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FLEXIBLE FUNDING OF GROUP ANNUITY CONTRACTS THROUGH SEPARATE INVESTMENT ACCOUNTS

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THE most recent development in group annuity product design is the separate investment account. It follows in the wake of such prior developments as the deposit administration fund, the immediate participation guarantee, and the investment-year method of allocating investment income.

All these developments have been in the direction of increasing the flexibility in funding available to an insured pension plan without adversely affecting the experience of a company in any of its lines of business or impairing the strength of its guarantees. The fund-type contracts permit such things as advance discount for employee turnover, allowance for progressive salary structures, and variations in incidence and level of premium deposits to fit the business exigencies of the contractholder. The investment-year method of allocating investment income, by reducing the opportunities for investment anti-selection by the contractholder, permits further relaxation of restrictions which limit the extent to which he can adapt his payments to the financial condition of his business. Now the separate investment account will enable the insurer to provide flexibility in the type of investment in which insured pension funds are accumulated.

A major factor contributing to the rise in popularity of the noninsured pension plan during the past decade has been the fact that the equity investments by an insurance company have been limited, both by law and by the nature of the bulk of contracts which are supported by the general investment account, to a much smaller proportion than many a pension buyer has thought reasonable. Because of rising living standards and costs, many pension plan benefit levels have required revision from time to time. Some employers, to reduce the need for such revisions in the future, have adopted plans which include to varying degrees an automatic adjustment to meet changes in living costs such as the final average, cost-of-living, or equity annuity plans. To provide the funds to make these adjustments and to reduce the burden of an increasing pension roll, many an employer has allocated part of his pension contributions to common stock investments whose growth in value, he feels, will parallel the growth of pension obligations.

To attain the objectives of larger common stock investments or greater

flexibility in the timing of contributions, an employer must assume greater responsibility for the adequacy of funding levels under either the insured or noninsured form of financing. Increased freedom in establishing funding patterns and levels is accompanied under both forms by decreased assurance for the working employee that there will be adequate funds to provide his pension when he retires. Under insured plans, benefits purchased for the employee on retirement are guaranteed as long as he lives and do not depend on the employer's maintenance of satisfactory funding or the continued existence of the plan. Under noninsured plans, the retired employee, like the active employee, must rely for his benefits upon the strength and size of the pension fund and the ability of his former employer to make up any deficiencies in funding.

The purpose of the group annuity contract with a separate investment account is to provide the flexibility in the type of investment used for advance funding sought by many pension buyers without the complete loss of insurance company guarantees to an individual once he has retired.

The Separate Investment Account

The separate investment account is an asset account to which are assigned the assets arising from a particular type or types of business. It is supported by the flow of funds from the type of business involved and from the investments in the account. Income to the account is made up of amounts paid in by the contractholders which by the terms of the contract are to be placed in the separate investment account, the interest and dividends earned by the assets in the account, and any capital gains arising from such assets. Outgo from the account is made up of amounts withdrawn to provide benefits under the contract, the expenses of operating the account and administering the business which supports it, and any capital losses arising from assets in the account. While the separate investment account provides the means for measuring the performance of the segregated assets therein included, the insurer's rights and obligations of ownership and managerial responsibilities are no different than those applying to the general investment account.

The separate investment account concept is a broad one which extends beyond its application in the field of pensions. Theoretically, it could have many uses. Carried to the extreme, it could break down a company's general investment account into a multitude of separate investment accounts, each related to a small class or subclass of business. However, such a widespread use would materially weaken the foundations upon which most insurance company contracts are based. Many of the advantages of pooling of investment experience and dollar-averaging would be

lost. The pattern of surplus needs would be substantially altered and the over-all level probably increased. It would undoubtedly result in a higher level of investment and administrative expense. The compartmentalization of investments could be expected to produce a higher aggregate of uninvested funds at any moment of time, and a lower over-all yield than would be the case with a single account.

The separate investment account has a definite place in situations where contractual benefits are directly related to investment performance and where a wider latitude in type of investment than is permitted the general investment account is appropriate. These circumstances are clearly present in both the variable annuity and in the advance funding of pension plans involving the purchase of fixed benefit annuities at retirement. Basically, under the variable annuity the amount of income payable to the annuitant directly reflects the investment results of the separate account with which it is associated. Many adaptations of the variable annuity principle may involve some of the attributes of the fixed-dollar type of annuity such as guarantees of mortality and expenses or a floor below which it will not vary. Variable annuities may be written on either the individual or the group basis and may be used as a vehicle for qualified pension plans. In contrast to the variable annuity, under a flexible funding group annuity contract only that part of the purchase fund accumulated prior to retirement from employer contributions allocated to the separate account reflects the investment results of the account, and annuity payments do not vary in accordance with such results. While the motivation under both such coverages has been the desire to utilize a higher proportion of common stock than would be appropriate for the general investment account, the use of the separate investment account does not need to be restricted to situations where the primary interest is in equity investments.

