

## SOCIETY OF ACTUARIES

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## Long-Term Care

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## "Here We Go Again"

by Bruce A. Stahl

hen Congress tried to present too large a budget to former President Ronald Reagan for a second or third time, "The Great Communicator" replied with rising pitch and volume, "Here we go again!" I was reminded of this expression when I started to look at the market's premium rates for LTCI return of premium riders at death. The industry underpriced many riders in the past, the most memorable likely being the compounded increasing benefits, limited pay options and return of premium riders. While the newer return of premium benefits are normally limited to deaths, they are still well underpriced.

The argument for pricing a return of premium death benefit is often turned around on the actuary. The marketer will state that the return of premium is like a life insurance policy. To this the actuary may reply that the applicant can apply for a life insurance policy at the same time as the LTCI policy. Yet he is confronted with a quick retort, pointing out that the benefit is an increasing one, and that the life insurance policy benefits cannot be reduced by claims that are paid on the LTCI policy. Suddenly the benefit is not like a life insurance policy, though everyone unwittingly continues to speak as though it is.

Furthermore there is another very significant difference between the death benefit in a return of premium rider and a life insurance policy. The premiums for the return of premium rider itself are returned if no policy benefits are paid. This has a very significant impact on the required premiums. For analogy, consider what the cost of a term life insurance policy would be if the premiums were returned to those who did not die during the term (a term policy is used for analogy because a portion of term policyholders will have survived the term, just as a portion of LTCI policyholders will be claim-free until they die). The investment income from the term life insurance policyholders that survive the term, plus the investment income and premium from the term policyholders who die, would need to pay for the expenses of all the policyholders, and for the benefits of those who died. Since the premiums of the survivors would be returned, the death benefits would be paid primarily by the term policyholders who die. Obviously the premiums would be very large.

Most LTCI return of premium rider premium rates look like the premiums that would be charged when only the policy premiums are returned. The modeling is not difficult if one assumes that anyone who has a claim will have



benefits that exceed the premiums that are paid. (This assumption is not precise, yet it serves to demonstrate the point.) The premiums for the rider benefit are based on using lapses, deaths and claim incidence as decrements, and the probability of death as the probability of returned premiums at any given time in the life of the policy. Therefore the survivorship probabilities include only those who are claim, lapse and death free. To calculate the present value of benefits, the "survivors" are to be multiplied by the probabilities of death, the present value interest factors, and the increasing benefits.

If the investment income return is equal to the present value interest, the only way to pay for the benefits of the policy is with the premiums of those that have a claim under the policy rather than the rider. Ignoring the loss of the rider premium to subsidize the insurance pool, a person issued a policy and rider at age 57 may be charged about 27 percent of the policy premium. If the actuary remembers that the insurance pool is lost, the premium would be something like 400 percent instead. The correction is simple: retain the rider premium.

Four hundred percent plus the policy premium is close to four times the normally charged premium for policy and rider! That is larger a discrepancy than the single pay option mistakes that were sometimes off by a multiple of three. Here we go again!



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