MORBIDITY versus MORTALITY

DIFFERENTIATING MORBIDITY from MORTALITY in LIFE EXPECTANCY REPORTS

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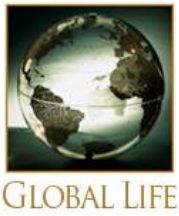

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Morbidity - the state of poor health of a person (from Latin *morbidus*: sick, unhealthy)
Mortality (rate) - a measure of the number of deaths in a given population

INDUSTRY EVOLUTION

The life settlement industry (the secondary market for life insurance) evolved from viatical settlements which are the sale of a life insurance policy to a third-party investor for more than its cash surrender value and less than its death benefit where the insured has been diagnosed with a terminal illness. This evolution has been relatively recent. In any evolving industry, there are certain business practices that lead to unintended and often disastrous consequences. An example of this occurred in the traditional methodology for determining life expectancies.

In the viatical market, medical underwriters experienced in determining the expected mortality associated with terminal morbidity were required to try to place specific estimates on the insured's life expectancy as the error of even a few months has a significant impact on the return to viatical investors. A number of companies emerged to provide these life expectancy reports (LERs). Ultimately, the viatical market, which arose during the early days of the AIDS epidemic in the United States, was dealt a severe blow as life expectancies of insured's with AIDS were significantly extended with the development of new treatment regimens causing significant losses to investors.

In spite of this, investors looking for investments not correlated to other more traditional investments such as stocks and bonds were drawn to the idea of purchasing insurance from senior insured's who did not have a diagnosed terminal illness. These seniors chose to sell their insurance policy because it was no longer required or affordable, to pay for the rising cost of health care, to pay for long-term care insurance, to purchase an annuity, or simply to improve the quality of their remaining years. In order to price these policies, investors turned to existing providers of LERs. These life expectancy providers (LEPs) utilized their morbidity methodologies developed initially for the viatical market to prognosticate life expectancy based on the insured's morbidity. The problem is that viatical morbidity methodologies do not necessarily transfer to the life settlement market.

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TRADITIONAL LIFE EXPECTANCY PROVIDERS AND LIFE EXPECTANCY REPORTS – THE MULTIPLIER METHOD

LEPs typically review an insured's attending physician summaries (APS) and, where available, review current lab results and other available information to form a view of an insured's health/morbidity. This is translated into a multiplier that reflects the insured's specific health versus the expected health for a "standard" person of the insured's age and gender. This multiplier is applied to standard mortality tables developed by actuaries for the life insurance industry such as the 2001 CSO or the 2001 VBT tables. The result is a single number derived from a standardized actuarial probability formula that represents the expected number of months the insured is expected to live. This "life expectancy" (LE) became the key variable for standardized valuation software by Milliman Corporation which has become the current industry standard for valuing life insurance policies.

For investors, this "multiplier method" of life expectancy calculation leads to two disastrous outcomes. First, with no clear medical underwriting or actuarial standards for translating morbidity factors into a mortality multiplier, LEPs invented their own methodologies that were applied by their underwriting staffs, often with little or no consistency. This led to a wide dispersion of results, both within LEPs and between LEPs. Second, LEPs had to determine how to apply their morbidity estimates to multipliers and what the range of the multipliers would be. With no existing data as to the dispersion of mortality outcomes by morbidity, LEPs were left with the task of determining the magnitude of multipliers and which morbidity or comorbidity factors associated with these multipliers.

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Since the industry is still very young, no LEP has sufficient data to determine whether their underwriting approach properly associates morbidity with mortality. Investors were left with conjecture or individual experience to determine whether these important valuation inputs were accurate. As several large portfolios were accumulated by institutional investors, the mortality experience of their portfolios began to diverge significantly from their expected mortality based on the LERs they had purchased. In 2006, a major change in methodology by one of the oldest and largest LEPs confirmed these suspicions and resulted in large increases in LEs and an offsetting reduction in the value of investor's portfolios of life settlements.