The separate investment account can also mark out categories of business where investment or management policies which differ from those applicable to the rest of a company's business are appropriate. For instance, investment in growth stocks or municipal bonds might have a greater or lesser degree of attractiveness to a portfolio backing pension fund accumulations than to one backing the reserves and guaranteed cash values of individual life and endowment policies. Investment policy within a separate account can be modified to recognize the difference in the federal tax law, as applicable to investment income and capital gains, between funds associated with qualified pension plans and those applicable to other life insurance company business. Maturity dates and liquidity within the separate account can be adjusted to reflect expected variations

from the pattern of flow of funds anticipated under the general account. Also, management policy concerning the desirable level of company surplus can be modified to reflect a different type of guarantee in the contracts whose funds flow into a separate investment account.

Application to Group Annuities

For purposes of discussion of some of the principles and problems involved, there is outlined below a program for adapting the separate investment account concept to the limited use of providing flexibility in the type of investment in which pension funds insured through group annuity contracts are accumulated. Essentially, although with some variations, it is the program of the John Hancock Mutual Life Insurance Company.

A standard group annuity contract is used into which is introduced the definition of a "separate deposit fund" and provisions relating thereto. The basic contract form can be deposit administration, with or without immediate participation guarantee, deferred annuity with supplemental benefits at retirement provided from the fund, or terminal funding with all advance funding done through the separate deposit fund.

The separate deposit fund is tied into the separate investment account by its definition as "the Fund which participates directly in the investment experience of the Separate Investment Account." In turn, the latter is defined as "the separate investment account maintained by the Company for pension contracts in accordance with Chapter 175, Section 132F of the General Laws of the Commonwealth of Massachusetts." Thus the separate deposit fund of a particular group annuity contract represents that contract's share of the separate investment account. It should be noted that while the Massachusetts law makes provision for only a single separate investment account, it permits the establishment within such account of such classes of investment as the company may determine. Thus, the separate deposit fund in the separate investment account may be made up of several subdivisions corresponding to different classes of investment.

In essence, the separate deposit fund is a deposit administration fund with a guarantee that the investment income allocated to it will follow the performance of the separate investment account and that the unused balance of the fund at any point of time will be based on the market value of the investments in the separate account substituted for the traditional guarantee of a fixed interest rate and integrity of principal. It is used to purchase guaranteed annuities on retiring lives. To facilitate the mechanics of handling, where there are both a deposit administration fund and a separate deposit fund, all purchases are made from the deposit adminis-

tration fund and transfers are made to it from the separate deposit fund as needed. Otherwise, purchases are made from the separate deposit fund. Rate guarantees are associated with such purchases.

Where there are both a deposit administration fund and a separate deposit fund, the contractholder is given the right to specify what portion of his contributions shall go to each. The contractholder can also specify what portion of the amount going into the separate deposit fund is to go into each investment class. He can change the proportions going into the deposit administration fund and the separate investment classes on adequate advance notice.

If the plan is contributory, the employee contributions must go into the deposit administration fund or into the purchase of deferred annuities. Thus, employee money has the traditional type of guarantee attached to it. When an employee is entitled to a refund on termination of employment he gets his full contributions back with a pre-stated rate of interest and without diminution if the market is in a period of decline. This avoids the misunderstandings that might occur if his contributions were subject to the ups and downs of the market.

Transfer-of-Fund Provision

The conditions under which a transfer of a separate deposit fund would be made are similar to those for the transfer of a deposit administration fund; that is, the existence of a continuing qualified plan for the employees of the contractholder in force with another insurance company or trustee to whom the transfer can be made. However, due to the fact that all expenses and market adjustments have been charged to the fund, there is no deduction from the fund in determining the amount to be transferred nor is there an instalment payment requirement. The requirement of a continuing qualified plan for the employees of the contractholder in order to exercise the transfer provision, in addition to assisting in qualifying the plan under the Internal Revenue Act, makes it clear that the separate deposit fund is a part of a pension plan and not a pure investment medium such as a mutual fund or an investment company.

The transfer-of-fund provision associated with a separate deposit fund presents some special problems, since determination of the amount to be transferred may depend on a valuation of the fund at a time of unsettled market conditions and liquidation of securities in the separate investment account may be involved. For this reason, special conditions of transfer are needed. These include reasonable advance notice by the contractholder of intention to utilize the transfer provision and the right of the company to defer making transfer after expiry of the notice period under

certain circumstances. Such circumstances include periods when banks or securities exchanges are closed, there is restricted trading in securities, or when situations beyond the control of the company make the disposal of securities or the valuation of the separate deposit fund not reasonably practical.

In addition, provision is made that if the company determines that the amount and character of any securities to be disposed of in order to make a transfer are such that the disposal could not be accomplished in an orderly manner without undue sacrifice as to price or without undue expense, it may defer the making of a transfer for such period as it deems necessary, with the amount to be transferred being determined on the date of transfer. In order to maintain flexibility for the contractholder under such circumstances, an alternative is provided. At his request, the company will determine the securities it would otherwise dispose of in order to make the transfer and segregate them into a separate investment class for accounting purposes. In this way the transfer can be made at the time of the contractholder's choosing without having an adverse effect on any other participants in the separate account, since any sacrifice in price or undue expense would be charged to the separate investment class of the fund awaiting transfer and be reflected in the transfer value.

In order to give the contractholder the same degree of flexibility which he would have under a split-funding arrangement utilizing a trust fund during the accumulation period, provision is also made for transfers at his request of amounts in the separate deposit fund from one class of investment to another within the separate investment account. In order to avoid distortion of investment programs, reasonable notice is required and a limit is put on the amount that may be so transferred within any twelve-month interval.

