TRANSACTIONS OF SOCIETY OF ACTUARIES
1962 VOL. 14 PT 2

DIGEST OF DISCUSSION OF SUBJECTS OF SPECIAL INTEREST

INDIVIDUAL LIFE INSURANCE

Adoption of 1958 CSO Table

A. What changes are being introduced with the adoption of the 1958 CSO Table? Examples of subjects that have had the attention of companies are:
   Shift from CRV to NLP reserves.
   Level and pattern of cash value scales.
   Method of determining extra charge for fractional premiums.
   Format of policies to conform with machine methods of issue.

B. What progress has been made in the enactment of the new valuation standards for disability and double indemnity benefits, and of the modification of the Standard Nonforfeiture Law treatment of term riders? What are the problems of recognizing these new bases simultaneously with the adoption of the 1958 CSO Table?

Philadelphia Regional Meeting

MR. MARTIN L. ZEFFERT: Effective November 1, 1961, the Fidelity Mutual adopted the 1958 CSO Table with a $2\frac{1}{2}\%$ interest assumption on a continuous function basis for its new policy issues. Our cash values are the full reserve after the tenth policy year, with the exception of one contract reaching such reserve by the fifth year. These cash values are obtained by a flat dollar amount deduction from the reserve, depending only upon duration without regard to plan. We felt that the adjusted premium method we were using on the 1941 CSO policies would produce inadequate cash values in the first few policy years, on the new table. The dividend scale provided quite a problem since the mortality margins released by the 1958 CSO are rather flat. In order to obtain the type of dividend scale desired a rearrangement of our loading formula was necessary.

We adopted a quantity discount basis for premium rates involving four policy bands of up to $5,000, $5,000 to $10,000, $10,000 to $25,000, and $25,000 and over. With the exception of Band I policies, the 1958 CSO Female Mortality Table forms the basis of our female rates and values. We completely rewrote our policy forms, simplifying them and reducing them in number. The policy form is so designed as to have all fill-ins on the first page, enabling the insured or the agent to readily determine what is in the contract and what it costs without even removing the policy form from its jacket. The design of the policy was made to provide for its production on a Flexowriter, which at the same time produces most of our office records.

Our policies offer a refund of any premium paid beyond the date of death, and also provide for interest on the face amount due from the date of death. We liberalized our policy language wherever possible and eliminated any unnecessary complications. Our accidental death benefit, for example, is no longer a means clause, and our disability forms use a definition of disability basically akin to that commonly found in non-cancelable A&S policies. In connection with our change, we produced an $8\frac{1}{2} \times 11$ Rate Book plus a smaller Rate and Dividend Book. The large book was constructed after 80 column punch cards containing all the values were made up in the home office.

MR. EUGENE W. BATES: The Western and Southern introduced a complete revision of its Ordinary portfolio in January 1962. Since we had not made any major revisions since 1957, we felt it would be desirable to combine the change to the 1958 CSO Table with a revision of our portfolio. We encountered many problems along the way, more because of the concurrent change in portfolio than simply the change-over to the new table.

We have been in the past a near-median premium company and it was our desire to stay slightly on the low side of the median for participating companies. In making the change-over as early as we have done, we faced the problem of trying to guess what companies would do in the next two or three years in revising their premium levels. With the adoption of the new table, it is possible, of course, to reduce premium levels for certain plans quite substantially. Our final decision was to establish our premium level to be approximately 98% of the median of participating premium rates now in effect. We felt by this means we would not be too far out of the competition even though companies might reduce their premiums on changing over to the new table.

Our gradation by size previously had been in two bands, one for under $3,000 and the other for $3,000 and up. In our new portfolio we increased the smaller band up to $4,999, and adopted the policy fee method for amounts of $5,000 and over. We now use "age last birthday" as the basis for all Ordinary, Industrial, Accident and Sickness, and Group insurance. We calculated new tables of commutation columns on the age last birthday basis both for the Benefit 5, Period 2 disability rates combined with the 1958 CSO Table and for the 1926–33 Intercompany accidental death rates combined with the 1958 CSO Table. The accidental death benefit has been extended to age 70 and a common carrier benefit has been added.

