Long-Term Care Insurance  
An Actuarial Approach to Rate Increases

The MSA “method” has an overriding fatal characteristic: it is non-actuarial. This has been documented a number of times by the American Academy of Actuaries (“**AAA**”).

This article refers to Long Term Care (“**LTC**”) insurance policies. The primary objective is to use actuarial methods to determine if a rate increase is justified. Regulations are based on Loss Ratios. We should also realize that a policy form will probably have several classes. Classes need to be split if the selections are optional. The intent is to make sure the less expensive classes are not subsidizing the more expensive classes.

Whether Pre-Rate Stability or Post-Rate Stability, separate classes exist depending on the:

1. Policy Form: the initial rate filing defines the loss ratio (“**L/R**”) for the entire form, but a policy form is usually not a single class. Loss ratios for different classes within a policy form will need to be calculated.
2. Premium Classes
3. Premium-paying-period: L/R’s differ by paid-up option, for example: Single-Pay, 10-Pay, Paid-up at Age 65, and Lifetime Pay are four different classes
4. Survivorship: premium classes differ based on the Survivorship option; for example: lifetime-pay with survivorship and lifetime-pay without survivorship are two different classes
5. Number of lives: single-life and joint-life are two different classes.
6. Benefit Classes
7. Federal tax qualified (“**TQ”**): Yes, No and Pre-TQ are three different classes
8. Coverage: Facility-only, Home-Care only and Comprehensive are three different classes
9. Indemnity vs. Reimbursement: these are two different classes
10. Restoration of Benefits (“**ROB**”): with and without ROB are two different classes (note: commercial valuation systems assume all policies have ROB, thus, the liabilities for policies without the ROB benefit are often overstated).
11. Benefit Options
12. Unlimited (or Lifetime) Benefit Period: benefit periods of 10 or more years could be merged with the Unlimited Benefit Period
13. 5% Compound Inflation Protection option.

These two classes are generally the most expensive options. Segregation of these classes allows the reviewer to ascertain that these two classes are not heavily subsidized by less expensive classes.

1. Rate Increase: Classes are separated by their initial filing and any approved rate increase.

All combinations of A) through D) should be considered separate classes if the choices are optional.

**Initial Points Re: Rate Increase Filings**

1. Pre-Rate Stability: The L/R for any rate increase filing cannot be less than the prior rate increase filing.
2. Post-Rate Stability: The L/R for any rate increase filing cannot be less than the prior rate increase filing or 85%.

**First Rate Increase: Intro**

Classes should be calculated individually and in total (for the form). With the first rate increase, two initial L/R’s should be calculated for each class:

1. The expected L/R based on the assumed distribution of sales
2. The expected L/R based on the actual distribution of sales.

The minimum initial L/R should be the greater of these two. This prevents a company from intentionally misrepresenting the expected L/R, or, more likely, not getting the distribution they were hoping for.

The Margin for Adverse Experience (“**MAE**”) (minimum of 10%) should be included with all initial filings to help avoid rate increases. The MAE should not be added to any rate increase filings.

For a rate increase filing: in-force policies that are paid-up (that is, the policies for which no further premium is due) should not be included. Paid-up policies are now the responsibility of the company and any premium deficit of paid-up policies cannot be charged to the premium-paying policyholders.

For each policy form, if any class has less than 5% of the total number of in-force policies, that class is immaterial. The rate increase for any immaterial class should be determined by the similar material class.

**First Rate Increase**

For the first rate increase and for each class, there will be two projected premium streams: the initial premium and the premium for the rate increase. The initial premium will have a historical portion and a projected portion. Similarly, claims will have historical claims and two pieces for the projection: claims that were initially projected and the additional claims from the new assumptions. For the Active Life Reserves (**ALR**), most companies do not change their reserve factors, yet the reserves will still change due to: 1) the new projection, 2) if the requested rate increase is adjusted, and 3) policyholder behavior.

From the projected premiums and claims, new L/R’s may be calculated for each class and in total. A new maximum L/R may be calculated using:

1. the original loss ratio and the anticipated premium from the original premium
2. the projected rate-increase premium and its associated L/R (this L/R will not be less than 80% for pre-Rate Stability and 85% for post-Rate Stability).

