

Can This Be Happening?

THE AVAILABILITY OF QUESTIONABLY PRICED AND ILLUSTRATED SINGLE-premium immediate annuity and adjustable-premium universal life insurance policies makes it possible for well-intentioned promoters of tax shelters and overly zealous estate planners to persuade clients to buy combinations of such policies, which, over time, can result in substantial losses to the clients.

Douglas Doll, in an article titled "Mortality Arbitrage—Life and SPIA" that appeared in the April 2003 issue of *Product Matters*, the newsletter of the product development section of the Society of Actuaries, alludes to the practice of issuing life and single-premium annuity policies simultaneously.

Estate planners claim that the annuity payments will be sufficient to pay the premiums for a life insurance policy and pay all other expenses associated with the arrangement. The life insurance policy will return more than the original investment to the beneficiaries on the death of the annuitant/insured. Additionally, it is also claimed that federal income tax and estate tax advantages are to be derived from the arrangement.

Doll states that consumer agents are taking advantage of mispricing or faulty underwriting by either the issuer of the life insurance policy or the issuer of the annuity policy. That may be true in some instances. However, I believe that it is more likely that the illustrations provided don't disclose all the costs that may be expected to develop over time.

If indeed the present value at issue of annuity payments were greater than the present value at that time of the cost of life insurance, plus the present value of all the other costs associated with such an arrangement, there might be some justification for the arrangement.

In a frictionless world without premium taxes, acquisition expenses, costs of administration, federal income taxes, etc., a single-premium annuity policy could be issued by one insurer and a level-premium life insurance policy with a face amount equal to the annuity single pre-

mium could be issued by another insurer. If the mortality and interest assumptions are the same for both, the difference between the annuity payments and the life insurance premium at the end of each year will be the assumed interest.

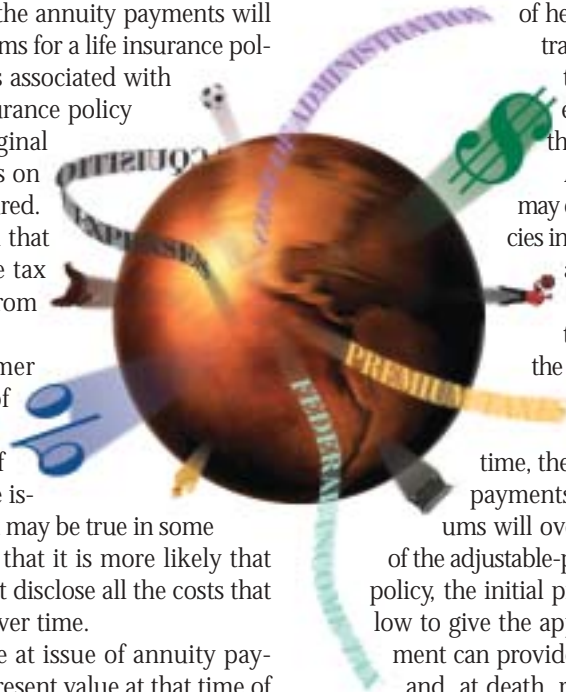
Since the world is subject to friction, however, and in order to assure a profit, the issuer of an annuity policy assumes lower mortality rates and the issuer of a life insurance policy assumes higher mortality rates than those which are likely to emerge over time. Both allow for the costs mentioned. Promoters expect remuneration for their efforts in the form of hefty consulting fees and administrative charges for establishing the trusts, loan agreements, and other documents needed to maintain the arrangement.

And positive interest rate spreads may or may not exist between the policies in the original pricing assumptions and the original pricing assumptions for the annuity policy and the emerging experience under the adjustable-premium universal life insurance policy.

It's highly unlikely that over time, the difference between the annuity payments and the life insurance premiums will overcome the friction. In the case of the adjustable-premium universal life insurance policy, the initial premiums can be set sufficiently low to give the appearance that such an arrangement can provide attractive returns to the client and, at death, return the single premium paid for the annuity to the beneficiary.

These initial premiums, however, aren't guaranteed or are guaranteed for a short period only. Over time, the life insurance premium will have to be increased, and eventually it will be well in excess of the annuity payment. Unless death occurs in the early years of the arrangement, the insured will incur losses.

