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ASSET VALUATION AND FAIR MARKET VALUE

by Miguel A. Ramirez

I have been concerned with the ERISA funding requirement for pension plans that prescribes an asset valuation method which takes reasonable recognition of fair market value. In this article, I would like to discuss three methods in which market values could be averaged to eliminate the detrimental effects of periodic fluctuations in the bond and stock markets.

Generally speaking, I am troubled by using market value as of a particular date to compare with actuarial present values involving long-range assumptions, especially if the comparison is to form the basis of a funding standard determination for the coming year. For actively traded securities, such as common stocks, day to day and even year to year fluctuations may create unreasonable dislocations in the pension expense.

In a period of instability, two funds with comparable numbers and kinds of securities, plans, and covered employees but different valuation dates could be required to adhere to materially different standards. If the market exhibited perceptible seasonal trends, the sponsor could conceivably select a particular valuation date in order to achieve one funding extreme or another without concern for the welfare of the employees covered or the security of their benefits.

The first method of avoiding the fluctuation problem is to value each security at an average of the market values sampled over a period of time surrounding the valuation date, i.e., a month, 6 months, 2½ years. The bigger the averaging period, the more effectively dampened are momentary fluctuations. Unfortunately, the longer the period,

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OASDI AND ALL THAT

Elmer B. Staats, Comptroller General of the United States, *Financial Problems Confront the Federal OASI and DI Trust Funds*, pp. 21, General Accounting Office, Washington, D. C., July 25, 1974.

by Robert J. Myers

This report by the GAO was prepared at the request of Congressman Wolff and is an excellent summary of the various recent studies on the financial problems confronting the OASDI system. Four of the studies have been recently reviewed in *The Actuary: An Actuarial Audit of the Social Security System* by Kaplan and Weil (April 1975), the 1975 *Trustees Report* (June 1975), *Report of the Panel on Social Security Financing to the Committee on Finance, U.S. Senate* (May 1975), and *Reports of the Quadrennial Advisory Council on Social Security* (October 1975). Also considered in the report are editorial comments by *The Wall Street Journal* which first impelled Congressman Wolff to request the GAO Report.

The GAO Report is essentially a recapitulation and comparison of the conclusions of the several studies and can be recommended to the reader who has not an opportunity to review the original reports.

There are one or two minor technical flaws. For example, on page 8, it states that the Advisory Council made four "benefit" recommendations to solve the financing problems. Actually, only one of these (decoupling) was of any significance in this respect; the other three recommendations (eliminating the monthly earnings test, freezing the minimum benefit, and obtaining universal coverage) were made for other than financing reasons.

Also, at the bottom of page 12, it is incorrectly stated that the maximum tax-

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FINANCIAL REPORTING FOR LIFE COMPANIES IN CANADA

by Mike Rosenfelder

In Canada, the actuarial considerations involved in developing financial reporting and disclosure principles have for some years been under active study by the Canadian Institute of Actuaries and others, with careful attention being paid to recent pronouncements in this area by the Academy in the United States, and by the Institute and Faculty in the United Kingdom.

There has been in Canada a general desire to avoid a multiplicity of statements, thus leading to a search for a single statement which would satisfy the needs of all the various users, including the regulatory authorities, current and future policyholders, stockholders, and other readers.

In the Spring of 1974, the Council of the Canadian Institute of Actuaries released to its membership a Committee Report which discussed a number of actuarial principles as they might be applied to financial reporting in Canada. Studies were also prepared by the Canadian Institute of Chartered Accountants, and by the Canadian Life Insurance Association.

Later that year, the Federal Superintendent of Insurance formed an "Advisory Committee" involving representatives from the two interested professions, the industry, and the Provincial Insurance Departments, with a view to developing a set of reporting principles which would indeed meet the needs of the various users, and would at the same time reconcile the views put forward by the various interested bodies.

This Committee completed its assignment, and in May of 1975 a written

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Canadian Reporting

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proposal was made by the Federal Superintendent to the Canadian Life Insurance Association outlining in general terms a possible reporting procedure. Discussions are currently proceeding in a number of quarters, but primarily between the Superintendent and the industry, and it is currently expected that new legislation will be introduced very shortly, with implementation probably by the 1978 year-end.

These new proposals have a number of very important implications for actuaries responsible for signing Company Statements, and indeed for the actuarial profession as a whole. The proposals as they now stand involve very substantially increased responsibilities for the actuary. The profession must rise to meet this challenge. The Canadian Institute of Actuaries is studying the various ramifications of these proposals and in due course it is expected that principles will emerge designed to guide the actuary in Canada in discharging these new and increased responsibilities. Some of the principal new concepts are as follows:

(1) The present Department of Insurance Annual Statement requires that the actuary certify that the reserves are not less than those required by the Insurance Companies Act, and that they make "good and sufficient" provision for the company's obligations. This is essentially a one-sided certificate, and especially where a company has adopted a relatively conservative posture in establishing reserves, the judgment element involved in completing this certificate is relatively limited. Under the current proposals, the actuary would be required to state that the reserves are "adequate and appropriate." This poses a large number of additional problems for the actuary, including the need to reconcile the sometimes conflicting requirements of solvency on the one hand, and current income measurement on the other.

(2) The law currently specifies a maximum interest assumption of 3½% for life insurance and 4% for annuities (with a further provision that the Superintendent may at his discretion permit higher rates, a discretion which he has exercised for single premium

annuities and certain specialized contracts). It is envisaged that in the future the company's actuary would determine a valuation basis which, in his opinion, is appropriate to the business being valued and to the circumstances of the company. He then would apply to the Superintendent for approval. It is possible that regulations might from time to time be promulgated indicating the broad range of assumptions for which approval would be more or less automatic.

