



SOCIETY OF ACTUARIES

Article from:

# The Actuary

June 1975 – Volume 9, No. 6



# The Actuary

The Newsletter of the Society of Actuaries

VOLUME 9, No. 6

JUNE, 1975

## THE IMPORTANCE OF BEING ERNST

by W. H. Odell

Robert Posnak, *Ernst & Ernst GAAP—Stock Life Companies*, 653 pages, Ernst & Ernst, 1974.

Many individuals working with GAAP over the years found much of value in the Memorandum *Natural Reserves and Life Insurance Accounting* published by Ernst & Ernst in August 1970. They have been eagerly awaiting a sequel — a book which they hoped would be a comprehensive, well considered, and well illustrated exposition of a complex subject. This is the book and expectations have been more than fulfilled.

This volume will be sought after by every individual connected with GAAP work as a guide, as an explanatory text, and as a book of reference. This reviewer suggests that the Introduction be required reading for all actuaries whether or not they are actively at work in GAAP. To encourage them it should be mentioned that a most pleasurable aspect of the text is a visible sense of humor which starts in the Preface and is continued throughout. The light touch of Mr. Posnak is more than welcome in a volume of 653 pages on such an involved and onerous subject.

The success of the book is due in no small part to clarity of diagnosis of problems and objectives by those who initiated and managed the project. In the introduction, it is stated "the problem giving rise to this research project is the fact that the application of generally accepted accounting principles to life insurance companies has not definitely been determined. Underlying this general problem is the problem that the nature and practices of the life insurance business are not adequately understood from the accounting point of view." This text will surely go a long way toward promoting such an understanding.

(Continued on page 6)

## THE 1975 TRUSTEES REPORTS

by Robert J. Myers

The Social Security Act provides that, on or before April 1 of each year, the Board of Trustees of the OASDI trust funds and the two Medicare trust funds should submit to Congress reports presenting statistical operational data, future cost estimates, other actuarial analyses, and financing recommendations. Actually, there are three reports, for OASDI, for HI, and for SMI. The Board of Trustees consists of three cabinet officers (the Secretaries of HEW, Labor, and Treasury).

Of foremost interest in the 1975 reports is the one dealing with OASDI, because the financial plight of this program has been so much in the news in recent months. The 1974 report showed a very serious long-range financing situation in that there was a lack of actuarial balance of 2.98% of taxable payroll, or a cost over-run of about 25% relative to the tax income. This year's report shows an even worse situation — namely, an actuarial deficiency of 5.32% of taxable payroll, or almost 50% of the average value of future taxes. This is certainly a far cry from the situation that prevailed before the 1972 Amendments, when the "acceptable limit" on the actuarial imbalance was 0.1% of taxable payroll, or about 1% relatively, and this limit was almost always maintained (or else prompt corrective action was taken by Congress).

The increase in the OASDI actuarial deficiency under OASDI results primarily from a change in the long-range economic assumptions. The 1974 report assumed annual rates of increase in earnings in the ultimate situation of 5% per year, as against 3% increases in the CPI. The 1975 report uses 6%/4% assumptions. Some 83% of the increase

(Continued on page 8)

## ACTUARIES AND ASSETS

by Irwin T. Vanderhoof

Over the past five years, an increasing number of actuaries have become concerned with the asset side of the balance sheet. Many papers on investment topics have been presented and several actuarial consulting firms have begun including investment advisory work in the services they offer to clients. Clearly, an area of actuarial responsibility exists here which so far has not been well-defined.

The following definition of the responsibilities of the actuary in investment matters has no formal endorsement by any actuarial body or company, but has been discussed with other actuaries who have offered no serious disagreement. Once stated, these responsibilities should seem obvious to everyone. All comments and criticisms are welcome, since I feel the profession must decide upon a course of action or allow this matter to escape us as has the question of adjusted earnings.

In this article, I will be referring to those responsibilities that we have automatically because we are actuaries, not those which individual actuaries may have because of non-actuarial expertise. Choice of specific investments is *not* one of these responsibilities. Some actuaries may be proficient in this area, but it is not an integral part of the material of the profession.

What is the basic responsibility of the actuary? I think it is the determination of the surplus of a fund (or the determination of the adequacy of implicit margins in the assumptions, which is inherently the same). Surplus has traditionally been the difference between the liabilities the actuaries have been concerned with and the assets they have merely accepted. This unilateral concern

(Continued on page 4)

## Actuaries and Assets

(Continued from page 1)

may have been adequate when interest rates varied moderately at moderate levels, but is certainly not adequate today.

