

Robert Engle: "Implied Volatility Correlations" (with S. Figlewski and A. Nashikar)

ABSTRACT:

At-the-money implied volatilities for equity options vary over time with characteristics such as mean reversion and time varying vol of vol. A model is proposed for the comovement of implied vols for different names. This is estimated allowing for a factor structure. The correlations of implieds are compared with correlations of the underlying asset returns. The model is used to compute the vega risk of portfolios of options on multiple underlyings.