Abstract

This paper develops a model for pricing a unit-linked insurance contract by estimating the volatility. This insurance contract with minimum death guarantee is a contingent claim which implies that a hedging argument can be used to determine the price. In this case, the guarantee strike price does not depend on the current time and the insurer's liability for a death at a given time is similar to the terminal cash flow of a European put option and we end up with a Black-Scholes like put pricing formula. In this paper, we extend the work of Frantz et al. (2003) by relaxing the assumption that volatility is constant.