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Mechanics and Basics of Long-Term Care Rate Increases

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WHAT IS DRIVING THE NEED?

For those familiar with the long-term care (LTC) insurance industry, the misses of the past in terms of pricing assumptions and the need for rate increases have been well established. This has often led to double-digit rate increases—sometimes triple-digit. However, for those who are less familiar with the mechanics of LTC insurance, the reason for the large increases can be perplexing or even seem like a conundrum—how is there a need if, for example, the historical loss ratio is low or the company collects more premiums because policyholders are persisting? To help understand the situation, this article walks through the mechanics of issue age rating and pre-funding to clarify some of the common misconceptions about LTC rate increases. It then discusses how misses in some of the key pricing assumptions drive the need for a rate increase.

COMMON MISCONCEPTIONS

Misconception 1: These products are annually renewable

LTC insurance is guaranteed renewable and priced on an issue age basis. The premiums are expected to cover costs over the future life of the insured

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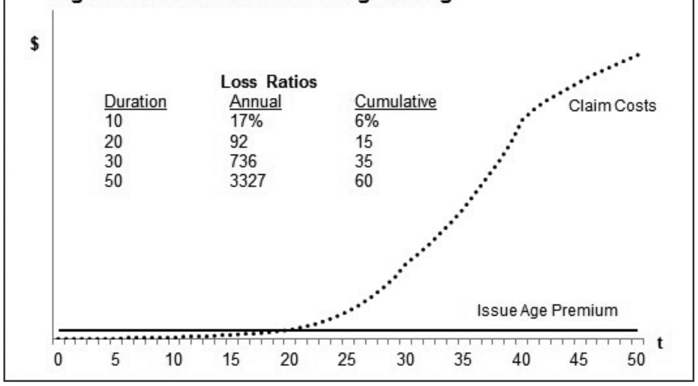

Figure 1: Mechanics of Issue Age Rating

and are level unless a rate increase is pursued. In contrast, other health insurance products may be annually renewable and rated by attained age, meaning they are priced such that premiums are expected to cover the costs for only one year, after which they increase because of aging or trend. If LTC insurance were rated by attained age, the rates would follow the shape of the claim cost curve and the annual loss ratios would be more uniform instead of very low in early durations and extremely high in later durations. Figure 1 provides an illustrative example.

Additionally, attained age rates for annually renewable products are driven by the morbidity assumption because the rates are only intended to cover the cost for one year. Therefore, if experience unfolds differently from what was expected, it can be seen quickly (with a lag), and adjustments can be made to the next year's rates. However, for LTC products, it may be many years before a miss in the morbidity assumption unfolds in the experience because the average LTC claimant age is around 80 but the average issue age is only about 55. Also, because LTC is priced over the future life of the insured, the assumptions for persistency and interest are key to ensuring that the company has enough reserves to pay future claims. Misses in these assumptions have a critical impact on performance, but again may not unfold in the experience or affect the historical loss ratio for several years. Furthermore, rate increases on more recently priced LTC policy forms cannot be pursued until performance has deteriorated to be more than moderately adverse.

Filing for a rate increase early is critical to the performance of LTC products, but to date the industry has not been conducive to the annual rate increases of some other health products. To consider LTC rate increases annually may require a shift in

thinking (and regulation) regarding LTC rates and the basis for which a rate increase is determined. For example, adjusting LTC premiums annually would require frequent analysis and early detection of trends in the experience or industry rather than waiting several years until the experience has clearly deteriorated from the original expectation.

Misconception 2: Using historical loss ratios to determine performance is appropriate

In early policy years when claims are low, a portion of premiums received are set aside to pre-fund expected future claims. This pre-funding aspect of LTC insurance results in low historical loss ratios, which can cause several misconceptions, including that the company has experienced significant profits or that there is time to wait and see how experience will unfold before deciding whether a rate increase is needed. While evaluating the need for a rate increase based on historical loss ratios may be appropriate for medical insurance, this method does not capture the pre-funding component of LTC premiums.

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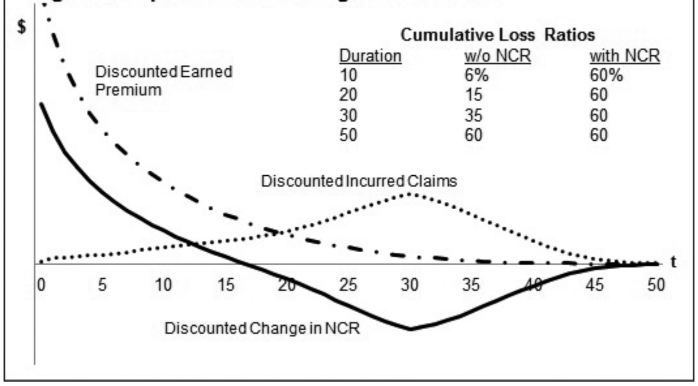
Contract reserves are established as a regulatory requirement to capture the portion of premiums designated to fund future claims. In later years when claims are high, the company releases the contract reserves to cover those claims. As a result, when looking at historical cumulative loss ratios, the change in contract reserves should be considered in the numerator of the loss ratio calculation. Over the life of the policy the change in contract reserves is zero, thus the lifetime loss ratio is equivalent to that based solely on incurred claims and earned premiums. Because the contract reserves represent a liability, by capturing the change in contract reserves in the numerator of the loss ratio calculation, the historical loss ratios increase significantly. The cumulative loss ratio is constant in all durations when using a natural reserve (i.e., pricing assumptions and net level premium method) rather than statutory reserve (i.e., includes reserve margin and one-year full preliminary term method).

