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Article

Pricing Derivatives on Financial Securities Subject to Credit Risk

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ABSTRACT

This article provides a new methodology for pricing and hedging derivative securities involving credit risk. Two types of credit risks are considered. The first is where the asset underlying the derivative security may default. The second is where the writer of the derivative security may default. We apply the foreign currency analogy of Jarrow and Turnbull (1991) to decompose the dollar payoff from a risky security into a certain payoff and a "spot exchange rate." Arbitrage-free valuation techniques are then employed. This methodology can be applied to corporate debt and over the counter derivatives, such as swaps and caps.