**Overview**

For any rate increase, there will probably be several classes. For each class, there will be separate premium streams for the initial premium and each rate increase. Each premium stream will have its own loss ratio requirement, so each premium stream must be kept separate. The loss ratio is determined by the filing (initial or rate increase). From rate-increase filing to rate-increase filing, the L/R cannot decrease. To keep rate increases to a minimum, rate increases should not be delayed – this is the company’s responsibility.

For all premium streams: the proposed rate increase will be affected by policyholder behavior. Policyholder behavior will lead to additional lapses and reduced premiums and liabilities due to benefit reductions.

For each premium stream (initial, first rate increase, second rate increase, …) the accumulated premium and L/R may be used to calculate the overall loss ratio. For each class and the total: if, after the requested rate increase, the loss ratio is too low, the requested rate increase may need to be adjusted downward.

**L/R Calculations for the Rate Increase**

Within each material class, there will be premium streams associated with the initial premium and each rate increase. For each prior rate increase there is a historic L/R and a new L/R associated with the current rate increase. Applying these L/Rs to each associated premium stream provides the minimum loss ratio for the class. The rate increase may be adjusted downward if the L/R after the proposed rate increase is too low.

**Calculations for Surplus**

For each class, the “surplus” (ALR + PVF Premium – PVF Claims – PVF Expenses) (**PVF** = Present Value of Future) may be calculated, and summed for all classes. Overall surplus for the product may be analyzed to determine if the rate increase needs further adjustment.

Each premium stream will be divided by historical and projected. The projected premiums will be impacted by the proposed rate increase with expected shock lapses and expected benefit reductions. ALR should be calculated before the rate increase, after the rate increase, and after the adjusted rate increase (Note: the ALR before and after the rate increase are usually the same as companies do not usually change the ALR factors due to the rate increase – the ALR is usually changed only due to policyholder behavior, and policyholder behavior changes only: 1) due to the rate increase and 2) any adjustment that is made to the rate increase). These will be used to calculate the surplus for each class, and in total for the filing.

**ALR**

New assumptions affect the premium and should also impact the ALR. However, most companies do not change the ALR factors due to a rate increase. The thought is that the new premiums and the current ALR should be sufficient for the block of business. However, in many cases, the present value of the premium and the ALR is not sufficient for the block of business. This should be analyzed to determine if the rate increase needs to be larger (perhaps as large as the requested rate increase, but not larger than the requested rate increase) to make the block sufficient.

**L/R’s Cannot Decrease**

A decreasing L/R is somewhat related to Bait and Switch. What would be easier than to sell a product with a high L/R and then rate increase the policies to a low L/R as policyholders attain age 80 -- forcing policyholders to lapse just before the average age of claim.

Similarly, some companies may have a high expected L/R and give a “partial” rate increase to lower the L/R and then give another rate increase to further lower the L/R. This process is unfair to the policyholder as the final rate is higher than if the first rate increase had been given. If a policyholder must lapse due to inability to afford, they should have early knowledge so that they can lapse sooner rather than later.

**Post-Rate Stability**

During the 1990’s, a number of agent-owned companies were selling LTC benefits. Many of these companies began their sales in Florida, with an aging population. Often, these companies utilized quick issuance and paid their claims rapidly: features often advertised to the public. These actions encouraged the public to apply for their policies. One of the more prominent carriers was known for approving applications that had been disapproved by non-agent owned companies. The initial premium rates were very competitive. This company began a habit of giving a rate increase in the second policy year, and paying a first-year commission on the rate increase. Many agents accepted this policy, feeling fully compensated because they were paid a full commission on the initial premium and the premium increase. Unsuspecting policyholders were surprised by the rapid rate increase. Understandably, these rapid rate increases led to many complaints at various state Departments of Insurance (“**DOI**”).

Rate Stability was enacted to solve this issue. The primary impact was the minimum 85% L/R requirement for any rate increase. Long-term care is an expensive product for companies to administer. With a loss ratio of 85%, an expense ratio of 10 - 12% and premium taxes of 2-3%, companies could have little expectation of making a profit on their LTC product. Thus, to make a profit, a company could not have an initial ‘loss leader’ premium and follow that with a large rate increase to create the profit.

**Initial Premiums Prior to “Rate Stability” Regulations**

In the early days of LTC, there was very little experience to draw upon for expected claim costs. Most experience assumptions came from Medicare policies. With hindsight, we now realize that Medicare policies understated the claim period and overstated the lapse and mortality rates. As data was collected from LTC policies, these differences were recognized – and the data improved over time. The needs for LTC data updates continues.