Figure 2 provides a graphical illustration of the above concept. The claim and premium lines in Figure 2 are the same as those in Figure 1, except that they capture the impact of persistency and interest discounting. This impact is significant as can be seen by the fact that at time zero, these lines are at the same point as those in Figure 1.

Misconception 3: Companies have time to "wait and see" how experience will unfold

As mentioned above, there is often a misconception that, because of the low historical loss ratios for LTC insurance, a company has time to wait and see what happens before pursuing a rate increase. However, as more time passes without a rate increase, the future premium base to which the rate increase would be applied continues to shrink. Deferring the rate increase just five years to wait and see how experience unfolds may double the rate increase needed to produce the same lifetime loss ratio that would have been achieved had the increase been implemented today. Waiting too long could even result in a triple-digit rate increase that provides virtually no financial relief because of how little premium remains. A key consideration is how to strike a balance between early implementation and the amount of experience (company-specific and/or industrywide) needed to determine whether a rate increase is necessary.

Figure 2: Impact of Pre-Funding on Loss Ratios



ASSUMPTION CHANGES THAT DRIVE THE NEED FOR A RATE INCREASE

Morbidity

Morbidity can vary based on a myriad of factors including issue age, duration, gender, marital status, benefit period, elimination period, covered benefits, and level of reimbursement. The morbidity assumption may also vary between companies depending on the degree of underwriting and claim adjudication practices.

As mentioned above, because the product is priced on an issue age basis and because there is a large discrepancy between the average issue age and average claimant age, misses in the original morbidity assumption may not become credibly apparent for many years based solely on company experience. Furthermore, as the experience in early years primarily reflects the underwriting selection period, the early performance of the block relative to original pricing may be indicative of differences in the underwriting selection assumption but not necessarily in the ultimate morbidity level.

Because of the low frequency nature of LTC claims, company-specific experience is often supplemented with industry experience to increase credibility. When LTC insurance was introduced, the morbidity assumption was based on population data, but over time the assumption has been updated to reflect insured data. Over the past decade, we have seen the morbidity curve steepen, with the claim costs at younger ages decreasing and those at older ages increasing. This better understanding of the

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expected future morbidity levels, particularly those related to the tail of the claim cost curve (i.e., the high costs at the oldest claimant ages), may result in the need for a rate increase.

Persistency

LTC rates are priced to be in effect over a period of 50 or more years, so the assumption for persistency is crucial to assuring that the company has enough reserves to pay claims. Misses in this assumption can have a substantial impact on performance—but, as with misses in the morbidity assumption, they may not become evident for several years.

Intuitively, one might expect that higher persistency implies that the company is collecting more premiums than originally anticipated and thus it is a good thing! However, while higher persistency means that people value the coverage and/or are living longer, higher persistency results in significantly higher claims over the life of the product than were originally expected. This is because there are more policyholders in later years that are exposed to the extremely high claim costs that comprise the tail of the claim cost curve. As a result, the reserves held by the company will likely not be sufficient to cover the increase in future costs, despite the additional premiums received in early years.

Years ago, when the product line was new and there was little to no experience on which to base the lapse assumption, ultimate lapse rates may have been extrapolated from other product lines. Lapse rates of 3 percent or higher were not uncommon. However, it has become evident that policyholders understand the value of LTC insurance and as a result are lapsing at a much lower rate than originally anticipated. Mortality has also improved (i.e., lower death rates) over the years. Therefore, many of the rate increases on older LTC products are driven by higher persistency.

Interest

Because of the pre-funding component described above, the interest assumption is key to ensuring that the contract reserves grow enough to support the company's future liabilities.

As a result of the economic recession that began in December 2007, many companies' long-term investment earnings rates are much lower now than they were at the time of original pricing. When the premium comes in or assets in the portfolio mature, the company invests or reinvests the money at the new money rate. This rate is dependent on the current interest rate environment. Therefore, if the interest rate environment has declined (as is currently the case), the higher interest rates that were previously being earned on the older assets are replaced by the lower new money rates. This contributes to the need for a rate increase because the contract reserves held by the company to back its LTC liabilities earn less than originally expected.

Policyholders are exposed to a similar risk if you consider an alternative where individuals choose to self-fund their LTC needs instead of purchasing LTC insurance. In this case, they too would be exposed to the risk that their funds might not grow to the level needed to pay for their expected future LTC claims.

Looking forward

While understanding the mechanics behind an LTC rate increase may not make these increases any easier to stomach, there is cause for optimism.

The industry has generally seen relatively low shock lapse that is due to rate increases, which may suggest that policyholders understand the value of the product. Policyholders may have gotten a "good deal" because they had been essentially receiving a discount until the time of the rate increase. They may even continue receiving some discount going forward if the rate increase implemented is less than that needed to bring the premiums up to what they should have been if original pricing had used the revised assumptions.

As the LTC industry continues to mature, the assumptions used in pricing new business reflect the knowledge gained from past misses, which in turn reduces the future potential for some of the large rate increases seen to date. Furthermore, the rating methodology could even begin to shift toward earlier or more frequent smaller increases, rather than one large rate increase several years after the product was originally priced. ■

U.S. and French Long-Term Care practionners would benefit from the experience and knowledge of each other's market. This cross leveraging of best practice will ultimately improve both their own and the global experience of the LTC risk.

To that end the Society of Actuaries and the Institut des Actuaires are initiating a program to exchange information. Should you be interested in either participating in its activities, or being kept up to date about them, please do not hesitate to contact me. A trip to Paris is not planned at this time.

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