
PRACTITIONER'S DIGEST

The “Practitioner’s Digest” emphasizes the practical significance of manuscripts featured in the “Insights” and “Articles” sections of the journal. Readers who are interested in extracting the practical value of an article, or who are simply looking for a summary, may look to this section.



AN IMPROVED IMPLIED COPULA MODEL AND ITS APPLICATION TO THE VALUATION OF BESPOKE CDO TRANCHES

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John Hull and Alan White

The implied copula approach uses quotes for the tranches of actively traded indices such as iTraxx and CDX NA IG to infer a probability distribution for the hazard rates of the underlying companies. This paper presents a simple two-parameter probability distribution for hazard rates that provides a good fit to tranche quotes. One of the parameters of the distribution is determined by spreads, the other by correlation.

The correlation parameter is found to be remarkably similar for 5-year iTraxx, 10-year iTraxx, 5-year CDX, 10-year CDX, and even CDX HY at any given time. As a result, the correlation parameter can be determined by calibrating the model to actively traded instruments. The values of non-traded tranches can then be determined by setting the other parameter to match the spreads for the underlying portfolio.

The parametric implied copula model is an attractive simple alternative to the Gaussian copula model. The basic one-factor homogeneous version of the model can easily be extended to become either a heterogeneous model or a multifactor model, or both. We propose procedures for using the model to price tranches of bespoke portfolios and show that it gives good results.

DO INFORMED INVESTORS CAUSE MOMENTUM?

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James H. Scott and Jorge A. Murillo

Practitioners often build price momentum into their investment processes, but are uneasy about why it works. Some view it as an example of herd behavior and irrationality, others as a payoff for risk. Understanding why it works matters, because that understanding should affect how it is used in an investment process.

This paper presents theory and evidence suggesting that momentum is not irrational. Rather, the early price movements, that later become momentum, reflect the buying and selling decisions of well-informed investors who are able to predict company fundamentals before they become widely recognized.

The data also suggest that these investors anticipate abnormal returns, particularly very large returns, well before they occur. It provides evidence about the relationship of analysts' earnings estimates and momentum returns. Finally, it shows that the familiar reversal effect is a reversal not just of returns, but of returns and company fundamentals.

THE ASSET GROWTH EFFECT IN STOCK RETURNS

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Michael J. Cooper, Huseyin Gulen and Michael J. Schill

For years, investments managers have attempted to outperform the market using signals based on events associated with firm asset expansion and contraction. For example, studies show that acquisitions, public equity offerings and public debt offerings tend to be followed by periods of abnormally low returns, whereas events associated with asset contraction such as spinoffs, share repurchases, debt prepayments, and dividend initiations tend to be followed by periods of abnormally high returns.

In this paper, we develop a new comprehensive measure of firm expansion and contraction, a measure we call asset growth. The asset growth variable works better than any single expansion or growth measure in predicting future firm returns. We document a strong negative relationship between the growth of total firm assets and subsequent firm stock returns using a broad sample of U.S. stocks. Over the past 40 years, low asset growth stocks have maintained a return premium of 20% per year over high asset growth stocks. The asset growth return premium begins in January following the measurement year and persists for up to five years.

Potential advantages to following an asset growth signal include: (1) relatively low turnover and trading costs; since the signal is updated annually and has predictive power for at least five years after portfolio formation, portfolio turnover and transaction costs are likely to be minimized relative to other faster signals, (2) a signal that works on both small and large cap stocks; our research shows that the asset growth rate is a strong predictor of both large and small capitalization stocks, and (3) a signal which is at least as strong or arguably stronger than current popular quantitative portfolio screens; we show that compared to other well documented predictors of stock returns such as size, prior returns, book-to-market ratios, the asset growth signal has the greatest statistical significance in predicting the cross-section of returns.

A BAYESIAN APPROACH TO STRESS TESTING AND SCENARIO ANALYSIS

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Riccardo Rebonato

The paper presents a new approach to stress testing that combines the elicitation of subjective (marginal or conditional) probabilities of events with the specification of a simple causal structure among them. As a result, stress events are placed in an approximate but coherent probabilistic framework. The approach only requires the risk manager to provide 'simple' and cognitively resonant input probabilities. The techniques of linear programming and Bayesian nets then ensure the consistency of the subjective inputs and facilitate the derivation of the desired joint probabilities.