Valuing equity-linked death benefits in jump diffusion models

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We consider the valuation problem of Guaranteed Minimum Death Benefits in various equity-linked products. We are interested in modeling the stock price as the exponential of a Brownian motion plus an independent compound Poisson process. Results for exponential stopping of a Levy process are used to derive a series of closed-form formulas for a variety of contingent call and put options, lookback options, and barrier options with one or two barriers. This is a join paper with Hans U. Gerber and Elias S.W. Shiu.

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