While there may be high-income clients for whom tax shelters will contribute sufficient economic value to an arrangement of matching annuity and life insurance policies to overcome the friction, it should be remembered that tax shelters are transient and annuity policies can-



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TABLE 1. Detail of Variation C-1

YEAR	ANNUITY	ANNUAL LIFE PREMIUM	ANNUAL ADMINISTRATIVE CHARGE	ANNUAL INTEREST	LOAN END OF YEAR
1	599,400.00	198,850.00	30,000.00	5.25	4,872,496.13
2	599,400.00	198,850.00	30,000.00	5.25	4,738,298.30
3	599,400.00	198,850.00	30,000.00	5.25	4,597,055.08
4	599,400.00	198,850.00	30,000.00	5.25	4,448,396.60
5	599,400.00	198,850.00	30,000.00	5.25	4,291,933.55
6	599,400.00	359,526.32	30,000.00	5.25	4,296,368.00
7	599,400.00	435,105.26	30,000.00	5.25	4,380,582.11
8	599,400.00	499,578.95	30,000.00	5.25	4,537,076.02
9	599,400.00	549,210.53	30,000.00	5.25	4,754,023.09
10	599,400.00	651,684.21	30,000.00	5.25	5,090,213.43
11	599,400.00	746,736.84	30,000.00	5.25	5,544,096.66
12	599,400.00	867,526.32	30,000.00	5.25	6,148,939.68
13	599,400.00	1,020,789.47	30,000.00	5.25	6,946,846.44
14	599,400.00	1,189,210.53	30,000.00	5.25	7,963,906.45
15	599,400.00	1,356,684.21	30,000.00	5.25	9,210,628.18
16	599,400.00	1,367,947.37	30,000.00	5.25	10,534,657.26
17	599,400.00	1,433,789.47	30,000.00	5.25	11,997,496.69
18	599,400.00	1,548,473.68	30,000.00	5.25	13,657,840.32
19	599,400.00	1,680,105.26	30,000.00	5.25	15,543,894.22
20	599,400.00	1,831,315.79	30,000.00	5.25	17,688,115.04

not be canceled or undone. It's difficult to believe that a tax shelter benefit is able to overcome the friction inherent in the arrangement.

Before agreeing to such an arrangement, the client should review the illustration that projects the costs and benefits of the life insurance policy. The level of premium charged for this policy will ultimately be the key to determining the economic value of the arrangement. Help may be needed to verify that the premiums and interest rates illustrated may be expected to emerge over time and that the likelihood of higher premiums emerging is highly unlikely.

These planners often suggest that the client borrow the premium for the annuity, using the life insurance policy as collateral for the loan. In that scenario, based on the low initial adjustable universal life premium, loan repayments can be demonstrated.

However, the interest to be paid on the loan balances adds to the friction, and unless the life insurance premiums can be guaranteed to remain below the annuity payments, loan balances will eventually increase and will probably exceed the original loan. Death will have to occur

even earlier than in the no-loan scenario, or else the proceeds of the life insurance policy won't be sufficient to repay the loan. An early death, quixotically, will increase the value of the estate.

These arrangements are being offered to prospects ranging from age 70 to age 90 in amounts upward from a \$4 million single-premium annuity policy. In many cases, the prospects for these policies are wealthy widows who expect to live out their lives on the payments from the annuity and leave behind the life insurance proceeds for their heirs. They tend to be easy targets, credulous and eager to do the right thing with the wealth that's been left to them.

In order to illustrate the difference in results between what's being demonstrated in the field and what realistically can be expected to emerge over time, a number of scenarios are presented.

In all scenarios a \$5 million single-premium annuity is issued simultaneously with an adjustable-premium universal life insurance policy with a face amount of \$5 million on the life of an 80-year-old female. The \$5 million premium is borrowed. The annuity payments are received annually, and the life insurance premiums

are paid annually. The life insurance policy is guaranteed to remain in force for the initial five years upon payment of the minimum premium specified for the period. Thereafter, the issuer of the life insurance policy may change the premium required to maintain the policy in force.

The change in premium may result from one of two possible causes, or from a combination of the two possible causes. The policy, generally, provides that premiums are calculated based on the issuer's current mortality, investment, and administration expense experience. Variations in that experience may result in changes in the required premium after the expiration of the guarantee period, subject to a maximum premium that can be derived from maximum mortality and administrative costs and minimum investment returns specified in the policy.

The premium may also change because prior premium payments, while sufficient to maintain the policy in force at the insured's then current age, won't be sufficient to maintain the policy in force as the insured ages and mortality costs increase.

