SOCIETY OF ACTUARIES

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TAX LAW AND REGULATIONS

In the case of a charitable remainder unitrust, Section 1.664-4 of the Income Tax Regulations shows Table E (1), male, and Table E (2), female, which contain the factors for the present worth of a remainder interest after a single life, based on Adjusted Payout Rates varying from 4.6% to 9%.

Tables G (1) and G (2) are calculated on the basis of the LN mortality tables by applying the Yearly Rate of Return as the effective annual interest rate. For this reason the factors in these tables under the 6% Yearly Rate of Return agree with the corresponding factors in Tables A (1) and A (2), respectively, referred to in a previous paragraph.

On the other hand, it will be noted that the factors in Tables E (1) and E (2) are less than the corresponding factors in Tables G (1) and G (2). The reason for this is that the E tables are calculated on the basis of the LN mortality table by applying the Adjusted Payout Rate, but on the assumption that this rate is equivalent to the applicable effective annual interest rate payable in advance.

p = adjusted payout rate

i = effective annual interest rate

$$= \frac{p}{1-p}$$

An innovation in the new Regulations is the method set forth for valuing a remainder interest which falls in on the death of the survivor of two or more persons

$$\overline{A}_{x_1 x_2 \cdots x_m}$$

developed by the late Charles T. Kemmerer in the National Office of the Internal Revenue Service. Mr. Kemmerer, was an able attorney and self-taught in actuarial science. The method is based on Woolhouse's formula and may be found in Chapter IX of "Mathematics for Actuarial Students" by Freeman. By use of the Q and K values in the Regulations, this remainder interest can be valued for any number of persons with relative ease even on a desk calculator, and produces values which are amazingly close to the exact values. The following table shows 2-life remainder factors calculated by this method as compared with those calculated by the exact method. It is assumed that the latter were calculated as

$$\overline{A}_{\overline{xy}} = 1 - i\,\mathring{a}_{\overline{xy}} = 1 - i(\mathring{a}_x + \mathring{a}_y - \mathring{a}_{xy})$$

6% Last Survivor Remainder Factor

Male Age	*Female Age*	*Kemmerer Method*	*Exact Method*
35	25	.05535	.05535
50	40	.12534	.12535
65	55	.26203	.26206
80	70	.48806	.48805
95	85	.74586	.74594

The actuarial work which went into the new Regulations is superlative, and Robert P. White, Supervising Actuary, Internal Revenue Service, deserves to be commended for his contribution to it and for his recognition of Mr. Kemmerer's contribution. Mr. White is an attorney and an Associate of the Society. □

LETTERS

Net and Other Costs

Sir:

At the Tarrytown meeting of the New York Actuaries Club, there was a panel discussion about interest adjusted costs. That discussion, together with my own personal views on the threat of consumerism to our industry, lead me to suggest that the Society of Actuaries voice its opinion publicly for immediate adoption of the interest adjusted cost basis.

The cost of life insurance, as well as the evaluation of policy benefits or even company stature, is difficult to assess. In this age of consumerism the cost of our product was bound to be questioned, and it has been by such critics as Professor Belth and Senator Hart. After many years the industry formed a Joint Special Committee on Life Insurance Costs. This committee published its findings on May 4, 1970, observing that the traditional method could be improved by the use of the interest adjusted cost method.

The industry has been sluggish in reacting to the findings. It seems that several companies are now planning to make modest changes to incorporate interest adjusted costs into their rate information in the near future. But only two companies have actually adopted the method in the year that has passed since the committee made its report. Many companies seem to be doing nothing about it, or are outright rejecting interest adjusted costs. Now Mrs. Knauer of the Office of Consumer Affairs is making this lackadaisical attitude a consumer issue.

Instead of delaying and confusing the issue, the industry could, as was suggested at the Tarrytown meeting, adopt the interest adjusted method to forestall consumer criticisms of life insurance cost illustrations.

I suggest that actuaries, as experts in this field, should voice their opinion publicly so as to unite the industry and fend off any possible criticisms. Thus, I recommend that the Society consider an expression of its opinion in favor of the adoption by the industry of the interest adjusted cost method.

Steve Cooperstein

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(*Continued on page 6*)