In the 1990’s average issue ages were often in the 70’s. As tax-qualification was approved, carriers were aware that lapse rates appeared to be overstated, and claims were beginning to look higher than expected. Unfortunately, the carriers delayed rate increases because they did not want to give rate increases to the elderly without being assured of the adverse data trends. By the time that Rate Stability became regulations, the need for rate increases was formally realized by most carriers. As the carriers began to file rate increases, the state DOI’s also were against raising rate for the elderly. Thus, rate increases were doubly delayed, leading to larger rate increases due to their late filings and later approval. Today, there are cumulative rate increases that exceed 500%.

**Actuarial Equivalency**

LTC policies build a large ALR. The ALR is calculated with the initial policy premiums is funded with policyholder premiums (and not with the company’s monies).

Generally, lapses are regarded as being due to policyholder circumstances. However, as rate increases become very large, policyholders cannot be expected to continue to afford the rate increases. On the positive side, policyholders continue to realize the value of their policy and try to keep them in-force, although often with lowered benefits as they cannot afford the premium for the benefits they originally purchased. When the policyholders lower their benefits, their ALR is reduced as well. However, since the policyholders funded the reserve, the reserve should belong to the policyholders. When policyholder benefits are lowered, the decrease in reserve should be used to fund the benefits that remain (termed “actuarially equivalent”). Today, this is not required in the model regulations (although some states may require the reserve decrease to be used for the remaining policyholder benefits). In states where Actuarial Equivalency is not required, companies are permitted to do whatever they want with the reserve decrease.

An example of Actuarial Equivalency is when a policyholder is allowed to lower their Inflation Protection option going forward (the current benefit level is not reduced), and accept a lower Inflation Protection interest rate going forward . . . and their premium is not increased. An example is:

A block of business has a 5% Compound Inflation Protection interest rate and an ALR of a billion dollars. An offer to lower the Compound Inflation Protection interest rate (going forward) from 5% to 3% might be made so that the policyholder’s premium does not increase. This is generally termed a Landing Spot (where the going forward inflation protection interest rate is lowered from the original interest rate to a “Landing Spot” [in this example, the 5% initial Inflation Protection Interest Rate is lowered, for future policy years, to 3%]). For all policyholders with the 5% inflation protection interest rate, the current reserve is a billion dollars. If all the policyholders choose the Landing Spot, the reserve is lowered from $1,000,000,000 to $600,000,000. Without Actuarial Equivalency, the decrease in the reserve ($1,000,000,000 - $600,000,000 = $400,000,000) is given to the company to do whatever they want with the $400,000,000. With Actuarial Equivalency, the initial reserve for the Landing Spot should be the current reserve of $1,000,000,000.

In the example, Actuarial Equivalency increases the Landing Spot from 3.0% to 3.5%, the carrier’s reserve did not change, and the policyholders were able to use the entire reserve (that they funded with their prior premiums). Similarly, for any group that reduces their benefits, the accompanying reserve reduction could be used to decrease the benefit reduction, giving the policyholder the benefit of their prior funding of the ALR.

At a minimum, for Actuarial Equivalency, the company should hold the reserve reduction as a separate amount. The amount should increase with investment earnings and be used to lower any future rate increase.

**Today’s Regulatory Environment**

LTC carriers are removing themselves from the LTC marketplace. There were some early mistakes (no LTC data, carrier delay of filing a rate increase). But these have, for the most part, been rectified. However, some states continue to delay rate increase approval. Although carriers see the need for the product as the population ages, they tend to view LTC as a product where they cannot make a positive return. Thus, many, if not most carriers, are no longer accepting new sales. It appears there are no new carriers entering the marketplace.

**Rate Increase Variance by State**

State differences in regulations and definitions affect premium rate increase filings. Past history of some states approving all or a majority of rate increase filings versus states that either deny or approve only a small portion of the requested rate increase has resulted in large variances in premiums on a state by state basis. Policyholders in one state could be paying significantly more or less than policyholders with the exact same coverage in a different state. Companies are striving to achieve the same L/R in all states taking into consideration prior rate increase filings and the large variances that are the result of state approvals or disapprovals. The goal to achieve level rates across all state is neither reasonable nor actuarial.

**Solutions to a Necessary, but Rapidly Dying, Product**

We need insurers – but they are a dying breed. Consumers need a way to pre-fund potential long-term care services and expenses. We should work towards a solution that works for both the public and the carriers.