While this resulted in the reworking of investor's models and may have significantly contributed to the failure of several attempts at securitization by various institutional investors, the industry recovered with the arrival of new investors and the life settlement industry continued to expand, augmented by the rapid growth in newly issued premium financed policies that were often issued based on estimates of policy value derived from LERs.

2008 VBT and Relative Risk

All of this guessing by LEPs should have ended in March 2008 when the Society of Actuaries published its much anticipated revision to the 2001 Valuation Basic Table (VBT), the 2008 VBT. 2008 VBT represents a giant leap forward in quantifying mortality associated with fully-underwritten life insurance policies. 2008 VBT is based on a study conducted from 2002 to 2004 by a joint working group of actuaries from the Society of Actuaries and the American Academy of Actuaries.

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This 2002 – 2004 study is significant and remarkable in several regards. It represents, by far, the largest sample of mortality data ever assembled from the insurance industry. In all, almost 700,000 mortality events were analyzed representing $7.4 billion in death benefits. The working group accumulated data on sub-standard (rated) policies as well as standard and preferred policies. Finally, the working group spent considerable time and money establishing a uniform standard by which to independently rate all policies through the creation of an "Underwriting Criteria Score" (UCS) system. This published methodology was developed to standardize policies independent from their issuance by carriers so that mortality could be measured by the morbidity of insureds at the time the policies were issued.

These results were published as new Relative Risk (RR) tables which augment the primary 2008 VBT. The RR tables represent a giant leap forward in providing statistically reliable detail for measuring the impact of morbidity on mortality. Remarkably, most traditional LEPs have completely ignored the results of the RR tables. In fact, one LEP publicly announced that it had not bothered to study the results as they were "new." Recently, one of the oldest and largest LEPs announced yet another major change to its LE methodology leading to increases of expected mortality of up to 30%. This has thrown the life settlements market into disarray yet again.

Industry Response

In response to the upheaval caused by this announcement, the author responded by presenting three Webinars, "*Demystifying Life Expectancy Reports*" which were attended by over 250 members of the life settlement industry.

2008 VBT RR tables offer investors and the life settlement industry generally a standard by which mortality can be accurately and consistently calculated

The conclusion of the Webinars was that the 2008 VBT RR tables offer investors and the life settlement industry generally, a standard by which mortality can be accurately and consistently calculated for fully underwritten policies. In fact, overall mortality among seniors has changed remarkably little – less than 5% overall – since the release of 2001 VBT. There have, however, been some significant changes within the mortality tables that will effect investors: (1) mortality rates have come down dramatically during duration periods 1 and 2 (the "contestable" period); (2) mortality rates have generally risen to offset this decline in duration periods 3 through 5; (3) LEs for women have risen approximately 10%; (4) LEs for men have remained virtually unchanged; and (5) LEs for smokers have continued to decline.

Following the Webinars, several LEPs announced that their LE methodologies were compliant with 2008 VBT, i.e. – that they relied on the Primary VBT tables. Unfortunately, these LEPs have clearly missed the real significance of the 2008 VBT RR tables by relying instead on the Primary Tables. These LEPs have continued to utilize their methodology of evaluating morbidity factors to determine arbitrary multipliers that they then apply to the new 2008 VBT Primary table. This continues the industry's tradition of generating non-standardized, opaque and arbitrary LEs. Simply put, multipliers are the cause of inaccuracy for LERs. Diagnosed illness has not correlated well with reduced mortality estimates by LEPs.

New LE Methodology - CARAT™ based Life Expectancy Reports

In order to attract significant new capital sources with a reasonable cost of capital, the life settlement industry requires LERs that are consistent, accurate, reliable, accountable, and transparent. Global Life Underwriting (GLU), a new LEP founded by the author, has begun delivering LEs that utilize Underwriting Criteria Score as a standardized methodology for medically evaluating an insured's morbidity to properly assign them to an RR category from which an objective and consistent LE can be derived. GLU calls this **CARAT**™ based underwriting.

