Title:

Estimating the Term Structure of Credit Spreads: Callable Corporate Debt

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Technical Report number (Dept. of Statistics, Stanford Univ.):

2003-7

Date:

March 2003

Abstract:

In this paper I extract credit pricing information from the prices of callable corporate debt, by disentangling the components of callable corporate bond prices associated with discounting at market interest rates, discounting for default risk, and optionality. The value of the call option is sensitive to both interest rate risk and to the risk of changes in credit quality. The results include the first empirical analysis, in the setting of standard arbitrage-free term-structure models, of the time-series behavior of callable corporate bond yield spreads, explicitly incorporating the valuation of the American call options. As an application, I consider medium-quality callable issues of Occidental Petroleum Corporation, using a three-factor model for the term structures of benchmark (LIBOR-dollar) swap rates and for Occidental yield spreads. I study the correlations of these Occidental spreads with various macroeconomic and firm-specific time series, and discuss the implications of the estimated model for the current market practice of pricing callable corporate debt.