Valuation of the Fund

The flow of funds into and out of the separate deposit fund is expressed in dollars, and both the separate deposit fund and the separate investment account are carried at all times at current market value. As a matter of practice, valuations of the separate deposit funds and the separate investment account are made monthly. The normal flow of funds is considered as taking place on the next ensuing monthly valuation date, but provision is made for interim valuations under unusual circumstances. Contractually, the balance in the fund at any time is determined by the company in accordance with established procedures for separate deposit funds in its separate investment account, and such determination is conclusive.

As far as the periodic valuation of the separate investment account

goes, all items can be secured directly and independently of items affecting the general investment account except for expenses, both investment and administrative. The allocation of these items between the two accounts can be determined from time to time by cost analysis studies made in the areas of investment and group annuity operations. From these studies, formulas can be developed for making a charge for expenses to the separate investment account in its monthly valuation.

The mechanics of valuation of the separate deposit fund, like those of the separate investment account, are based on the techniques of fund accounting, that is, the historical accumulation of premium income, investment income, and asset gains less expenses, benefit payments, and asset losses. While premium income and benefit payments for each fund are directly accounted, it is necessary, in moving from one valuation to the next, to allocate to each separate deposit fund its share of investment income received, investment and administrative expenses incurred, and changes in market value of assets experienced during the period by the separate investment account.

The total investment income, investment expenses, and changes in market value of assets of the separate investment account are distributed to the various separate deposit funds in proportion to the current market value of the funds at the immediately preceding valuation date. Administrative expenses are allocated in accordance with a formula developed by cost accounting methods applied to the expenses of the group annuity line.

The allocation of investment income and asset gains and losses can be shown in the simple valuation formula

$$V_n^{(l)} = V_{n-1}^{(l)} + F_n^{(l)} + \frac{I_n}{V_{n-1}} V_{n-1}^{(l)} + \frac{G_n}{V_{n-1}} V_{n-1}^{(l)} - \frac{L_n}{V_{n-1}} V_{n-1}^{(l)}$$

where

$V_n^{(l)}$ = market value of separate deposit fund l at end of valuation period n,

V_n = market value of separate investment account at end of valuation period n,

$F_n^{(l)}$ = net flow of funds (whether positive or negative) other than from investment operations, into separate deposit fund l during valuation period n,

I_n = investment income received from assets in the separate account during valuation period n,

G_n and L_n = increase and decrease, respectively, in market value of assets in the separate account occurring during valuation period n.

Since the financial status of the fund is based on market values, there is, theoretically, no current gain or loss to the fund at the time of sale of a security held in the separate account. However, with periodic valuations it becomes necessary to include in the next valuation as increases or decreases in market values any differences in value at the time of sale from that at the time of the last valuation.

In order to provide the contractholder the opportunity of selecting for his own accounting any of the several recognized methods of valuing assets for pension funding purposes, it may be desirable to maintain book values and appreciation and depreciation accounts in the separate deposit fund and separate investment account. If this is done, book values will require adjustment at the time a gain or loss is realized through the sale of a security. Since the gains or losses realized will have already been reflected in the adjustment to market values, the appreciation or depreciation will automatically be reduced by the amount of such gain or loss, and there will be no effect on the market value of the fund ($V_n^{(l)}$). A number of methods, differing in complexity of operation and degree of precision, can be developed to separate the current market value into book value, appreciation and depreciation accounts. One method that has been found practical involves the allocating of realized gains and losses to the separate deposit funds in proportion to the accumulated appreciation and depreciation, respectively, of such funds. With this approach, the valuation formula for the separate deposit fund would become

$$V_n^{(l)} = \left[BV_{n-1}^{(l)} + F_n^{(l)} + \frac{I_n}{V_{n-1}} V_{n-1}^{(l)} + P_n^{(l)} - R_n^{(l)}\right] + \left[A_{n-1}^{(l)} + \frac{G_n' - L_n'}{V_{n-1}} V_{n-1}^{(l)} - P_n^{(l)}\right] - \left[D_{n-1}^{(l)} + \frac{L_n'' - G_n''}{V_{n-1}} V_{n-1}^{(l)} - R_n^{(l)}\right],$$

where

$$P_n^{(l)} = \frac{P_n}{A_{n-1} + G_n' - L_n'}\left[A_{n-1}^{(l)} + \frac{G_n' - L_n'}{V_{n-1}} V_{n-1}^{(l)}\right]$$

$$R_n^{(l)} = \frac{R_n}{D_{n-1} + L_n'' - G_n''}\left[D_{n-1}^{(l)} + \frac{L_n'' - G_n''}{V_{n-1}} V_{n-1}^{(l)}\right]$$

and where

$BV_n^{(l)}$ = book value of separate deposit fund l at end of valuation period n,

$A_n^{(l)}$ and $D_n^{(l)}$ = accumulated appreciation and depreciation, respectively, in value of assets credited to separate deposit fund l at end of valuation period n,

A_n and D_n = accumulated appreciation and depreciation, respectively, in value of assets in separate account at end of valuation period n,

P_n = excess of sale price over cost of securities in the separate account disposed of during period n,

R_n = excess of cost over sales price of securities in the separate account disposed of during period n,

G_n' and L_n' = that portion of G_n and L_n, respectively, arising from securities for which at the previous valuation market value exceeded cost, and

G_n'' and L_n'' = that portion of G_n and L_n, respectively, arising from securities for which at the previous valuation cost exceeded market value.

