TRANSACTIONS OF SOCIETY OF ACTUARIES
1960 VOL. 12 NO. 32

Dividends

A. What are the merits and demerits of alternative plans for reflecting in dividends the new Federal income tax basis for qualified pension plans involving individual policies and for annuities purchased by Section 501(c)(3) organizations? What considerations affect the treatment of a policy for dividend purposes after it has been purchased from the trustee by a withdrawing employee?

B. To what extent (and why) does the rate of excess interest allowed on supplementary contracts with life contingencies differ from that on supplementary contracts without life contingencies or that on accumulated dividends?

C. To what extent has it been found practicable to pay dividends on supplementary contracts with life contingencies after the expiry of any certain periods? What has been the experience with the problems involved in (i) decreasing dividends or (ii) dividends that do not decrease?

MR. CHARLES A. YARDLEY reported that the new series of policies introduced by the New England Mutual last July provides for payment of dividends on all settlement options. Under their present dividend scale adopted at that time the dividends payable on these settlement options are level amounts. Each monthly payment, including the first, receives a dividend that does not change either during or after the certain period unless the dividend scale is changed. This new system of paying settlement option dividends was also applied to new settlements on all policies issued during the last fifteen years. Little or no dividend was justified on the earlier issues with more liberal guaranteed incomes.

The dividends were obtained by first calculating the income that could be paid using current interest rates and mortality experience. The actual dividends paid are somewhat below the amounts that could be paid on the basis just described. In these days of declining mortality rates among annuitants a somewhat conservative dividend basis on settlement options will permit fewer changes in the dividend scale.

They expected some inquiries or complaints from those who were already receiving dividends on the previous basis, but so far none have reached the home office. Another problem might be created in sales proposals that illustrate incomes to be payable many years from now. A decreasing settlement option dividend is difficult to show concisely in a proposal. However, there is a danger that the total income including the level dividend may appear in some sales presentations without a proper explanation of the nature of the figure exhibited.

On the other hand, the level dividend system permits the company to guarantee a life income that probably will not result in a loss and at the same time provides the policyholder or his beneficiary with a level income

that is both attractive and competitive with single premium annuity rates being offered at the time the income is elected. This system has the further advantage of eliminating the annual changes in the amounts of the income checks necessitated by the decreasing dividend method. When the level dividend system is used, the amounts not paid out in the early years are available as a cushion against future adverse experience. This amount is included with other surplus in the annual statement, and it must be considered when the dividend scale is revised. After a change in scale the dividends will depend not only on age but also on the year of issue block in which the income began. They do not feel that this is a very serious problem, particularly since dividend scale changes are expected to be infrequent.

Mr. Yardley commented that the average period over which payments are made under life income options is considerably longer than under the installments certain options. An interest rate similar to that paid on insurance policies, namely one that fluctuates less widely than that for dividend accumulations, seems preferable for the life income options, which are long-term contracts. Their 1959 dividend scale provided 3.35% interest for both types of supplementary contracts, but their present scale has increased this rate to 3.65% for supplementary contracts without life contingencies and for dividend accumulations, while the rate for contracts with life contingencies has remained at 3.35% both during and after the certain period.

MR. BERT A. WINTER felt that it was fundamental that any voluntary additional payment for supplementary contracts should be based on the excess, for a class of contracts with similar guarantees, of the accumulated considerations less accumulated past guaranteed and voluntary payments and expenses over conservative provision for future guaranteed payments and expenses. In conformity with this principle, and to give the beneficiary a fair choice among the options available to her, it would seem that interest earnings on the deferred portion of the life income option, as well as on the installments certain, should be taken into account.

For this reason, the Prudential has been making level additional payments during the certain period of the life income option, based on the reserve for the deferred annuity. For dividend periods ending in 1960, these are based on the assumption that, during the first five years of the certain period, experience is according to a-1949 mortality, projected 10 years by scale B, and $3\frac{1}{2}\%$ interest. This interest rate is also allowed currently on supplementary contracts without life contingencies, in spite of the tax discrimination discussed below.

Achieving consistency among the options available to the beneficiary

is made more difficult by the provisions of the Life Insurance Company Income Tax Act of 1959, which permit to be excluded from taxable investment income the interest contained in all payments—guaranteed or voluntary—on supplementary contracts without life contingencies, but treat reserves for supplementary contracts with life contingencies as life insurance reserves and include voluntary additional payments in a severely limited dividend deduction. Even if the general limitations on the dividend deduction cannot be made less severe, greater consistency among options could be achieved if the law were amended to provide that reserves for supplementary contracts with life contingencies be treated like reserves for qualified pension plans. This consistency argument is additional to the basic argument for such a change—that the interest in annuity payments is taxable to the individual payee, in contrast with the interest in life insurance death claim payments.

