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Course 150 Changes Cont'd.

tested in a short multiple-choice format. Thus, the E&E Committee proposed, and the Education Policy Committee approved, the introduction of written-answer questions asking for a written solution onto Course 150.

In addition to allowing for in-depth testing of specific areas of knowledge, the E&E Committee leadership felt it desirable to have at least one Associateship examination contain some form of written answers.

Students were advised of the requirement of written-answer questions in a study note prior to the May 1987 examinations. The study note included eight sample questions and solutions. The questions selected were written by the Examination Committee at the same time the examination was being set. Students were informed that the solutions were illustrations of answers expected of a well-prepared student and that other solutions might receive full or partial credit.

The May 1987 examination contained six written-answer questions, and candidates were allowed 1 1/2 hours to answer them. The questions and model solutions are contained in study note 150-132-87, currently available from the Society.

Was the experiment a success? Course 150 Chairperson, Jeffrey Beckley said, "Yes and no." Yes, because the new material supplied the Examination Committee with additional information, including the fact that the multiple-choice and written-answer sections were not as highly correlated as they had been in prior years. No, because students performed relatively poorly on the written-answer questions.

Many students turned in blank pages for more than one question, either indicating a lack of knowledge of some subjects or an inability to properly allocate time among the several questions. Furthermore, many students who did answer questions did not follow the format and structure shown in the sample answers.

One question on the May examination involved a changed mortality rate at one particular age. Students were given a formula for the 20th year terminal reserve and asked to show that it was a correct formula reflecting the changed value. According to Beckley, even though the answer was given and the solution merely required a development of that answer, the modal score earned on that question was zero, and the mean was less than 0.3 out of 5 points.

Although results were disappointing, the E&E Committee has decided to continue with written-answer questions on Course 150. The Committee will continue to evaluate performance of candidates on the two pieces of the examination and will consider imposing minimum standards sometime in the future if the performance on the written-answer section does not improve.

Students preparing for the November 1987 examination are urged to carefully review the model solutions provided in the study notes. In addition, students may find it helpful to read "Techniques for Preparing for and Writing Exams" which appears in *RSA* 11, No. 3 on pages 1291-1321.

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Single-Premium Whole Life Insurance

by Gary E. Dahlman

Another old but little-used product is making a comeback. Single-premium whole life insurance (SPWL), with minimal death benefits and current market interest credits, is being sold in considerable volume, particularly in the securities brokerage market. Many general agency and brokerage life insurers have also introduced SPWL products recently.

SPWL sales have accelerated rapidly since the passage of the Tax Reform Act of 1986. While the Tax Act eliminated or significantly reduced the attractiveness of many past popular tax shelters, life insurance was left relatively untouched.

Both fixed (book value cash outs) and variable products are being sold. Sales of SPWL can build a company's assets rapidly, but note also that fixed products retain the disintermediation risk. For this reason we may see a shift to variable products over the next few years.

Background

During the mid-1970s, the sale of single premium deferred annuities

SPWL Cont'd.

with current market interest credits increased dramatically. These sales were fueled by the high interest rate environment and the tax deferral aspects of deferred annuities. Small amounts of SPWL were sold in the late 1970s and early 1980s; however, the lack of a definition of life insurance in the federal tax code discouraged the securities houses from marketing SPWL with a heavy investment orientation.

The situation changed considerably with the passage of TEFRA and DEFRA. Not only was a definition of life insurance added to the tax code which spelled out minimum death benefit requirements for a contract to qualify as life insurance, but changes were also made to the taxation of annuities which increased the attractiveness of SPWL. As a result, brokerage firms and insurance companies began actively developing and marketing SPWL plans, and sales have soared in the past few years.

Product Description

While a few years ago the most common SPWL contracts were traditional SPWL plans with excess interest credits used to purchase paid-up additions, the use of single premium universal life (SPUL) contracts is widespread today. Many of the SPUL contracts in the marketplace have zero current mortality charges (often guaranteed for up to five years).

A popular variation of SPWL is an SPUL contract which makes no specific provision for mortality deductions. The contract's single premium is accumulated with interest only, or with interest less an expense charge. The interest spread is typically wider (i.e., the credited rate is lower) on such contracts since mortality costs must be covered by the interest spread in the absence of a separate mortality charge deduction.

Common to all investment-oriented SPWL contracts are minimal death benefits, which are specified in Section 7702 of the federal tax code, and maximum cash value accumulations.

