Geoffrey R Harris* (gharris@stuart.iit.edu), Stuart School of Business, 565 W. Adams St., Chicago, IL 60661, and Tao L Wu. Valuation of Interest Rate Derivatives under Credit Risk and Illiquidity.

During and after the credit crisis of 2007-2009, the relative prices of interest rate derivative contracts exhibited large deviations from the predictions of standard arbitrage pricing theory. These violations lead to the failure of many basic techniques that have been traditionally applied in fixed income modeling and pricing, such as yield curve bootstrapping. We introduce four different stochastic models of credit risk and liquidity, which make specific predictions of how these pricing deviations depend on the maturity of the contracts and the tenor of the underlying LIBOR rates. We then compare these predictions to empirical observations of the relative values of different forward rate agreements. (Received January 20, 2011)