MR. DATON GILBERT stated that the Connecticut Mutual has not paid dividends on supplementary contracts with life contingencies after the expiry of any certain period. However, they have developed another method dealing with the problem posed by improved investment returns and the resulting liberalizations in single premium immediate annuity rates.

The approach has been to make available on a current practice basis "adjusted" life income settlement rates reflecting the present rate structure for single premium immediate annuities. These are available to payees under policies of the 1941 and subsequent editions actually maturing currently by death, endowment, or surrender. They are used whenever the "adjusted" rate is more favorable than the corresponding rate guaranteed in the policy. Once the rate has been applied, the resulting income payments become guaranteed except for the customary surplus interest payable during any certain period. These "adjusted" rates are not guaranteed for use with future maturities.

"Adjusted" life income settlement rates were first adopted by the Connecticut Mutual at the beginning of 1957. On January 1, 1960 a new basis for such rates was introduced. The general approach followed in determining the new rates was as follows:

1. *Adjustment for Nonpayment of Commissions.* Since commissions are not paid when policy proceeds are applied under income settlements, the rates for the corresponding form of single premium immediate annuity were reduced accordingly. No further adjustments were made for nonpayment of premium taxes, expense allowances, etc., in recognition of the reverse effect of investment of premium money in past years when rates of return were less favorable.

2. *Adjustment for Participation during Certain Period.* Their single premium immediate annuities are nonparticipating, whereas any life income settlement involving a certain period participates through surplus interest payable during such period. Thus, a reasonable present value charge was introduced for settlements involving this feature.

Illustrative monthly life incomes (with 120 months certain) per $1,000 of policy proceeds are as follows on the new "adjusted" basis and on the guaranteed basis included in currently issued policies:

Sex	Age	1960 "Adjusted" Rates	Guaranteed Rates in Current Policy Issues
Male	65	$6.34	$6.16
Female	65	5.67	5.48

MR. HARRY WALKER opened with a discussion of the Equitable of New York's practices. As to individual policies purchased under a qualified pension plan and individual annuities purchased by Section 501(c)(3) organizations, they reflect the favorable tax treatment in the dividends apportioned to each individual contract. This approach is used because the favorable tax treatment continues to apply even if the individual contracts cease to be part of the original plan and because, in the case of a Section 501(c)(3) annuity, the additional dividend should go to the individual employee since the premium is considered as additional compensation.

The Equitable bases the excess interest dividends for dividend deposits and supplementary contracts without life contingencies on the excess of 3.50% over the guaranteed interest rate. Mr. Walker stated that the difference between the net earned interest rate before taxes and 3.50% just about pays for expenses and for the 52% tax on the difference.

Dividends for supplementary contracts involving life contingencies are based upon an interest rate of 3.30%, since the Equitable is considering funds involving life contingencies (both annuity-certain and deferred annuity) as life insurance reserves which do not receive the favorable tax treatment accorded to dividend deposits and supplementary contracts without life contingencies.

Under their more recent series of policies, where they are satisfied with the mortality basis used for the life income settlement, the Equitable's 1960 dividend scale provides for excess interest dividends on the entire fund (annuity-certain plus deferred annuity), and these excess interest

dividends are continued during the lifetime of the payee after the end of the certain period. This produces decreasing dividends which to Mr. Walker's knowledge have not caused any particular difficulty. He pointed out that the policy forms of most of their recent series of contracts include language that implies the apportionment of dividends as earned during the entire lifetime of a supplementary contract with life contingencies.

Under their older series of policies they feel that the liberal mortality basis justifies the limitation of excess interest dividends to the annuity-certain portion of the fund. Under these older series the policy language clearly provides for excess interest during the certain period only, with the excess interest applied to the present value of the annuity-certain.

MR. WILLIAM BAILEY of the Massachusetts Mutual presented two arguments for not paying special dividends on pension trust policies: first, that had a tax break not been given to such policies, taxes on the balance of the ordinary policyholders might have been lower to produce the same aggregate tax; and, second, that the extra expenses associated with pension trust policies may approximately offset the tax credit.

If extra amounts are to be paid to pension trust policyholders, the question arises as to whether the regular dividends should be increased or whether special payments should be made in addition to the regular dividends. Those companies which have a separate policy series specifically for pension trust business may lean toward increasing the regular dividends, whereas those companies utilizing their regular policy series for pension trust business may prefer using the special payment approach. The extra payment might be made as of a fixed date of the year, which is the current thought of the Massachusetts Mutual, or as of the policy anniversary. Although increasing the dividends on pension trust policies does not appear to present any legal problems, the making of a special payment may. Mr. Bailey stated that it was his understanding that even where a special payment is made, it must be considered as a dividend, and as such must be made annually and the usual dividend options must be made available to the policyholder. Having to make the dividend options available could lead to annoying administrative problems, especially where the distribution date does not coincide with the policy anniversary.

