Living to 100: Survival to Advanced Ages: Insurance Industry Implication on Retirement Planning and the Secondary Market in Insurance

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Abstract

The paper will focus on two broad areas:

1. Integration of insurance products with investment products to mitigate the risk of outliving one's assets in post-retirement financial planning

2. Modeling and pricing for the longevity risk in the secondary market in insurance.

For the first area, the author will discuss different designs of variable and fixed immediate annuities together with investment products in order to manage the longevity risk. In particular, the author will discuss some theoretical results from the doctoral research work of one of his PhD students on integrated post-retirement financial planning. The research describes asset allocation techniques between investment, annuity and insurance products in order to optimally manage post-retirement income and bequest needs subject to ruin probabilities being kept within a prescribed minimum level.

For the second area, the author will describe techniques on how to manage the longevity risk in the secondary market in insurance for impaired policyholders needing liquidity from their existing life insurance policies. The author will describe how he has adapted into the secondary market in insurance the doctoral research work of his PhD student in developing a provision for adverse deviation (PAD) model for the longevity risk of structured settlements. In particular, the author will discuss how life expectancy and qualitative information from external underwriters can be utilized to quantify the slope risk, underwriter misstatement risk and statistical volatility risk of impaired policyholders in order to develop a PAD for the longevity risk.