If we, on one hand, value assets of a fund at market (anything other than market is fictitious) and, on the other, value liabilities at a liberal interest rate (say 4%) consistent with long term experience in many countries, we all know, that the fund is, or will be, insolvent. There is nothing inherently wrong with the basis for either the assets or the liabilities, but something is wrong because inconsistent valuation standards have been used.

Various stratagems have been developed to avoid the effects of market valuation of assets. In my view, they are legitimate only to the extent that their effect is to redress the distortion of inconsistent standards.

The *first responsibility* is then:

To determine that the valuation of assets and liabilities is reasonably consistent, so that the surplus of the fund is not distorted by differences in valuation standards.

Obviously, to fulfill this responsibility, the profession needs to become far more active than it has been in working on standards for valuation of assets.

If our basic responsibility is to determine the safety of a fund, then from that flows a responsibility to give advice that can improve the return and safety of the fund. Consider a fund where the liabilities are exclusively annuities already in process of payment — a closed fund. The investment manager informs us that the assets are exclusively in one and two year treasury notes; the yield is high; and safety of principal is unequaled. There is nothing wrong with the assets, but the assets are wrong for the fund. Since the certainty of future payments to the beneficiaries is jeopardized, the surplus of the fund should be reduced by a lower valuation rate on the liabilities. The trustee should be informed that this has taken place, and that a different kind of asset, with the same return, would justify a higher liability valuation rate, and hence a higher surplus for the fund. Similarly, while common stocks are fine investments,

more than a small proportion of the above fund should not be invested in them because the nature of the fund needs stable long term return.

The *second responsibility* is then:

To prepare for the fund manager and trustee information as to the return, kind of assets, and risk level of assets that are appropriate for the particular fund. The fund manager cannot do this for himself.

Additional work for the profession is also needed here.

The third responsibility is not so specific to the actuary — others could do it. This is to provide information on the performance of the fund. All actuaries spend time and money on well justified mortality studies (judging the performance of our underwriters), lapse studies, and expense analyses. But investment operations is where the action is now. The difference between a good and a bad fund manager might be far more important than underwriting or expenses. I say "might" because there is no acceptable method for measuring the performance of the general account of a life insurance company or fixed dollar part of a pension fund — a shocking fact. The difficulties in this area are most serious. I am trying to develop some methods for handling this problem.

Some actuaries have rejected this responsibility on the grounds that the investment people should have it or that they would be insulted if we tried to take it. We say that we cannot provide this information because no method exists. I don't think the investment people would be insulted. In fact, the ones I have spoken to would be very happy to have some method of judging their own performance, just so they could determine which strategy works best, and so improve their performance.

My *third responsibility* for the actuary is then:

To provide appropriate performance measurement data on the results of the investment operation.

These are my three investment responsibilities of the actuary. None of them can easily be discharged today. Many of the needed tools do not yet exist. However, these are the things that need to be done. Consistent valuation

standards must be developed; advice about the appropriateness of a given investment must be provided; and performance must be measured. We are reasonably qualified to perform each of these functions, and better qualified than any other group. However, if we do not take action to discharge our responsibilities, another group more aggressive and enterprising than we are will take this over from us (probably the accountants, again).

Can these responsibilities be handled? I think that the answer is yes. If actuaries are willing to apply the same energy and imagination to this material that they have applied to risk theory, prompt solutions and techniques should be forthcoming. The important thing to remember is that the raw data for the analysis already exists, though not in the actuarial literature. There are immense amounts of material on the risk and return characteristics of various quality bonds and stocks but only performance measurement theories for stocks. General agreement is emerging on the factors that affect security prices, and knowledge of them can lead to real understanding of the effects of economic forces upon them.

The challenge exists, and the data needed to answer that challenge are available. This would be a fine area in which the Society could make its first statement of opinion. □

### Growth of Legal Reserve Life Insurance Companies

The Institute of Life Insurance (277 Park Avenue, New York, New York, 10017) has just completed a compilation of data showing the growth of major U.S. legal reserve life insurance companies in various asset size, mutual and stock company groups.

Another recent publication is "Basic Life Insurance Statistics by Type and Size of Companies" which gives 71 pages of data from 1973 annual statements. These data include statistical tables, balance sheet items, summary of operations, and key statistics by line of business for companies in various asset size groups. Mr. Robert Chiappetta at the Institute will forward free copies of either or both to any of our readers.