We have traditionally been a net level premium reserve basis company with cash values equal to reserves at the end of the fifteenth year. We decided to retain our $2\frac{1}{2}\%$ interest rate and adopt the continuous basis for cash and nonforfeiture values. For most plans, this kept the cash values at nearly the same level as we had previously. The 1958 CET Table was adopted for extended term insurance. In the case of the limited payment life plans with shorter payment periods, and especially for the single premium life plan, the reduction in cash values was quite marked. We found that it was not possible to stay in the same range as the competition for the single premium life plan and still maintain a dividend scale consistent with that for other plans.

We were cognizant that in order to sell business in this competitive market we must show net costs which were at least close to those of our greatest competition. In order to achieve competitive net costs, we increased the interest rate used in our asset shares to reflect our greater current interest earnings and we changed the incidence of our dividends so as to be slightly steeper. We use an experience premium method which varies by duration.

We took the opportunity in this revision to introduce several new plans of insurance and to eliminate several of the less popular ones. The new plans include a special life paid-up at age 60 plan for women, and an annual premium retirement annuity with optional supplementary term insurance. One of the new features in our guaranteed insurability rider is an option to accelerate the next normal option date on the assumption of a mortgage or upon marriage.

MR. BERT A. WINTER: The Prudential plans to adopt the 1958 CSO for new Ordinary issues as early in 1963 as possible. Reserves for 1941 CSO issues are based on $2\frac{1}{2}\%$ interest, the net level premium method, nondeduction of fractional premiums but not a pro-rata return, and claims assumed payable at the end of the year of death. Reserves for 1958 CSO issues will be similarly calculated on the new table, except that they will be on an age-last-birthday, females-rated-down-three-years basis and will make provision for immediate payment of death claims.

Cash values for 1941 CSO issues attain the net level premium reserve no later than the fifteenth policy year, currently supplemented by a terminal dividend commencing no later than the eleventh policy year. With retention of the same interest rate and the new provision for immediate payment of death claims, only minimal changes in terminal dividend scales are necessary to produce approximately the same total values as at present at the late durations of coterminous plans, although there will be reductions in total values for many issue ages and durations, both premium paying and paid-up, on limited payment plans. The allowance for excess initial expense in the cash values of our 1941 CSO issues is the same for all size bands of a given policy. Prospective asset shares for the larger size bands of our 1958 CSO policies indicate that slightly smaller initial allowances than at present are justified, and that they can be amortized over a maximum of 10 instead of 15 years. For the smaller size bands, some increases from present initial allowances are necessary, and a 15-year maximum amortization period needs to be retained.

The banded premiums for our 1941 CSO issues since the beginning of 1959 use a percentage plus a constant formula for fractional premium loadings—the percentage varying by premium mode only and the constant by mode and size band, but not by issue age or plan. The same type of formula is planned for the larger size bands of our 1958 CSO policies. For the smaller size bands, we plan to compute a fractional premium by applying to the annual premium a percentage varying by mode only. This seems more appropriate for monthly debit collection, which is expected to be the dominant fractional premium mode for the smaller size bands. It is planned to place all variable data of our 1958 CSO policies on a single page, which can be produced on large scale EDP machines on a continuous form basis, concurrently with the necessary home and field office records.

It is planned to value the disability and accidental death benefits of our 1958 CSO policies on the new standards, although it is likely that they will not have been adopted by all jurisdictions by 1963. The existing valuation bases of my Company now give aggregate reserves which exceed those computed on the minimum standards of any jurisdiction, by an amount sufficient to ensure that this will continue to be true, even if the disability and accidental death benefits of one or two years' issues are valued according to the new standards not yet adopted by some jurisdictions. The valuation factors for disability waiver of premium benefits depend, of course, on the premium waived, and it seems to us pointless to incur the additional and continuing expense of calculating and maintaining factors which combine the 1958 CSO premiums and the old standards. The premium rates for accidental death benefits included in 1958 CSO policies are planned to be lower than those now in use, so that the contribution to divisible surplus, if any, that they make will differ correspondingly. In this area as well, therefore, it is appropriate and least expensive to maintain a valuation basis separation which is coextensive with the life insurance valuation basis.

