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New Funding Rules Cont'd.

Assets would include invested assets, of course, valued on a market-related basis. The assets would also include the value of future amortization payments, limited to those due in the 5 years following the valuation. All amortization payments, however, could be taken into account 1) in respect of past service granted on the initiation of a plan, and 2) in respect of amortization arising under the old legislation. (The former (1) is so that the establishment of new plans with past service benefits would not be discouraged, and the latter (2) would serve as a transitional measure to avoid retroactive application of the solvency valuation test.)

The general effect of these new rules is to ensure that plans continue to be well-funded on a going-concern basis, while also ensuring that any greater flexibility permitted in funding going-concern unfunded liabilities will not have a negative effect should the plan terminate. In addition, the rules will generally ensure that all plans are targeted to be fully solvent on a termination basis within 5 years.

In my estimation few final average plans will show solvency deficit, since valuation on current interest rates without salary scales will more than overcome any strengthening effects of the solvency basis. The effect on career average plans is less certain, but also not expected to be significant, because these plans tend to be well-funded already. Flat benefit plans, however, will have their funding flexibility cut back severely, in many cases. This is because a greater number of elements in the basis will need to be strengthened, compared to those where some weakening would be possible. Principal among these would be a generous early retirement provision. Furthermore, many of these plans increase accrued benefits on a regular basis through collective bargaining and amortize the cost of these increases over the maximum period. The effect of these rules could be to reduce this period to 5 years in some cases.

In summary, new funding rules are now in effect in the federal jurisdiction and Alberta and will shortly be in effect in Ontario, Nova Scotia and possibly Quebec. These rules will permit greater flexibility in funding pension plans, while at the same time introduce funding standards on a plan termination basis which will ensure 1) that plans are either able to meet all their obligations on a plan termination, or 2) that plans at least are targeted to be in this position within 5 years. The aim is to allow flexibility so that plan sponsors are encouraged to increase benefits, while safeguarding, to the extent possible, the rights of pension plan members.

Michael Cohen is Director of the Pension Benefits Division at Financial Institutions Canada. He is also a member of the CIA Pension Standards Committee and the Joint Task Force of the Canadian Institute of Chartered Accountants and the Canadian Institute of Actuaries, which is investigating pension accounting issues for the public sector.

Non-Traditional Marketing Meeting to be Held

On December 10, 1987, the Non-Traditional Marketing Section will jointly sponsor a seminar with the Direct Mail Insurance Council (DMIC). The meeting will be held in Hartford, Connecticut, and will be hosted by The Travelers. A dinner for all meeting participants will take place on December 9.

The title for the meeting is "Relationship Marketing: The Essential Strategy for Successful Direct Marketing of Insurance." Speakers from both the DMIC and our Section will explore the total value of an insurance customer and not simply the profit potential from the sale of one product to the customer. Michael Shumrak and Jay Jaffe will represent our Section.

The meeting marks the first time that the Non-Traditional Marketing Section has jointly sponsored a seminar with a non-SOA group. We hope this will be the first of several sessions with groups whose membership along with our membership will benefit from an exchange of ideas.

The seminar is open to all SOA members. Section members will receive a special notice describing the meeting. Anyone else desiring further information about the meeting should contact Jay M. Jaffe, Actuarial Enterprises, Ltd., Suite 333, 600 Central Avenue, Highland Park, IL 60035 (312/831-6603).

"Travel Time" Under the New Examination System

by M. David R. Brown

With the implementation of the new Flexible Education System (FES) for the Associateship exams, there has been concern on the part of students, employers and the E&E Committee that the new system may result in longer "travel time" to progress through the examinations. The Spring 1987 exam results showed a sharp drop in the number of new ASAs to a total of 88 from the level of recent spring exam administrations (about 250). This prompted the Society education staff to investigate whether the new system is hindering or helping candidates' progress through the system. The results of this investigation were as follows.

A total of 767 candidates could have become ASAs by passing all exams for which they were registered. Here is what happened to them:

(a) 159 did not write all exams for which they registered.
(b) 88 became ASAs.
(c) 99 failed all the exams they wrote.
(d) 103 would have become ASAs under the old system since their combined scores would have passed them, but they failed one or more "sub-parts."
(e) 151 would not have become ASAs but did pass two or three of the four "sub-parts" of former Part 5.
(f) 167 would not have become ASAs but did pass one of the four "sub-parts" of former Part 5.

Categories (a), (b) and (c) were not affected by the introduction of FES. The 346 candidates in these categories (45.1% of the total) are in the same position under the new system as they would have been under the old.

Category (d), with 12.9% of the total, was adversely affected by the introduction of the new system, but categories (e) and (f), with 41.5%, were favorably affected. Individuals in these categories now lack one to three sub-parts to complete their ASAs under the new system; many of them will

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"Travel Time" Cont'd.

probably sit for at least one Fellowship exam this fall as well as the remaining Associateship exams.

