

## 摘要

本研究以隨機利率模型應用至淨現值法、邊際年利率法、比較利率法及內部報酬率法等保單成本評價方法中，藉此觀察多期保單年度的價值變化，進而找出保單的報酬率、成本值或指數所呈現的趨勢，並考量在相同的情況下，比較各險種的成本或報酬優劣，最後希望消費者能在合理的隨機利率下更清楚了解保單成本的概念，並基於消費者對於合理的保單成本分析需求，能提供主管機關對於揭露保單成本的規範有更多的參考。

本研究發現各種保單在隨機利率變化的情況下，分紅終身壽險於各種成本分析方法中皆有良好的表現，不論是在考量淨成本結構的淨現值法，或是考量儲蓄性質、投資報酬為主的比較利率法以及各年度的邊際報酬利率等方法，整體而言分紅終身壽險對於消費者及保險公司應該是最優質的選擇。

再者以內部報酬率法應用隨機利率模型分析年金保險，可得知傳統遞延年金的報酬優於利率變動型年金。另外由於各種成本評價方法所著重的要素不同，想要了解保單完整全面性的評價，透過數個不同性質的保單成本分析方法計算較能呈現客觀且適切評價結果。

**關鍵字：**隨機利率、保單成本、成本比較。

## **Abstract**

This research is applied in the Stochastic Interest Model to the appraised method of insurance policy cost, such as Net Present Value Method, Marginal Yield Method, Comparative Interest Rate Method and Internal Rate of Return...etc., so as to observe the annual variation of value for different term of insurance policies, and then find out the rate of returns, cost value or trend appeared of index of the insurance policy, and consider it in the same cases to compare the good and bad from the cost or remuneration of every insurance. Hope consumers can finally clearer understand the concept of the insurance policy cost under the rational Stochastic Interest Rate, and on the basis of consumers' demand for the rational insurance policy cost analysis can offer the competent authority more reference in revealing norms of the insurance policy cost.

In this research discovered that various insurance policies in changing of Stochastic Interest Rate, its Participating Whole-Life Insurance in varied cost analytical methods has good representation, no matter in considering the Net Present Value Method of the net cost structure, or considering Comparative Interest Rate Method of the main nature of deposits or main invest remuneration, and the annual marginal return interest rate...etc., the Participating Whole-Life Insurance should be generally the most high-quality choice to consumer and insurance company.

Moreover, according to the Internal Rate of Return, using the Stochastic Interest Model to analyze the annuity insurance can learn the remuneration of the Traditional Deferred Annuity is superior to the Interest Sensitive Annuity. In addition, as various cost appraised methods focused on different elements, if want to comprehension overall appraisal of insurance policy, then it can represent more objective and appropriate calculation through the analytical method of several different nature insurance policy cost.

**Key Word: Stochastic Interest Rate, Policy Cost, And Cost Comparison.**