MR. FREDERICK S. TOWNSEND: In adopting the 1958 CSO Table, Valley Forge Life discarded the Commissioners Reserve Valuation Method for a modified reserve method. The new modified reserve method is in essence the Canadian Reserve Method, with the exception that the period over which the expense allowance is amortized is limited to 20 years. Cash values, for the most part, are payable on the minimum cash value basis, although some permanent policies have full net level premium cash values at the end of the twentieth policy year. All permanent policies have a cash value at the end of 2 years.

The policy fee approach was adopted for the purpose of grading premiums by policy size. Because the company is relatively new, and the ordinary operations are not yet in the black, an annual policy fee of $16.00 was adopted. To my knowledge this policy fee is higher than that charged by any other company in the industry at the moment. It was felt that (1) this is a closer approximation to our true annual policy maintenance expense than the policy fees currently charged by other companies; (2) when $16.00 becomes an excessive charge based on our actual cost, such excesses can be used to reduce losses incurred on first year writings; and (3) when the ordinary operation is paying for itself the policy fee can always be reduced from $16.00 per policy to $12.00 per policy, or some other figure. The policy fee is actually prorated over the first $4,000 of insurance. In view of this fact, the minimum size adult policy was increased from $1,000 to $2,000 thus assuring the collection of at least $8.00 annually per policy for the policy fee charged. No policy fee will be charged on juvenile policies. The annual policy fee of $16.00 is assumed to include a $1.00 collection charge. Therefore, in computing fractional premium policy fee charges, $15.00 was multiplied by the fractional premium factor and $1.00 was added to the result to obtain the total fractional premium policy fee charged. Under this assumption, the ratios of fractional policy fees to the annual policy fee are as follows: semiannual, 55%; quarterly 31%; monthly, 15%.

Policies which had experienced high lapse ratios were either eliminated or completely revamped for the new portfolio, and extra emphasis was placed on endowment plans. Renewable and convertible term policies are assessed an extra premium during the initial term period above the rate for a similar policy at the same age which is then in a renewal period. Several new riders were introduced in the new portfolio, and therefore it was decided to permit the addition of riders to existing policies, subject to certain underwriting provisions. Various reductions in the commission scale were applied practically across the board, remaining unchanged only for policies on which premiums are payable for 30 or more years.

MR. WILLIAM J. NOVEMBER: The Equitable was one of the early companies which used the IBM 705 for the issuance of policies. The basic information produced by the machine, which includes premiums and identifying information, appears on the third page of the policy. In order to show certain identifying information on the face of the policy, we have been using a short first page. This method has not proven to be too satisfactory, and we are contemplating changing to a window type of first page of regular length, with the identifying information from page 3 showing through the window.

MR. MELVIN L. GOLD: Most of my clients are new small stock companies and have a constant problem of keeping the drain on surplus from getting out of hand. Because of this, most of these companies issue nonparticipating policies with minimum cash values during the early policy years and with interest rates at about 3% or $3\frac{1}{2}$%. A difficult problem often arises when the company desires a nonparticipating policy which has a large second year cash value and grants high first year commissions. Premium rates have been based on age nearest birthday, largely because the material for age last birthday is not yet available.

MR. GEORGE H. DAVIS: This is a report of the progress of legislation in the different states to adopt the amendments to the Standard Valuation and Non-Forfeiture Laws adopted by the National Association of Insurance Commissioners in 1960. These amendments substituted modern disability and accidental death tables for the tables contained in the original Standard Valuation Law as minimum valuation standards for these benefits (with a transition period until January 1, 1966, during which both old and new tables are optional minimum standards). The Annuity Table for 1949, Ultimate was also made an additional optional minimum valuation standard for all annuities and the Group Annuity Table for 1951 a further optional minimum standard for group annuities. The amendments also changed the Standard Non-Forfeiture Law by modifying the definitions of minimum nonforfeiture values of policies with term riders and family policies.

