Faculty of commerce
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Manage Risks of Unit Linked Policies' Portfolios Using Financial Derivatives

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Requirements for the Degree of
Master in Insurance

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Abstract

The major objective of this study is to improve the investment performance for unit linked policies. Where insurers relied on these policies, which combine insurance protection with an investment component, to remain competitive with other financial institutions. This study will manage the investment risk using option contracts through the application of protective put, which gives for the investor the opportunity to obtain protection against a bear market and still be able to participate in a bull market.

In view of the unavailability of financial derivatives contracts in the Egyptian market, the study created hypothetical market of put option contracts for the stocks under study. Using black scholes model to price option contracts. And the study depended on sharp model to evaluate the efficiency of investment performance for the portfolio with and without put option contracts.

The required data for black scholes model and sharp model were hand-collected from 2005 to 2011. That period was chosen to test the efficiency of the option contracts perform under different circumstances.

The results show that:

1- Inefficiency of traditional strategies for management of stocks portfolio in the case of bear market.
2- The protective put is the best strategy to manage investment risks in the case of bear market.

This study recommends application of financial derivatives as new investment instruments in the Egyptian market. Where it provide liquidity, facilitate market stimulation and as a risk management instrument.

Key words:
Risk management, Unit linked policies, Investment risks, Financial derivatives, Option contracts, Protective put, Black scholes model, Sharp model.