The expression in the first bracket is the book value; that in the second, the appreciation; and that in the third, the depreciation account.

In making valuations it is necessary to determine current market values of all securities in the separate investment account. Under normal circumstances, this is a simple task for that part of the portfolio which is invested in actively traded securities. In the case of securities for which there is not a readily recognized market with frequent quotations, it is necessary to assign comparable values. This can be accomplished by evaluating them at yield rates at which securities of comparable quality, characteristics, and maturity are currently being sold.

In making the valuations of the separate investment account, each such account or investment class included therein is treated as a separate unit independent of any other separate account or class. If a separate deposit fund is participating in more than one investment class, the allocation to the fund of the results of each such class is made separately based on the extent of the participation. Thus, a fund which was participating in two investment classes would be handled mechanically as though it were two separate funds for the purpose of allocation.

Relation to Investment Year Allocation Methods

It is interesting to consider the relationship between the results of an investment-year method used in the general account and those of a market-value method used in the separate account for allocating investment income and capital gains and losses. Both are sensitive to market yields

at the time funds are received or paid out. However, they differ in the way in which they pool experience. In the investment-year method, the current income and gains and losses from the investments of a prior calendar year are related to the flow of funds for that year with suitable adjustment for intervening reinvestment. Thus, the unit for pooling experience is basically the calendar year. Under the market-value method there is no separation into calendar years, and the entire portfolio of the separate account or investment class is the unit for pooling experience. A deposit made under the market-value method is buying into the future experience of past investments as well as current and future investments but is unaffected by the past experience of past investments. In effect, the market-value method is a portfolio average method with the total portfolio valued at current market price and the various funds continually adjusted for the change in market values of the assets behind them. Over a long enough period of time and with a wide spread of investments of the type usually appearing in the general account, the results of the investment-year method and those of the market-value method are approximately the same although not identical. Mechanically, the investment-year method is easier to handle since it does not require regular and frequent re-evaluation of the entire portfolio. However, the market-value method seems more suitable in connection with a separate investment account or class where all the securities are of one type and where the contractholder has a wide and continuing choice in channeling his funds into and out of the class.

Maintenance of Equity

The basic principle to be followed in making the many decisions involved in setting up a flexible funding program for insured pension plans through separate investment accounts should be the maintenance of equity and avoidance of discrimination in every particular between items entering the separate account and those entering the general account. It is helpful in doing this if the separate deposit fund is kept in its proper perspective as a part of a group annuity contract, and the separate investment account is considered as a part of the company's total asset account.

Purchase Rates and Guarantees

The money paid into a separate deposit fund is going to be used ultimately to provide guaranteed annuities on retiring lives. At the time this is done it should be on a basis which puts these annuities on a par riskwise with similar annuities which have been funded through other forms of group annuity contracts. This would involve the use of interest,

loading, and mortality factors in determining the purchase rates which are consistent with those used elsewhere in the group annuity rate structure with suitable modification to reflect any essential differences. Such differences might include such things as the extent to which expenses have been charged to the fund prior to purchase and the extent to which surplus or contingency reserves have been developed under the separate deposit fund in comparison with other forms of group annuity.

Parity would also involve the use of guarantees associated with the purchase rate which are consistent in length and pattern with those used elsewhere in the group annuity rate structure. Since the separate deposit fund is a part of a basic group annuity contract which is subject to experience-rating, its minor differences affecting risk can, with equity, be reflected in the experience-rating of the case as a whole if incorporation into the purchase rate or guarantee would involve undue operating complexity.

Margin for Contingencies

The operation of the separate deposit fund, by itself, involves very little hazard requiring the accumulation of surplus or contingency reserves, since the liabilities of the fund are limited to the current value of the fund. About the only circumstance under which it could become a drain on other separate deposit funds or the company's general investment account would be if it were insufficient to meet expenses. This would require a fall in security values or a rise in expense levels which is practically inconceivable. There is, however, some hazard in the mere issuance of a contract that it will subsequently be interpreted to impose obligations other than those originally contemplated. From time to time one hears of the expression "riskless risk," but whether there is such a thing as a completely riskless risk is open to serious question.

Furthermore, it does seem desirable to accumulate some margin for contingencies in anticipation of the time when the annuity risk fixes rather than to seek it all through the purchase rate. Also, the New York separate accounts law requires the establishment in the general account of a special contingent reserve fund for separate accounts, and it seems desirable that this earmarked surplus should ultimately be provided by separate account business. For these reasons, it seems reasonable that a flexible funding program provide about the same level of margin for contingencies from the separate deposit fund as is secured under a deposit administration contract with immediate participation guarantee. This margin can be maintained in the separate investment account or transferred as it emerges to the general account.

If annuity benefits guaranteed as to amount and duration or deposit funds guaranteed as to principal amount or stated rate of interest are held in a separate account, as is permissible under the Massachusetts separate account law, the desirable level of surplus in connection with these benefits would of course be related to the risk involved and the stringency of the reserve standard used in valuing them.

