



ASSET ALLOCATION

Risk-Based Dynamic Asset Allocation With Extreme Tails and Correlations

July 2, 2012

Portfolio management is moving toward a more flexible approach capable of capturing dynamics in risk and return expectations across an array of asset classes. The change is being driven, in part, by the observation that risk premiums vary as investors' cycle between risk aversion and risk adoration and that the decision to invest — whether to take risk and how much — is the most important investment decision.

Certainly, managers should take risks, but only if the returns appear to represent fair compensation. This all suggests that the traditional strategic approach of fixed-asset allocation is outmoded. The challenge of portfolio choice is much more than merely selecting for inclusion uncorrelated asset classes that constitute significant economic exposure and then specifying a fixed proportion of each.

We propose a model of portfolio selection with heavy tails and dynamic return correlations. The powerful intuition behind our approach is that proper portfolio construction is an ongoing, dynamic process that integrates time-varying risks of the various asset classes within the investor's portfolio.

We develop a dynamic asset allocation framework that determines an investor's optimal portfolio in accordance with changing global market environments and market conditions. Specifically, we consider how global return, variance, and covariance characteristics vary across time and states of global markets for a diversified portfolio of asset classes. We then use this dynamic information to consider the asset allocation implications in a practical setting.

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