Peng Liu* (pliu19@jhu.edu) and Tim Leung. Price Discrepancy and Optimal Liquidation of Credit Derivatives.

This paper studies the optimal timing to liquidate credit derivatives in a general intensity-based default risk model under stochastic interest rate. We incorporate the potential price discrepancy between the market and derivative holder, which is characterized by risk-neutral valuation under different credit risk premia specifications. To quantify the value of optimally timing to sell, we introduce the delayed liquidation premium which is closely related to the stochastic bracket between the market price and the state price deflator. We also provide mathematical characterization and financial explanations for the optimal liquidation policy. Furthermore, we examine the optimal buy-and-sell strategy by studying an optimal double-stopping problem. Numerical examples are provided to illustrate the optimal strategies for various credit derivatives. (Received September 12, 2011)