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The Effect of Life Settlement Portfolio Size on Longevity Risk

STATUS: Published, August, 2008

LEAD RESEARCHERS: Paul Siegert, ISI President and CEO, and Chris Kampa, ISI Director of Research and Project Development

ISI OVERSIGHT: Paul Siegert, ISI President and CEO

PROJECT DESCRIPTION: To examine how portfolio size affects longevity risks in a pool of life settlements. Specifically, this research analyzes the impact of longevity risk on the investment return of a life settlement portfolio.

SCOPE OF RESEARCH / METHODOLOGY: Life settlements offer institutional investors an asset class that provides diversified returns which are not correlated or dependent on movements of the economy. Life settlement portfolios are, however, subject to life expectancy (LE) underwriter risk and longevity risk. LE underwriter risk can be mitigated somewhat by evaluating LE provider performance and allowing for diversity of LE providers within a portfolio. Longevity risk, studied closely in this research, can be statistically predicted, managed, and reduced by aggregating a sizeable portfolio of life settlements. A data set of 2,000 life settlement policies was assembled from which testing samples were extracted. Insured individuals ranged in age from 65 to 95 and estimated LEs ranged from 64 to 96 months. Policy face values ranged from \$70,000 to \$10,000,000. A statistical model was constructed to test the difference in deviation of LEs in different random sample distributions. The objective of this model, using basic statistical analysis, was to show that portfolio stability increases as the number of insured increases. Further, the minimum number of policies required by a portfolio to reach stability in standard deviations was estimated.

RESOURCES:

Insurance and Life Settlement Industry Research & Statistics: Conning Research and Consulting, Inc., "Institute for International Research" discussion by Michael Crane; "Investment Analysis and Portfolio Management" 8th ed. by Reilly & Brown, "Life Settlement Securitization" by A.M. Best Company, Inc.

TARGET RESULTS AND BENEFITS: Research determined that the optimal portfolio size for mitigating longevity risk is 300 lives.

TIMELINE: Project research and report drafted from June, 2008 through August, 2008.

BUDGET: \$9,100