These amendments have now become law in twenty-eight states, although in one of them, Mississippi, the law does not become effective until January 1, 1963. In two more states the laws have passed both houses of the legislature but have not yet been signed by the governor. In nine states which do not have the standard laws no amendments to existing laws are necessary to permit companies to use the reserves and nonforfeiture values permitted by the amendments.

This leaves the District of Columbia and eleven states where enactment of the amendments is still necessary. Bills have been introduced for the District of Columbia in both houses of Congress. In one of the eleven states, Louisiana, there is a 1962 session of the legislature convening in

May, and enactment of the amendments will be sought. The remaining states are Hawaii, Indiana, Kansas, Maryland, Minnesota, New Jersey, Ohio, Pennsylvania, South Carolina and Tennessee. The legislature of each of these states meets in 1963, and there seems reasonable hope that the amendments may be passed in all of them in 1963.

Amendments to permit use of the 1958 CSO Mortality Table as a minimum valuation and nonforfeiture standard for Ordinary life insurance have been passed by all of the states where such amendments were necessary. However, the amendments are not effective in Oklahoma until July 1, 1962, nor in Mississippi until January 1, 1963. Amendments to permit use of the Commissioners 1961 Standard Industrial Mortality Table as a minimum valuation and nonforfeiture standard have been enacted in Georgia and have passed both houses of the legislature and are awaiting the signature of the governor in Kentucky, New York and Virginia.

MR. HAROLD A. GARABEDIAN: This is a brief report concerning the progress of publishing the new Monetary Tables for Disability and Accidental Death Benefits, which will be needed in connection with the valuation of policies to be issued on the basis of the 1958 CSO Mortality Table.

There have been a number of delays, the longest due to IBM's difficulty in finding personnel for all of the programming and computational work. As was the case in the publication of the main 1958 CSO Monetary Tables, IBM is providing their services gratis to the Society.

We are well along with the Accidental Death Benefits job, and have reached the stage where all pages of values—143 pages to the book for each of three interest rates—have been printed out by IBM. These pages will very shortly be placed in the hands of certain New England-based companies which are cooperating with us in the checking operations. Following clearance of these sheets, a Hartford printing firm will undertake the remaining phases, which include essentially the stripping, offset-printing work and binding of the volumes. As for the Disability project, we have been promised completion of the taped programs by the end of this month. This should place the job in readiness for the computer runs and print-outs of the pages, which in turn will be moved through the checking stages and finally on to the printing firm. The Disability project is by far the more difficult and extensive of the two. Each of these books—one for each of three interest rates—involves 282 pages of functions and values.

It may be reasonably safe to say that, barring unforeseeable delays from here in, all six books will be ready for delivery by the end of the summer. It appears certain that the ADB books will be ready for delivery much earlier than the Disability books and if practicable they will be shipped separately in advance.

No provision has been made for furnishing pages in advance—a job itself of considerable magnitude and one that could mean further publication delays—nor is there any provision for furnishing tape or card libraries.

MR. TOWNSEND: I am not aware of any proposed modification of the Standard Non-Forfeiture Law with respect to the treatment of term riders; however, there are several aspects of term insurance riders which either might be changed by a change in the Standard Non-Forfeiture Law or which might prompt a change in the law, so as to define these situations more clearly. Perhaps the most pressing need is that for a definition of decreasing term insurance. Another area which perhaps should be covered by the Standard Non-Forfeiture Law is that of level term insurance provided for children under family policies, family insurance riders, or children's insurance riders. In addition, there is the question of term insurance riders which require cash values.