Most contracts contain no front-end load. Instead, there is a rear-end surrender charge (typically 7–8% initially, grading uniformly to zero after 7–8 years), but with a "money back" provision which provides that

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the policyholder will never receive less than his initial single premium. The "money back" feature can be viewed as an extended "free look" provision.

Current interest and mortality (if any) guarantees are typically for one year; however, guarantees of up to 3–5 years are offered (such guarantees generally come with credited rates which are 1/4 to 1/2 of 1% lower than on plans with one-year guarantees).

Some contracts offer bailout provisions similar to those of SPDAs, for example, waiving the surrender charge if the current credited interest rate is more than 1% less than the initial credited rate during the period of the surrender charge. A few companies offer policyholders the choice of contracts with or without the bailout feature. The contract with the bailout feature usually carries a credited interest rate of 1/4 of 1% less than the contract without the bailout feature.

A key provision of many SPWL contracts is zero-cost borrowing of interest accumulations. This preferential borrowing arrangement is accomplished by setting the credited rate on the portion of the policy's account value that is loaned equal to the policy loan interest rate. Non-preferential borrowing of principal (i.e., the original single premium) is permitted, but usually at a net cost of 2–3%.

Markets

Huge volumes of SPWL business have been sold through stockbrokerage firms in recent years. While it is possible for an insurer to deal directly with brokerage firms, the bulk of this market segment is controlled by wholesalers specializing in marketing SPDAs and SPWLs to the brokerage firms. Many brokerage firms, however, have subsidiary life insurance companies, and there is a trend among such organizations towards retaining business in-house.

Banks and S&Ls are another important market segment. Although the sale of insurance and annuity products by banks and S&Ls often results in transfers of deposits to insurers, the commissions on such sales generate immediate earnings and improved ROEs for the banks and S&Ls.

As mentioned, many life insurers have introduced SPWL contracts to their agent and broker distribution systems. In this environment, the SPWL can be used as an investment alternative or, perhaps more typically, as a replacement vehicle (preferably for some other insurer's cash value life insurance policy).

Pricing Issues

Probably the most critical pricing issue is determining the target interest spread a product must achieve to cover expenses (and in some cases mortality) and produce an adequate profit margin. Considerable competitive pressure exists to declare a relatively high initial credited interest rate, since the product is sold primarily on rate.

While sound product management requires that a company protect itself against the possibility of future disintermediation, competitive pressure has forced some companies to invest in somewhat longer maturities, and/or lower investment-grade bonds, than they would otherwise prefer. Much coordination is needed between the investment and actuarial functions, both in the initial pricing and ongoing product management process.

Another critical pricing issue is evaluating mortality risk. Except for larger policies, SPWL business is typically sold on a limited underwriting basis. Whether a separate mortality charge is made, or mortality costs are covered through the interest spread, the pricing actuary must evaluate the underwriting procedures to be employed and estimate the level of mortality expected over the life of the business.

The use of preferred loans can significantly affect profit margins. Most SPWL contracts on the market deliver significantly lower profit margins when policyholders exercise the preferred loan option. Since the preferred loan feature is relatively new, little experience is available on the use of such loans. The pricing actuary must make an assumption about preferred loan utilization and then test the sensitivity of profit margins to either increases or decreases in the assumed utilization rates.

Substandard applicants present a problem for many SPWL plans. While Section 7702 allows the use of multiples of standard mortality tables for substandard insureds, the minimum death benefits required are such that it is generally not practical to offer this product to highly substandard individuals.

Regulatory Issues

Because, Section 7702 of the federal tax code now includes a definition of life insurance which specifies the amount of death benefit protection necessary for a product to qualify as life insurance, most SPWL contracts sold today try to minimize death benefits to enhance the product's investment orientation. Therefore, a good understanding of Section 7702 requirements when designing an SPWL product is essential. Furthermore, before marketing a product, most securities brokerage firms, and some banks and S&Ls, will require that an insurer provide an opinion letter from a qualified tax counsel stating the product qualifies as life insurance under the federal tax code.

At the state level, the regulatory concerns on an SPWL product are primarily related to proper reserving and to advertising and disclosure in the sales process. The heavy investment orientation of the product in many companies' sales literature is also a concern to the regulators. The key valuation issue is adequate reserves for (1) the bailout feature and (2) extended guarantees of current credited interest rates and mortality charges.

Future Directions

Several insurers recently have introduced single premium variable life products. Most of these products allow policyholders a choice of investment options, such as money market, fixed-income, zero-coupon bond, and a variety of stock funds. Given the investment orientation of the SPWL product, it would not be surprising to see a shift in market share from interest-sensitive products with book value cash outs to variable life and variable universal life products.

