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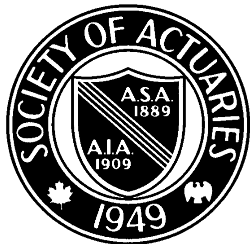

LONG-TERM CARE

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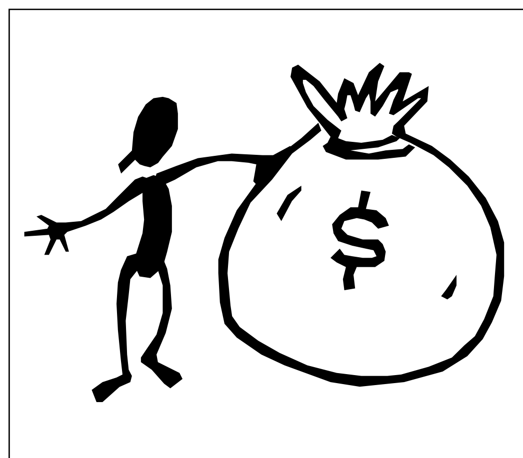
A Primer on Some LTCI Pricing Challenges

by James C. Berger & Yang Ho

Editor's Note: This article is part two of a two part article that ran in the previous issue of Long-Term Care.

Investment Earnings

Investment earnings rates are another critical factor in the profit success of LTCI. Perhaps this assumption is second in importance only to lapse rates.



Investment strategies may range from a simple melding of assets with the other lines of business to aggressive management of funds built up in the LTCI line. One of the investment risks that should see sensitivity testing is the C-3 risk of assets bought in a low interest rate environment needing to be sold in a high interest rate environment, thus developing a loss. Since the maturity of LTCI liabilities is still fairly uncertain, the assets backing these liabilities may require sale at unprofitable times. The flip side of having to sell assets at unprofitable times is being forced to reinvest the maturing assets, again at unprofitable times.

(continued on page 3, column 1)

In This Issue

	Page
A Primer on Some LTCI Pricing Challenges *by James C. Berger & Yang Ho*	1
Chair's Corner *by James M. Glickman*	2
Suitability and Long-Term Care Insurance *by Dearborn Publishing*	6
LTCI Section Council's Meeting Minutes	9
Home Health Care Experience Analysis *by Bruce A. Stahl*	10
Editors Wanted	11
Editor's Column *by Bartley L. Munson*	12
Record Sessions on LTC Topics on the Web	12

A Primer on Some LTCI Pricing Challenges
continued from page 1

Unfortunately, since no derivative securities based on lapse performance exist to hedge that great risk, sensitivity testing for the various feasible deviations from pricing assumptions will be mandatory. That should be followed by a thorough communication of the risks to upper management.

For a growing block of business, the risk of longer-than-needed durations is mitigated, but projecting rapid growth is risky for the timeframes in which these investment risks can become actualities. Corporate cashflow testing will also add to the picture, though if one only looks at inforce business, significant aspects of new business will be overlooked.

For a multi-line company, there may be other lines of business that will gain while LTCI investment returns suffer. Scenario testing is needed for the LTCI line and ideally for the corporate entity. Practicality may preclude the corporate modeling, but as a friend of mine says, "Aim high, the bullet drops on its own." One must weigh the risks of ignoring this analysis.

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RBC

Investment returns have been low recently for fixed-income securities, while the stock market has posted tremendous returns. This may tempt insurers to find added return through non-fixed-income securities.

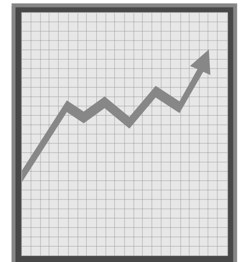
The Risk Based Capital (RBC) requirements will change as the investment mix changes, and this should impact target surplus holdings.

While there is as yet no clear model for LTCI RBC, the disability income model contains the right components. It will indicate a risk differential for the various types of securities.

The individual company should also aim to have its own evaluation of target surplus needs. It should look to regulatory and rating agency reviews as well as its own retrospective and prospective views of the nature of the LTCI risk.

Long-Term Effects

The time horizon for investment returns and for the profit objective(s) stand as items to be added to the analysis. If investment earnings rates are projected to stay at a constant, say, 7% for the life



(continued on page 4, column 1)

A Primer on Some LTCI Pricing Challenges
continued from page 3

of the policy, what happens if the Fed does keep inflation in check for the long term and investment returns for this specific investment mix never climb above 6.5% after ten years? At older ages the impact is perhaps not large, but at younger ages problems abound.

What About Lapse Rate Assumptions?

If experienced lapses are even slightly lower than pricing assumptions, profits will suffer, especially at the younger ages where errors in lapses are compounded over a longer period. Carefully consider the sales channel for the younger age business and be sure lapse assumptions are in line with what reason dictates for that channel.

A one-size-fits-all lapse assumption could be considerably wrong and state insurance departments may have little mercy.

Until a company knows what experience is saying about these assumptions, the risk-return paradigm should tell them not to encourage sales in the portions of the business that have the greatest variability, e.g., it seems questionable to offer higher commission rates at younger ages.

Once again, sensitivity analysis should be commonplace and the results effectively communicated to the decision makers about marketing, investment, etc.

Loss Ratios

A final comment about young ages has to do with the loss ratio. The nature of the loss ratio calculation means that meeting the loss ratio requirement at those ages leaves little extra for commissions and profit. Fixed policy expenses and lower average premium for younger ages mean the expense ratios as a percent of premium are higher for younger ages.

> ***"Claims assumptions at younger ages should also be viewed very carefully. Young age underwriting is not as well understood as it is at the older age, particularly for individual policies where antiselection in the thin young age segment coul be large."***

Claims assumptions at younger ages should also be viewed very carefully. Young age underwriting is not as well understood as it is at the older age, particularly for individual policies where antiselection in the thin young age segment could be large. Underwriting selection may need to use factors that are close to one initially, and grade to something higher than one.

If pricing subsidizes lower young age loss ratios with higher older age loss ratios, and the actual business mix by age turns out to be much lower than anticipated, regulators may again not be willing to listen to a company's request for rate relief.

Of course, in New Jersey the loss ratio must be specified by age and cannot have more than a 10% differential between the age with the highest loss ratio and the age with the lowest loss ratio.

Thus, in New Jersey the mix of business is not allowed to become a significant issue. This shifts the focus of the pricing exercise, since the expenses for the younger ages in New Jersey are subsidized by older age policies, with their lower expenses per policy due to fixed policy expenses.

Though inflation protection can be expected to be a larger portion of sales at the younger ages and thus increase the average premium (as well as claim), this should not be expected to remove the expense subsidy issue. If the actuary wasn't careful in the product design, regulators may have good reason to be skeptical of future filings by the actuary.

Conclusion

All these pricing concerns may be a bit overwhelming to a company or an actuary entering the LTCI marketplace, so this is one area in which a reinsurer can offer great benefit. Not only can the company lay off risk until they are more comfortable with what is required in the LTCI business, but also the expertise of reinsurers may fill the knowledge gap and may keep the com-pany from making serious miscalculations.

"Risk and reward" is the mantra of a successful business. The company that can manage their assumed risk through thorough and appropriate pricing practices will better position itself for solid results in this challenging line of insurance.

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