MR. NOVEMBER: The amendments to the Standard Valuation and Non-Forfeiture Laws contain provisions which provide solutions to a number of the problems which Mr. Townsend raised. The present law requires that a basic policy and a term rider be considered together as a single unit when determining adjusted premiums and minimum values. The mimimum values required for the basic policy are thus affected by the addition of a term rider. One of the amendments gives separate recognition to the term element so as to free the minimum values for the basic policy from its dependence on the term rider. However, under this amendment the minimum values required for the term rider still vary somewhat with the basic plan to which the rider is attached. This complication can be met by setting the values for the term rider at such a level as to recognize the values required when the term rider is added to the basic plan with which the highest minimum term rider values are associated.

Another change in the law is the exclusion from the requirements for nonforfeiture values of children's term insurance under family policies. The reference in the new law is to such term insurance expiring before age 26. The subject of decreasing term insurance on the wife under family riders is not covered in the new law.

Kansas City Regional Meeting

MR. JOHN H. FLITTIE: Guarantee Mutual made the switch to the 1958 CSO Table in April 1961. Prior to this, in January 1961 we came out with three pilot model policy forms on several new plans of insurance. Our biggest change was from curtate to continuous functions for both insurance benefits and premium payments. We continued at an interest rate of $2\frac{1}{2}\%$.

We switched from minimum cash values to cash values considerably above the minimum. Our new cash values grade into the full net level premium reserve at the end of 15 years. Early cash values are considerably in excess of those on our prior 1941 CSO series. Later cash values on protection type plans are quite consistent with the 1941 CSO cash values of our previous rate book.

We also switched from CVM reserves to a modified preliminary term system which has the CVM reserve the first year and grades into the net level premium reserve at the end of 15 years.

Slightly lower gross premiums emerged on most plans of insurance, particularly on protection type plans. This maintained our position as a low gross premium mutual company.

We switched from a flat dividend scale to a steep scale produced by the use of select expense factors in the dividend formula. This produced considerably lower dividends in the early years and considerably higher dividends in the later years, resulting in a lower net cost for persisting policyholders.

We adopted the CET Table and are granting extended term insurance to substandard classes through Table 2, or up to $6.00 per thousand flat rating.

In the course of these changes we eliminated many plans which had been in prior rate books, cutting down from 39 plans to 19.

We adapted the format of our policies to mechanical issue on a continuous form basis. All fill-in data including those pertaining to riders are shown on page 3 of the basic policy, which is the continuous form. A window is cut through page 1 so that data such as name of insured, issue date, face amount, and policy number are visible from the face of the policy.

MR. WILLIAM H. PHILLIPS: The Aid Association for Lutherans went to the 1958 CSO Table on January 1, 1962. We made a number of changes but I am only going to discuss the method used in determining the extra charge for fractional premiums.

Prior to the adoption of our 1958 CSO rate book we provided for the extra charge on fractional premiums in the traditional way by a percentage of the premium. Specifically, our quarterly premium was .26 times the annual premium.

The adoption of the new mortality table afforded an opportunity to review all practices affecting equity between classes and sizes of policy. Gradation of premiums by size of policy by the use of the policy fee method as well as the recognition of lower female mortality by means of the female credit were steps in the direction of greater equity.

In giving consideration to the extra charge for fractional premiums we reached the conclusion that the cost of collection is essentially a per policy, per collection cost independent of the size of the policy or the size of the premium. To disregard this fact could create greater inequities than those resulting from not grading premiums by size or from disregarding the superior female mortality. To give the policyholder the benefit of buying a larger amount of insurance and to give the female purchaser the benefit of lower mortality logically leads to giving the policyholder the benefit of any savings in collection costs. The percentage of premium method overcharges on the larger premiums and undercharges on the smaller premiums.

Our solution was as follows. From our expense analysis we derived a collection cost of 50 cents. The annual premium was assumed to include the cost of one collection. The quarterly premium was defined as .255 times the annual premium, plus 40 cents. This provides an additional $1.60 per year for collection costs, slightly in excess of the required $1.50.

MR. GEORGE H. DAVIS repeated the discussion on section B which he had given at the Philadelphia regional meeting.

MR. WILLIAM J. NOVEMBER reviewed a discussion presented by Mr. Harold A. Garabedian at the Philadelphia regional meeting.