

1077-60-1446

**Elisabeth Kemajou\*** ([isakema@siu.edu](mailto:isakema@siu.edu)). *A Stochastic Delay Model for Pricing Corporates Liabilities.*

We consider that the price of a firm follows a non linear stochastic delay differential equation. We also assume that any claim value whose value depends on firm value and time follows a non linear stochastic delay differential equation. Using self-financed strategy and duplication we are able to derive a formula for debt value and loan guarantees of a levered company. Further, we analyze the risk structure in the complete market. (Received September 22, 2011)