It is still too soon to say that the number of new ASAs will correct itself in the next few exam sittings, but that scenario would be consistent with the available evidence. In any event, the spring 1987 results indicate that more than three times as many candidates benefited from the new system compared with the number who were adversely affected.

The E&E Committee will continue to monitor this situation and the general effect of the new system on "travel time" through the exams.

M. David R. Brown is a Consulting Actuary at Eckler Partners, Ltd. He is an Associate Editor of *The Actuary* and recently finished his term as SOA Vice President in charge of Education and Examination.

New Books Added to SOA Library

The following is a partial list of additions to the SOA library. Members may borrow library books by contacting the Research Librarian at the Society office.

Andrews, George H. *Actuarial projections for OASDI program of the United States of America.* 1987.

CCH guide to employee benefits under 1986 tax reform.

EBRI. *The changing profile of pensions in America.* 1985.

Employee benefit plans: a glossary of terms. 1987.

Fabozzi, Frank J., ed. *Advances in futures and options research, vol. 1, parts A & B.* 1986.

Granger, C.W.J. *Forecasting in business & economics.* 1980.

Levy, Haim, ed. *Research in finance, vols. 1 & 2.* 1980.

Meares, Charles. *Looking back: a memoir of New York Life.* 1985.

Mehr, Robert I. *Fundamentals of insurance.* 2nd ed. 1986.

Mehr, Robert I. and Gustavson, Sandra. *Life insurance: theory and practice.* 4th ed. 1987.

Library Donations

The SOA Library greatly needs back issues of the *Astin Bulletin* published by the IAA. All issues will be appreciated. Please send to: Society of Actuaries, Attn: Librarian, 500 Park Boulevard, Itasca, IL 60143.

Universal Life Reserves – Should Long-Term Sufficiencies Offset Short-Term Deficiencies?

by Douglas C. Doll

In June 1987 the American Academy of Actuaries' Universal Life Task Force (under the Committee on Life Insurance) issued a report on the topic of Universal Life Valuation and Nonforfeiture. One of the valuation issues discussed in the report was whether long-term sufficiencies should offset short-term deficiencies.

I would like to describe that issue in this article. I hope my thoughts will stimulate discussion about when, if ever, such offsets are appropriate for statutory valuations. Except for direct quotations from the report, any opinions given are mine and not the opinion of the Task Force.

The report includes the following paragraphs:

The issue of prefunding cash value increases in reserves has been addressed by the NAIC on more than one occasion in the past several years. So far, an explicit requirement for such prefunding has not been stated either in the Standard Valuation Law or in an Actuarial Guideline. We note that some actuaries believe the Standard Valuation Law should be interpreted to require such prefunding. Two arguments in favor of such prefunding are as follows: (1) "Life insurance and endowment benefits" includes intermediate cash values as part of the benefits; and (2) the Standard Valuation Law prescribes reserves for indeterminate premium plans must be computed by a method "consistent with the principles of this Standard Valuation Law." The method prescribed for policies providing uniform premiums and benefits provides adequate reserves for short-term as well as long-term benefits. When benefits and/or premiums become non-uniform, additional methodology is required to assure short-term benefit reserve adequacy.

Arguments against such prefunding include: (1) "life insurance and endowment benefits" does not include intermediate cash values; (2) standard actuarial practice does not include such reserve considerations; and (3) the "good and sufficient" portion of the actuarial opinion is sufficient to require adequate overall reserves.

Consider the simple example of a policy where the policy value and the cash surrender value both equal $1.00. If the guaranteed interest rate is 4% and the policy matures in 10 years, the guaranteed endowment is $1.48. The present value of this endowment, at a 6% valuation rate, is $.83. Let's now change the guaranteed interest rate to 10% for two years, and 4% thereafter. The guaranteed endowment becomes $1.66 and the present value at 6% becomes $.92. Note that adding the 10% interest guarantee increased the calculated reserve from $.83 to $.92, but that the "final" reserve was unaffected, because it was equal to the $1.00 cash surrender value in both cases. What happened in the second case was that the interest "sufficiencies" in years 3 through 10 are more than enough to offset the "deficiencies" in years 1 and 2.

The Universal Life Model Regulation has the same effects. A valuation basis more liberal than the ultimate product guarantees produces future "sufficiencies" that can be used to offset short-term "deficiencies." For example, a plan with an interest guarantee of 10% for 3 years and 4% thereafter may have no extra reserves created by the 10% guarantee if the valuation interest rate is 5%. The 1% sufficiencies beyond year 3 will offset the deficiencies in the first 3 years.

The Universal Life Task Force took note of its scope as described in its December 1986 preliminary report: "A key criterion for evaluating proposed revisions will be that they produce

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