To accomplish this, GLU utilizes a 3 step approach to underwriting:

Step 1. Each insured is rated on a standardized basis as though they were applying for new insurance. This is done using highly experienced life insurance underwriters working from the Swiss Re underwriting manual, the bible of the life insurance industry, and conforming to GLU's UCS compliant rating system. The result is to place an insured in one of the 10 established RR categories for non-smokers or 4 categories for smokers.

Step 2. If an insured cannot be placed in an RR class because they would be declined for insurance given their current health, their LE would be based on the Social Security Administration (SSA) mortality table for the general population in their gender.

Step 3. Where the Step 1 underwriting process identifies morbidity factors that suggest a substantial risk of short-term mortality, an intensive "impaired risk" underwriting should be undertaken to determine the insured's life expectancy. This is most similar to the type of underwriting done historically by viatical-oriented LEPs.

An alternative approach that some investors may pursue is to utilize the carrier's initial policy rating and to age the insured based on the appropriate RR table starting with the aged-up duration period of the policy. This will typically result in a higher (more conservative) LE for insureds that fall into Steps 2 or 3.

Age Last Birthday (ALB) versus Age Next Birthday (ANB)

GLU generates LEs that are accurate to the insured's current birthdate month

When the CSO and VBT tables were first created, computers were not widely available and standardized printed tables were common. The convention of pricing to ALB or ANB was born. This convention has carried over to traditional LEPs who still generate their LEs based on this stair-step approach. This creates artificial short-term valuation imbalances based on how far the valuation date is from the insured's birthdate. GLU has eliminated this concept by creating an LE calculator that generates LEs that are accurate to the insured's current birthdate month.

Conclusion

The life settlement industry has seen its growth constrained over the past several years through a combination of poor investor experiences and failed securitization efforts. Both of these issues can be attributed to the mistakes of traditional LEPs that have projected a greater number of mortality events than have been experienced. To permanently fix this problem, LEPs must standardize on the actuarial and underwriting concepts imbedded in the 2008 VBT Relative Risk tables and the companion Underwriting Criteria Score system. LEPs should compete on their ability to provide timely, accurate, consistent LERs and excellent customer service - not on their ability to package and sell proprietary black box systems that are neither standardized nor comparable.

Rather than seeking lower LEs that justify paying higher prices for policies or artificially marking up existing investments, investors in life settlements must demand the changes described above by insisting on **CARAT**™ based LERs. In this way, investors will be able to systematically achieve their projected rates of return and the life settlement market will be able to attract sufficient capital to support the rapidly growing demand by seniors to sell their unwanted or unaffordable insurance policies. Given the current financial environment and the aging of the population, the need for new sources of capital in the life settlement market is more pressing than ever before.

ABOUT THE AUTHOR

Howard Freedland, CFA

Howard Freedland has extensive experience as an institutional investor and serial entrepreneur. In 2007, Mr. Freedland formed Lido Ventures with James Slazas. Lido Ventures has invested in several life settlement companies including Lido Asset Management, a FINRA registered investment advisor specializing in managing life settlement portfolios; Global Life Partners, a life settlement broker; Global Life Settlements, a life settlement provider; and Global Life Underwriting, a life expectancy provider. In 2000, Mr. Freedland became Chairman and CEO of The Lido Group, Inc., a consulting company specializing in the telecommunications and utility industries. Previously, Mr. Freedland was the Chairman and CEO of National Water & Power and the CFO of GE Capital – ResCom. During his career as an institutional investor, Mr. Freedland was Managing General Partner of September Investors, Ltd., a hedge fund he formed in 1979 and September Venture Partners, Ltd., a private equity fund; and, in 1984, founder and CEO of London Freedland Incorporated, an NASD broker/dealer. Mr. Freedland began his investment career in 1973 as a quality of earnings analyst and mutual fund portfolio manager for St. Paul Advisors. Mr. Freedland was an Instructor in Finance at the University of Minnesota where he worked with Professor C. Robert Carlson to create the financial formula Net Terminal Value. Mr. Freedland received his B.A. from the University of Minnesota and has been a Chartered Financial Analysts since 1978.

For additional information concerning Global Life Underwriting, LLC or **CARAT**™ based LERs, please contact:

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