Realized skewness at high frequency and link to conditional market premium

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Abstract

We propose a reliable new estimator for realized skewness which is robust to microstructure noise at ultra-high frequency level. Asymptotic theory for the new estimator has been derived. Simulation example verifies its superior performance. We apply the new estimator to tick data of the S&P 500 index for forecasting equity premium in the U.S. market from 1990-2011 and find that it has significant forecastability both in-sample and out-of-sample. We also show that the new skewness measure plus the variance risk premium provides right decomposition for the skewness risk. We thus provide evidence that realized skewness links to conditional market premium.

Keywords: , High-frequency, Jump, Noise, Skewness, Stock return prediction