tail Loss*)



Data was not calculated for all months.

For more information, please visit **janushenderson.com.**

Janus Henderson INVESTORS

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