Table 1 presents a comparison of results based on various premium payment

TABLE 2. Detail of Variation C-2

YEAR	ANNUITY	ANNUAL LIFE PREMIUM	ANNUAL ADMINISTRATIVE CHARGE	ANNUAL INTEREST	LOAN END OF YEAR
1	599,400.00	198,850.00	30,000.00	5.25	4,872,496.13
2	599,400.00	198,850.00	30,000.00	5.25	4,738,298.30
3	599,400.00	198,850.00	30,000.00	5.25	4,597,055.08
4	599,400.00	198,850.00	30,000.00	5.25	4,448,396.60
5	599,400.00	198,850.00	30,000.00	5.25	4,291,933.55
6	599,400.00	669,250.00	30,000.00	5.25	4,622,352.18
7	599,400.00	669,250.00	30,000.00	5.25	4,970,117.80
8	599,400.00	669,250.00	30,000.00	5.25	5,336,141.11
9	599,400.00	669,250.00	30,000.00	5.25	5,721,380.64
10	599,400.00	669,250.00	30,000.00	5.25	6,126,845.25
11	599,400.00	669,250.00	30,000.00	5.25	6,553,596.75
12	599,400.00	669,250.00	30,000.00	5.25	7,002,752.70
13	599,400.00	669,250.00	30,000.00	5.25	7,475,489.34
14	599,400.00	669,250.00	30,000.00	5.25	7,973,044.66
15	599,400.00	669,250.00	30,000.00	5.25	8,496,721.63
16	599,400.00	669,250.00	30,000.00	5.25	9,047,891.64
17	599,400.00	669,250.00	30,000.00	5.25	9,627,998.08
18	599,400.00	669,250.00	30,000.00	5.25	10,238,560.10
19	599,400.00	669,250.00	30,000.00	5.25	10,881,176.63
20	599,400.00	669,250.00	30,000.00	5.25	11,557,530.53

patterns, expense loadings, interest rates, administrative fees, and loan interest rates. The administrative fees are the amounts charged by the promoters of the annuity/life insurance arrangement as compensation for establishing and maintaining the arrangement.

The results shown are the first year in which the loan balance exceeds the original \$5 million loan balance, and the loan balance at the end of 10 years and 20 years. All results assume that the current experience factors will continue to be applied. No provision is made for deterioration of experience. Premium increases result from the increasing costs associated with aging.

No variation produces a loan balance of less than the \$5 million original loan balance beyond nine years. At the end of nine years, dependent on the mortality pattern, between 47 percent and 57 percent of those originally insured are still living. Between 53 percent and 43 percent left an increased estate because of their "timely" death. Once the loan balance exceeds the potential life insurance proceeds, arrangements must be made to collateralize the

excess or to repay a portion of the loan.

Variation C-1 produces the lowest loan balance at the end of 10 years for all variations, using a \$30,000 administrative fee. This results because the premiums paid after the five-year guaranty period are the lowest premiums possible that keep the policy in force.

At the end of 20 years, however, variation C-1 has the highest loan balance, since the payment of the lowest possible premium from year to year results ultimately in paying higher and higher premiums from year to year, without benefit of the buildup of inside value usually associated with a whole life policy. The details from year to year for variations C-1 and C-2 are found in Table 2 and Table 3, respectively.

Variation I produces the lowest loan balance at the end of both the 10th and 20th years. This variation is a combination of all the favorable deviations from variation C-2.

There is no combination of viable mortality, investment, expense, and loan interest assumptions that can reasonably provide that the life insurance policy will

liquidate the loan balance at death at any time unless excess loan balances were repaid during the lifetime of the insured. This is in spite of the fact that loan interest rates used in the demonstrations are conservatively low.

Death in the early years of the arrangement will provide some additional value to the estate of the insured. There may be some federal income tax or estate tax benefits to be derived from the program, but these benefits would have to be inordinately large to compensate for the large loan balances if death occurred in the later years. An arrangement without borrowing and without excessive administrative fees may be, in view of tax savings, economically viable.

The potential prospects ranging from age 70 to age 90 can be easy targets for unprincipled promoters. While I do not agree entirely with Mr. Doll's assessment of the origin of these products, I do agree with his conclusion that the issuers of these products should take a good, hard look at the pricing of the products. Moreover, they should monitor the sales patterns and illustrations provided at these higher ages.