Expense Allocation

Areas beyond those of purchase rates, guarantees and surplus where the question of equity between separate and general investment account business can arise include expense allocation and investment of assets. Equity can be maintained in the former if the expense allocation formulas previously mentioned are based on adequate functional cost analyses and neither class of business is considered marginal to the other. As in the setting up of any new line of business, the expenses of developing a separate accounts program as distinct from operating it can be amortized over a reasonable period of years.

Since the separate deposit fund is in every case an integral part of a basic group annuity contract, there will be certain expenses associated with the case which may properly either be assigned in total to the basic coverage or be pro-rated between the basic coverage and the separate deposit fund. If some case expenses are assigned in total to the basic coverage, the characteristics such as size and activity of that coverage, independent of the separate deposit fund, should be used in entering the expense allocation formula. For the continuing case which is experience rated, the choice of approach would make little difference and could be based on administrative simplicity. However, because of the existence of the transfer-of-fund provision, equity would seem to require that all expenses directly related to the separate deposit fund and separate investment account be charged to the fund as they are incurred. These would include commissions, taxes, accounting and investment expenses. The taxes related to the separate deposit fund can be a minor item if the practice used by a number of companies in connection with deposit administration funds of incurring any premium tax at the time of purchase rather than the time of deposit is adopted. Under the federal act there is practically complete exemption for investment income and capital gains to the separate investment account for qualified pension plans.

Investment of Assets

The maintenance of equity in the investment of assets can be promoted by using for the separate accounts the same principles and standards in making investments and measuring performance as those used for the

general account. Thus, while the type and term of an investment for a specific separate investment account would be determined by the needs of that account, the procedures and standards for seeking out, evaluating, and consummating the transaction would be those used by the company in making all of its investments. An investment policy established in advance for each separate account or investment class would cover such things as type and quality of investment, degree of diversification, and emphasis to be placed on yield, security, liquidity, and potential for growth in earnings and capital gains and losses. While the investment policy would cover broad principles, it should not be so binding in detail as to preclude adequate flexibility in meeting changing market conditions. It would, moreover, be needed in negotiations with individual purchasers as well as being useful in making investments and avoiding discrimination.

With purchases for the separate account based on market conditions at the time funds become available and the needs of the separate account to maintain its stated investment policy as to type, quality, and diversification, there would normally be little conflict with investment for the general account. The good faith and integrity of those administering the investments must be relied on to handle equitably the occasional situation when the purchase or sale of a particular security may involve a choice between the general and separate accounts. The situation here is somewhat analogous to that confronted more or less regularly by those corporate trustees who are investing for a number of different trust funds.

It is interesting to note that, in general, the separate accounts laws exempt the separate account from restrictions applicable to the general account concerning the proportion that may be invested in any class of security but not from provisions concerning quality of the investment, and put limitations on the transfer of investments from one account to the other. Compliance with this latter provision can be facilitated by making purchases for the separate account in the name of "The XYZ Life Insurance Company—Separate Account." As previously mentioned, the Massachusetts law permits benefits guaranteed as to amount and duration and funds guaranteed as to principal amount and stated rate of interest to be funded through a separate account. In this case, a portion of the separate account at least equal to the reserve liability for such benefits and funds must be invested in accordance with all requirements applicable to the general investment account.

How Many Accounts?

A fundamental question in connection with the flexible funding of group annuities through separate investment accounts is how many of

such accounts to establish. In considering this question it seems desirable to keep in mind the original purpose of the separate account approach to insured pension funding: to make provision for common stock investments larger than were permitted the general account and to make the rate of return on funds deposited more sensitive to current market conditions at the time of deposit. With the more or less general acceptance of the investment-year method of allocating investment income, the latter objective has become more or less academic. However, additional uses of the separate investment account concept in promoting the attractiveness of the group annuity contract to the pension buyer for accumulating funds in advance of retirement have become apparent. For instance, it is possible to separate out classes of investment according to the expense of handling involved. Thus, the buyer who formerly found the expense level of an insurance company's entire portfolio a stumbling block can choose between putting his funds into a mortgage loan account with its high yields and high investment expense or a bond or stock account with lower yields and investment expenses. It is even possible to provide a separate investment account for a single group annuity contract involving a large amount of funds if the buyer wishes to rely entirely on the experience of his own account during the accumulation period and is willing to forego the advantages of a broader pooling of investments.

A strong case can be made for keeping the number of separate investment accounts to a minimum within the over-all objective of having sufficient flexibility to meet the needs of the pension buyer. The large account secures greater advantages of broad diversification of risk by geographical location, industry, and maturity date. More favorable investment opportunities are open to it. A regular flow of funds of sufficient magnitude into a separate investment account would enable it to take advantage of the higher yields of larger investments such as direct placements and industrial mortgages without sacrificing the advantages of diversification. It also reduces the relative amount of uninvested cash needed as operating capital or awaiting investment. The larger the number of accounts utilizing the same type of investments, the greater is the problem of maintaining equity in the selection of investments for the individual accounts.

The relative level of investment expense becomes lower as the fund becomes larger. Some of the same forces would be at work as those which produce, in a typical scale, trustee fees for the largest fund bracket at a level only 15 per cent of those for the smallest fund bracket.