An advantage of making a special additional payment might be that it would make more of an impression on the employer; however, other ordinary policyholders will be more likely to notice the special treatment being afforded pension trust policyholders and feel that some inequity is involved. Also, what is a small percentage variation in the regular dividend may represent a relatively large percentage variation in a special payment. An advantage of the special payment method would be that

each change in the tax credit would not require a new dividend scale to be computed and published. An advantage of increasing the dividend is that it would avoid the necessity of setting up an independent routine for making the special payments. Also, there would be no administrative headaches in connection with the dividend options, as there might be if a special payment were made. Theoretically, some distinction should be made in the amount of the refund depending on whether or not the policy was in force as of both of the year-ends involved in calculating the tax credit.

In conclusion, Mr. Bailey made three suggestions:

(1) that, in the case of a mutual company, the interests of the other policyholders be very carefully considered when pension trust business is being given special treatment;
(2) that some experimenting be done to see whether or not it would be advantageous to strengthen reserves under pension trust policies in order to obtain a larger tax credit and perhaps in turn to obtain a better over-all net cost on pension trust policies;
(3) that consideration be given to the possibility of modifying the Convention Blank to display the allocation of incurred federal income tax in the Analysis of Operations by Lines of Business.

MR. WARREN A. CARTER mentioned some of the practical experiences of the Teachers Insurance and Annuity Association in paying dividends on all annuities and supplementary contracts, both involving and not involving life contingencies, during both the certain period and the period of life contingencies thereafter, where such dividends have been earned. Up until about 5 years ago, their dividend scales provided for decreasing dividends, since the dividend was the excess of the dividend interest rate over the contractual rate applied to the annuity reserve. In view of an increasingly unfavorable policyholder reaction to the decreasing dividend scale, they changed to the level dividend scale about 5 years ago. The general theory in calculating the amount of dividend payable was to take the excess of the contractual reserve over the dividend reserve and apply that amount to purchase an annual annuity based upon the dividend interest and mortality assumptions for the type of annuity involved. He pointed out that their mortality guarantees in deferred annuity contracts were more conservative than the mortality rates actually being used for current maturities of the same contracts. This practice enables them to adjust their maturity settlement rates to keep pace with mortality improvements without overhauling their rate structure. They found that the mortality basis appropriate for dividends was very close to the mortality basis then being used for maturities.

They hoped to be able to maintain the same scale for several years, but substantial increases in the earned interest rate in recent years and promise of further increase has led to raising the scale. The approach used in increasing the scale was to calculate an additional dividend annuity purchased by the difference between the previous and current dividend reserves. The new dividend could then be expressed in the form of $A \times$ (previous dividend) $+ B \times$ (contractual periodic annuity payment). This approach has a very practical advantage in that both the A and B factors can be applied regardless of the original rate basis on which the contracts were written, since regardless of the original contract basis all annuities have been previously valued on the same dividend basis. For cases not already receiving dividends, suitable tests would have to be made to determine whether dividends were now payable. It should be noted that whereas a straight life annuity and a certain and life annuity when issued in the same year to a person of the same age will have the same attained age and remaining duration regardless of rate basis, in the case of installment refund annuities separate A and B factors must be worked for each rate basis since under different rate bases the guarantee period will be different even though the age at issue is the same. Companies with a full complement of the latest electronic equipment available may find the calculations less of a problem than in the past.

Where the mortality bases in the dividend and the contract are different, suitable cognizance must be taken of the effect of taking differences at the older ages in the tables. Because of the manner in which the mortality rates approach the value of 1 and also where the terminal ages are not the same in both tables, suitable adjustments must be made at the extremely high ages. One solution is to place a limit as to the maximum dividend in terms of the dividend calculated for a specific age.

In conclusion Mr. Carter said that the important step is to determine whether there has been a distributable gain from a particular group of annuities. Once this has been done the balance of the work involves the derivation of as simple a calculation formula as possible, consistent with equitable treatment of the several classes.

MR. MARTIN L. ZEFFERT remarked that the Fidelity Mutual increased its distributive rate of interest on accumulated dividends from 3.15% to 3.5% effective February 1, 1960. At the same time the rate on supplementary contracts without life contingencies was increased from 3% to 3.4%. The 3.4% rate is also applied during the certain period of supplementary contracts with life contingencies arising from policies issued since January 1, 1948. They were reluctant to extend this higher

interest rate to the older life income settlements primarily because of the uncertainty concerning the adequacy of the annuitant mortality basis.

Most of these funds are subject to withdrawal and it is expected that the new interest rates will be high enough to prevent serious withdrawals. Withdrawals to date have been kept at a relatively stable level.

While there may be some argument for higher rates for supplementary agreements than for dividend accumulations because of different expense levels, practical considerations in dealing with the agency force tend to keep the rate on dividend accumulations at a maximum.