Another possibility is the modified guaranteed life insurance product for which the NAIC recently adopted a model regulation. These plans permit insurers to make market value adjustments upon surrender prior to

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maturity. It would appear that these products will be less costly to develop and administer than true variable plans. On the other hand, it may be several years before enough states adopt the NAIC model regulation to make it possible for insurers to offer the product on a regional or national basis.

Both variable products and modified guaranteed life insurance give insurers the opportunity to avoid the disintermediation risk, while at the same time offering policyholders attractive fixed or variable investment-oriented life insurance products.

Summary

The 1986 tax reform legislation enacted by Congress eliminated or significantly impaired many frequently used tax shelters. Life insurance escaped relatively untouched, however. As a result, SPWL products, both fixed and variable, now enjoy a preferred tax status which has further enhanced what was already a rapidly growing segment of the insurance market.

In the rush to exploit the market for this tax-advantaged product, many insurers have focused their advertising on the "last great tax shelter" aspect of the product. Not surprisingly, this has been called to the attention of the leading tax writers and their staffs in Washington. Because insurers and other participants in the financial services industry have been calling for the so-called "level playing field," and because of the difficulties facing Congress to reduce the federal budget deficit, it would not be surprising to see legislation proposed to reduce the attractiveness of SPWL, perhaps in the form of a tax on the inside build-up. The danger for the life insurance industry, of course, is that such a tax might not be limited to SPWL products. The industry would obviously mount an intensive campaign against an across-the-board tax on the inside buildup, but one possible scenario is that SPWL might be sacrificed in order to achieve a compromise. Only time will tell.

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Proposed Health Reserve Standards – A Dissenting Viewpoint

by Robert Shapland

Late in 1983 the American Academy of Actuaries Subcommittee on Liaison with the NAIC Accident and Health (B) Committee accepted the task of developing new reserve standards for health insurance, in response to a request from the NAIC (EX5) Life and Health Actuarial Task Force.

This subcommittee's efforts have resulted in three draft proposals, all widely exposed for comment, and each of which has generated much controversy. The latest draft is being considered for adoption by the NAIC.

My comments here focus on the proposed standards for individual policy reserves.

A given policy reserve formula inherently assumes some underlying rating principles and practices as to the matching of revenues and expenditures, especially the matching of premiums and claims. Much of the controversy generated by this subcommittee's policy reserve proposals has occurred because of the conflict between the rating principles and practices, which underlie the proposals, and those used by many actuaries and insurers.

A wide diversity of rating principles and practices are used by health insurers today. Numerous approaches exist to set initial and renewal premium rates under policies where (1) insurers retain the right to change premiums after issue; and (2) claim costs will increase as the insurance matures.

Claim costs will increase after issue due to aging, wearing off of the impact of underwriting selection, inflation, and anti-selection by continuing policyholders. Both predictable and unpredictable increases in claim costs can be addressed by a wide range of rating practices, including:

1. The short-term morbidity approach, where initial premiums are calculated to cover claim experience for a short period, such as one year, while future premium rates are set to cover future claim experience.
2. Various longer-term approaches, where initial premium calculations recognize some or all of the anticipated trends due to the causes listed above, as well as to enhancements in medical care. Here, insurers might attempt to calculate initial premium rates to cover claims for several years, even to age 65. Or, initial premiums may fund only some of these expected increases over such periods, while relying on later rate increases to cover the rest of the extra costs.

Note that under any of these rating practices, there can be recognition (or not) of past claim experience margins or losses in setting renewal premium rate levels.

An insurer's choice of rating practices, which set forth how to calculate initial and renewal premiums, is based on several considerations:

- the method's ability to cope with changing costs;
- its impact on the insurer's competitive position;
- the comparitive risk of loss for that method;
- the degree to which the developing rating pattern might create a deteriorating risk pool; and
- equity between short-term and long-term policyholders.

While each insurer is free to choose its rating practices, legal restrictions exist in the form of state laws that require premiums to be "reasonable in relation to benefits," where "reasonableness" is measured on the basis of anticipated loss ratios.

Depending on the state, anticipated loss ratios are measured:

1. prospectively only over the remaining policy life;
2. prospectively only over the rating period for which premiums are calculated;
3. over the entire policy lifetime; or
4. over the current "rating period," including both the retrospective and prospective portions.

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