At the present time the John Hancock Mutual Life Insurance Company is maintaining a common-stock class within the separate investment account and contemplates the establishment of a bond class and a mortgage

loan class when the need develops. The common-stock class is expected to be the easiest to operate. The scheduling of investments, making of periodic valuations, and administration of the transfer-of-fund provisions become increasingly complex in moving from a common-stock class to a bond class and from a bond class to a mortgage loan class.

There has been some question of whether a mortgage loan class will be needed. Wide flexibility in type of investment can be secured in a group annuity contract which includes a deposit administration fund in the general account and a separate deposit fund in the stock and bond investment classes of the separate account. For instance, suppose that a company were currently investing its general account approximately 53 per cent in bonds, 45 per cent in mortgages, and 2 per cent in stocks. Then a contractholder who wished to put 50 per cent of his contributions in bonds, 30 per cent in stocks, and 20 per cent in mortgages could do so by putting 45 per cent in the deposit administration fund and 55 per cent in the separate deposit fund to be divided 29 per cent to the stock class and 26 per cent to the bond class. However, there are some advantages to the maintenance of a mortgage loan investment class. For instance, a contractholder whose fund was entirely in bonds and stocks could introduce mortgage loans at a faster rate than he could through the general account if he deemed it desirable to alter the balance of investment by type in the over-all fund.

Marketing Problems

The introduction of flexible funding through separate deposit funds and separate investment accounts into the group annuity portfolio will place greater obligations on those presenting such a portfolio to the buying public. They will be obligated to point out clearly the effect on the contractholder and the covered individuals of the type of guarantee and investments involved in the flexible funding contract and set forth their advantages and disadvantages. In doing this, sight must not be lost of the advantages inherent in the deferred annuity and deposit administration fund invested in the general account which have already been proven attractive to pension buyers.

Under flexible funding the contractholder makes the decisions about the investment class in which his funds are invested and the insurer makes the decisions about the purchase and sale of securities. Thus, the contractholder takes on the responsibility of how his contributions shall be distributed among the various classes of fixed income and equity investments within any broad underwriting limits established by the insurer and of keeping the distribution current in changing market conditions. In order

that he may discharge this responsibility, the contractholder must be properly informed of the investment policy applicable to each investment class. In introducing flexible funding, the insurer is neither encouraging nor discouraging equity investment as a means of accumulating pension funds, nor is he suggesting as more desirable a distribution by investment class that differs from that of its general account but is offering a more complete service to its clients. As part of this service, it will be necessary to render regular reports to the contractholder at reasonably frequent intervals showing the performance and current status of his separate deposit fund and to be in a position to confer with him to a reasonable extent about market conditions and outlooks for the various investment classes. While unit values other than the dollar are not needed in the operation of a separate deposit account carried at all times at current market value, some sort of index in the nature of a unit value may be desirable for communicating performance records to prospective contractholders.

Legal Status

The legality of separate investment accounts varies from state to state. In general, there are two types of laws in effect specifically authorizing separate accounts. One authorizes them in connection with variable contracts and the other limits them to the advance funding of pension plans. At the present time California, Connecticut, Illinois, Maryland, Massachusetts, Michigan, Missouri, Nebraska, New York, Ohio, and Pennsylvania have laws of the latter type. The Massachusetts law also permits post-retirement benefits to be provided from the separate account. All of these laws spell out certain restrictions and controls on the use of the separate investment account and the contracts which may be assigned to them. For instance, the separate investment account may be used only in connection with pension, retirement, or profit-sharing plans, and in Maryland, Massachusetts, Michigan, and New York these plans must be qualified plans under the Internal Revenue Code. Also, the funds going into the account must be used to purchase retirement benefits under the company's policies or contracts or to provide benefits which are guaranteed as to amount and duration. Massachusetts permits an additional periodic retirement benefit which is not guaranteed as to amount or duration provided it does not vary in direct proportion to investment results of the separate account and does not exceed the guaranteed benefit. Maryland and New York require that at least twenty-five lives be covered under a plan whose funds go into a separate account, and New York requires that the agreement with the contractholder be a group

contract. In general, the statutes refer to the allocation of amounts to the separate investment account in accordance with the terms of "agreements." These agreements might be expected to encompass provisions in the application and contract governing the separate deposit fund and the written directions from the policyholder as to the distribution of his deposits among the various investment classes.

Ten other states (Arkansas, Colorado, Florida, Indiana, Iowa, Kentucky, Minnesota, Nevada, New Jersey, and Oregon) and the District of Columbia have laws concerning variable contracts which involve separate investment accounts under which the application to advance funding of pension plans is specifically permitted or could be by interpretation. In a number of other states the question is open as to whether the general insurance laws preclude separate investment accounts in the absence of specific enabling legislation. A more detailed analysis of the legal status of the separate investment account may be found in a paper, "Equity Funding of Retirement Benefits," delivered by Harold van B. Cleveland to the Association of Life Insurance Counsel in December, 1962.

