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Title
What Causes the Volatility Asymmetry? − A Clue to the Volatilities Puzzle

Abstract
The skewness of the return distribution causes the asymmetric movements of volatilities to the contemporaneous returns. Employing the skew normal distribution, we propose a model that estimates the measures for the volatility asymmetry from the return distribution skewness. We find that the sign and the magnitude of the asymmetry measures can be determined by the skewness. Empirical evidence of DJIA from 1935 to 2006 supports the hypothesis. This relationship between the skewness and the volatility asymmetry provides a clue to the unsettled volatility puzzle: the market risk premium and the conditional market risk have a positive relation. The empirical evidence contradicting the theoretical prediction may have been caused by the negatively skewed return distribution of the market portfolio.