Master's Seminar banner

"The Distribution of Realized Exchange Rate Volatility"

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WEDNESDAY, March 9 , 2005 at 5:20 pm
Eckhart Hall, Room 110, 5734 S. University Avenue

ABSTRACT

Although daily/monthly financial asset returns are approximately unpredictable, return volatility is highly predictable. Of course, volatility is inherently unobservable, and most of what we know about volatility has been learned either by fitting parametric econometric models, by studying volatilities implied by options prices, or by studying direct indicators of volatility.

Andersen, Bollerslev, Diebold and Labys (2001) introduce a complementary volatility measure, termed realized volatility. Compute daily realized volatility simply by summing intraday squared returns; by sampling intraday returns sufficiently frequently, the realized volatility can be made arbitrarily close to the underlying integrated volatility, the integral of instantaneous volatility over the interval of interest, which is a natural volatility measure. Hence for practical purposes we may treat volatility as observed, which enables us to examine its properties directly, using much simpler techniques than the complicated econometric models required when volatility is latent.