A joint committee of the Life Insurance Association of America and the American Life Convention in reconciling widely differing points of view concerning variable annuities and segregated assets has recommended that the two associations support legislation authorizing separate accounts where such legislation provides that:

1. Benefits in the pay-out period are fixed and guaranteed.
2. Amounts paid in are committed irrevocably to the benefits provided by a pension, profit-sharing or retirement plan.
3. Benefits provided by the plan are independent of the investment experience, so that the risk of investment loss is not borne by an ultimate recipient.
4. Any funds, with respect to which the insurer guarantees either integrity of principal or rate of investment return, are invested with the same restrictions that are applicable to the investments in the general accounts.
5. Standards are designed to limit issue to contractholders of presumed investment sophistication.

The committee pointed out that this recommendation was not intended to suggest that the Associations oppose legislation permitting the use of separate accounts which does not contain these provisions. It also recommended that any legislation should contain the following provisions:

A. The life insurance company should be the owner of assets in the separate accounts.
B. Income, gains and losses, realized or unrealized, from each separate account should be credited to or charged against such account without regard to other income, gains or losses of the insurer.

C. The transfer of investments between any separate account and other accounts of the company should be prohibited except with the consent of the insurance commissioner.

D. Exceptions to the usual investment limitations should be created so as to allow more extensive investment of the separate account assets both in equities and in other media.

State of Development

While the flexible funding of group annuities through separate investment accounts is in its infancy, a large amount of development work has gone into it. In addition to the states now having separate account laws, similar bills are under consideration in a number of other states. The Life Insurance Company Income Tax Act of 1959 has been amended to exclude from tax the current earnings on assets held in separate accounts and capital gains and losses passed on to contractholders in such accounts, thereby putting it on a par taxwise with the trust fund as a pension funding vehicle. In this respect it goes further than the provisions applicable to qualified pension plan funds invested in the general account where earnings on contingency reserves, earnings in excess of the current earnings rate, as defined in the Act for the general account, and capital gains are subject to tax.

The Securities and Exchange Commission has issued two rulings on the subject of separate accounts. The first exempts from the Investment Company Act of 1940 any transaction involving a group annuity contract providing for the allocation of part or all of the employer's contributions to one or more separate accounts provided that the contract covers at least twenty-five employees at the time of its execution, provides for future issue of guaranteed annuities payable to covered employees on their retirement in fixed dollar amounts, prohibits the allocation to the separate account of employee contributions, and is made in connection with a qualified plan under the Internal Revenue Code. The second includes the transactions set forth in the first ruling in the definition of transactions by an issuer not involving any public offering under the Securities Act of 1933 provided certain restrictions on advertising are observed.

The National Association of Insurance Commissioners provided a blank for reporting on separate account business for the year 1962 and entries incorporating it in summary form in the Annual Statement. This was a temporary measure, and the Association and a subcommittee of the industry Blanks Committee are continuing to study the matter of developing a reporting procedure for separate account business.

The 1962 separate account blank did not carry with it any instructions concerning the valuation of assets. Of the eleven states having the type

of separate accounts law limited to advance funding of pension plans, Maryland, Illinois, New York, and Pennsylvania require that the assets allocated to the separate account be valued at market, Massachusetts requires that they be valued in the same way as those of the general account, and the others are silent on the matter. Since the contractual liability of the separate deposit fund is based on current market values, a spurious surplus or deficit might develop if assets are valued at other than market.

If the instructions applicable to the general account are considered applicable to the separate account as well, no particular problem is created as long as investments in the separate account are limited to the common-stock class which is normally valued at market. However, as the investment classes in the separate account are extended beyond common stocks, it would seem desirable to seek any modification of instructions, interpretations, rulings or statutes needed to value the assets of the account at current market values. Alternatively, an Annual Statement liability could be calculated using the Annual Statement valuation of assets. This would be considerably less desirable than using market values, but it would involve no violation of the basic principle of the separate deposit fund that its liability follow the value of the assets in the separate investment account.

DISCUSSION OF PRECEDING PAPER

HOWARD H. HENNINGTON:

Mr. Green has presented an extremely valuable paper on separate accounts. There are two points on which I will comment: (*a*) the handling of expenses and (*b*) the calculation of the book value of a policyholder's interest in a pooled separate account.

In the Equitable the introduction of separate accounts led us to redesign our deposit administration contract to make the deposit administration fund more compatible with the separate account. It is natural in the separate account to credit investment income directly as earned and to deduct expenses directly as incurred. We changed our deposit administration fund so that investment income and expenses would also be reflected directly as experienced. This set the basis for a relatively free transfer in both directions between the separate account and the deposit administration fund, since both were valued on a current and net basis. Incidentally, we felt it advantageous to avoid a division of expenses into two parts, that is, the part related to the separate account and the part related to the rest of the contract. Accordingly, we deduct the total expenses (other than investment expense) as one item, and we deduct it from the deposit administration fund.

In connection with the separate account value, it is necessary to have not only the market value but also a book value which may be used by the policyholder as the asset value in the actuarial calculation of the annual contributions to the pension plan. The market value could be used for both purposes, but it is more customary in actuarial cost calculations to use a book value which is essentially a cost basis. In some circles it is not fully recognized that a book value of the separate account is available distinct from the market value.

