Conditional coskewness and asset pricing

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Abstract

We explore the empirical usefulness of conditional coskewness to explain the cross-section of equity returns. We find that coskewness is an important determinant of the returns to equity, and that the pricing relationship varies through time. In particular we find that when the conditional market skewness is positive investors are willing to sacrifice 7.87% annually per unit of gamma (a standardized measure of coskewness risk) while they only demand a premium of 1.80% when the market is negatively skewed. A similar picture emerges from the coskewness factor of Harvey and Siddique (Harvey, C., Siddique, A., 2000a. Conditional skewness in asset pricing models tests. Journal of Finance 65, 1263–1295.) (a portfolio that is long stocks with small coskewness with the market and short high coskewness stocks) which earns 5.00% annually when the market is positively skewed but only 2.81% when the market is negatively skewed. The conditional two-moment CAPM and a conditional Fama and French (Fama, E., French, K., 1992. The cross-section of expected returns. Journal of Finance 47,427–465.) three-factor model are rejected, but a model which includes coskewness is not rejected by the data. The model also passes a structural break test which many existing asset pricing models fail.

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