Mr. Green is planning to reflect in the book value for each policyholder the realized gains and losses of the pooled separate account. Contrary to that plan, we expect to use for the policyholder's book value his own cost, which would be the amount of his contributions plus any gains or losses arising if the policyholder makes a net cash withdrawal from the separate account into the deposit administration fund. If there is a net cash withdrawal from the separate account by a policyholder, this would be the first occasion for an adjustment of the policyholder's cost basis reflecting a realized gain or loss based on the difference between the market value and the book value on the amount of the withdrawal.

We feel that this approach is simpler to describe and that it is more in line with established practice for pooled pension trust funds. Obviously, if there is too great a gap between book value and market value under our system, there always is the opportunity to use for actuarial calculations one of the recognized methods of introducing an intermediate valuation basis reflecting part of the accumulated market appreciation.

The whole subject of separate accounts brings new and challenging problems and continues to make the pension field particularly interesting. The separate account development has introduced a greater need for projections to derive the balance of investments in future years between fixed-income investments and common-stock investments in order to illustrate the results of different investment programs. It is necessary to become more experienced in projection techniques and to caution those concerned on the limitations of the projections involved.

JOHN B. STEARNS:

First, I would like to thank Mr. Green for his very well-thought-out and nicely written paper.

I particularly like the short comparison of the market-value and investment-year methods of allocating expense and income.

As to the method of splitting the investment portfolio, another possible way of handling it is used in the Prudential. We have one separate account with respect to the reserves and another separate account for the surplus and other liabilities. Presumably, the surplus element of the other account is invested in the same general way as the reserves are. As to the liabilities, of course, if this includes, for example, an unpaid expense liability, we would hold assets for that in the form of cash or treasury notes.

This particular approach resembles somewhat the approach which the variable annuity companies are using.

Another point concerns the treatment of brokerage. As you know, the traditional treatment of brokerage in the convention blank is to add it to the cost of the security. This in effect means that brokerage is allocated in proportion to mean funds when you handle it in a separate account.

There is an alternative treatment, however, which may appeal to some as being more equitable: to charge brokerage as a percentage of the consideration, which has to be invested. This would run in the neighborhood of 1 per cent. And a similar charge could be made when the deposit fund is used.

It should be recognized, however, that to the extent that a company is able to offset deposits against withdrawals it might have no brokerage at all. So I give you your choice.

I was interested in the comments regarding liquidation of a fund in the form of securities instead of cash. It would seem to me this would be particularly desirable for a mortgage-loan account. The contractual problem, though, of expressing this in a group contract must be very difficult unless you give the insurer quite a large amount of discretion in deciding exactly how he is going to handle this; and here, of course, any such discretion is likely to be objectionable to the contract-holder.

We were interested also in the description of the monthly valuation. In our case we chose to do it on a daily basis, that is, every day that the Prudential is open for business, which is normally five days a week. We had two reasons for this. The primary reason is that we thought this would be what the customers would most likely want. Another thing that influenced us is the fact that we realize that many of our customers would be choosing between an insured medium of financing their pension fund and a mutual fund, which often values their shares twice a day.

We found so far that the daily valuation is not too burdensome.

(AUTHOR'S REVIEW OF DISCUSSION)

EDWARD A. GREEN:

I appreciate Mr. Hennington's and Mr. Stearns's additions to the paper in setting forth some of the areas in which their companies' practices differ from those described in the paper and the reasoning behind such differences.

Mr. Hennington's revised approach to the deposit administration contract sounds very much like a regular deposit administration contract with immediate participation guarantee under which expenses are charged as they are incurred. Where the separate deposit fund is associated with this type of contract, there probably is less need for precision in separating expenses than where it is associated with such forms as the deferred-annuity contract or the terminal-funding contract. However, for the reasons set forth in the paper, I continue to feel it to be desirable that expenses directly related to the separate deposit fund be charged to the fund. In annual statement accounting it would be irregular to have a line of business or class of investment with which no expenses of any sort were associated. Also there is a danger of misleading a contract-holder as to the actual performance of that portion of his deposits going into the separate investment account if all insurance or investment expenses, or both, are charged to the portion going into the general account.

Mr. Hennington's method of calculating book values is an interesting one. It appears to follow more closely the method used by corporate

trustees in connection with pooled pension-trust funds, while ours has a degree of parallelism with that of an individual trust account. To date, we have not found it difficult to explain.

It was interesting to learn that Mr. Stearns's company does not find daily valuations burdensome. Our valuations are made monthly as a matter of convenience, but provision is made for interim valuations under unusual circumstances such as at the time of a deposit or transfer not coinciding with a regular valuation date which would have a significant effect on the value of the separate account. Some such provision seems necessary if valuations are not made as frequently as daily.

I concur with Mr. Hennington that actuaries working with separate account business are going to have to become more experienced in projection and other techniques. In the paper it is stated that the insurer, in introducing the new product, is neither encouraging nor discouraging equity investment as a means of accumulating pension funds nor suggesting as more desirable a distribution by investment class that differs from that of its general account but is offering a more complete service to its clients. While many such clients will have firm convictions as to the proper proportion of equities for their plans, others will undoubtedly seek counsel on the matter, and, I believe, we will have to come to grips with the problem of developing guides in this area. Mr. Warters' and Mr. Rae's paper, "The Risks in Equity Investments for Pension Funds," and the discussions thereof (*TSA*, XI, 920) cover a number of the basic issues that must be faced.