(3) The use of withdrawal rates in determining the actuarial liability will be permitted, although not mandatory. It is expected that initially very few companies will wish to move to double decrement reserves, although ultimately it is expected that Canadian actuaries will need to develop techniques in order to reflect withdrawal rates.

(4) The audit of invested assets is outside the actuary's defined area of responsibility. However, in giving his opinion with regard to the adequacy of the reserve liability, he will be expected to have considered, and probably also state in his written Opinion that he has considered the nature of the assets in arriving at a valuation interest assumption.

(5) The actuary will be expected to have satisfied himself that appropriate provision has been made for future maintenance expenses.

(6) If, in arriving at the liability for participating business, he has had to assume any major change in current dividend scales, he will be expected to so state in his published Opinion.

(7) It is proposed that the allowance for acquisition expenses continue to be made through a reserve modification, and that the legislation will permit a maximum modification, which, while probably less than actual expenses in the case of most companies, will be somewhat more liberal than the present modification permitted by Canadian law. Again in giving his Opinion the actuary will be expected to have satisfied himself as to the adequacy of the modification to the reserves for deferred acquisition expenses, presumably through tests of incurral and recoverability from loadings on future premium revenue.

All of these areas seem to fall clearly within the competence of the actuary,

and in the sense that they have always entered into pricing considerations and, to a lesser extent, into the determination of reserves, they are certainly not new. However, in developing Statement reserves, the actuary will in future have far greater flexibility and freedom, and there is a clear and urgent need for guidelines, either formal or informal, to be developed by the profession so as properly to equip its members as they undertake these wider and additional responsibilities in connection with Statement reserves. The Canadian Institute of Actuaries is working actively on these problems.

To round out the discussion of proposed statement changes, brief reference should also be made to the treatment of asset values and investment income. For common stocks, and possibly real estate, unrealized gains and losses will be recognized through the income account in a controlled manner, subject to minimum "threshold" levels for appreciation or depreciation. For mortgages and redeemable bonds, book gains or losses on sale will be spread through the income account over the remaining lifetime of the security sold. Investment reserves will be established to provide for possible default on debt securities, and for situations where market values are less than book values.

Finally, of some interest is the role of the external auditor as it relates to the statement as a whole, and in particular to the actuarially determined liabilities. It is proposed that both the Statutory Statement filed with the regulatory authorities and the "Members' Statement," the name used for the Statement presented at the annual meeting, be accompanied by the actuary's Opinion with regard to the actuarially determined items in the statements, and by an auditor's Opinion with regard to the statements as a whole.

It is not however expected that a detailed review of the work of the in-house company actuary would, in normal circumstances, be required. It is further proposed that the reserve liability be the same in both statements, and that, to the extent that other items in the Members' Statement might be different from those in the Statutory Statement, the unappropriated surplus must be ad-

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Asset Valuation

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the longer the delay in obtaining the current funding standard.

To overcome this delay, the second method would average market values over a period ending on the valuation date, updating the value on the basis of some interim yield assumptions, perhaps even the actuarial interest assumption used for discounting benefits. This method has the disadvantage of postponing, to some valuation date in the future, interest gains or losses from the point of updating to the valuation date.

I would like to specially recommend a third method of valuing assets subject to wide fluctuations in market value and yield (including dividends, and realized and unrealized capital gains and losses). With this method, the positive or negative yield is not directly credited to the asset value held for valuation funding purposes. Valuation assets are, instead, credited with a stabilized yield (which could be the average dollar weighted rate of effective yields over a 5-year period ending on the valuation date, the valuation rate itself, or a blend of the two). The excess (positive) or deficit (negative) yield would consist of the actual yield on assets valued at fair market less this stabilized yield. This excess (or deficit) is deferred by crediting (or charging) it to a special valuation item with records of such transfers kept in separate schedules which are amortized in equal payments over a number of years after the year of credit or charge.

Thus, in a particular year, the amount of yield credited to the asset as valued would equal the sum of two items: (a) the stabilized yield; and (b) credits (charges) to discharge previous excess yield credit (deficit yield charge) deferrals. The maintenance of separate schedules of yield deferral allows the special valuation item to become self-discharging over a selected finite period of, say, 5 years. In times of fair market value fluctuations, excess credits should tend to offset deficit charges, reducing the effect of (b) above on the annual yield recognized for funding purposes. Moreover, a single fluctuation in an otherwise stable period will make the valuation asset deviate appreciably from market for only those 5 years.

Table 1 (right), illustrates this.

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able earnings base in 1990 will definitely be \$31,800, on the basis that this figure was developed at one time by the Social Security Administration (on certain assumptions as to the future trend of wages). The report states that an individual earning \$14,100 in 1975 will, according to the assumptions in the 1975 Trustees Report, be earning \$33,880 in 1990. The latter figure is based on an annual rate of increase in earnings of 6%, but this is the ultimate assumption in the Trustees Report, with higher rates in the short term. Using those assumptions, a person earning \$14,100 in 1975 would earn \$38,305 in 1990 — and thus the earnings base then would be close to this level.

The GAO report did not give a specific reference to the *Wall Street Journal* article which aroused Congressman Wolff's interest. Actually, the newspaper had quite a number of articles and editorials on the subject of Social Security financing (including one of mine in its July 28, 1972 issue). In a later editorial than the one considered, the WSJ changed its position from considering the long-range deficit in terms of dollars from the "closed fund" basis referred to in the GAO report to what I believe is the far more appropriate approach of the "75-year income and outgo" basis.

Pacific Insurance Conference

Actuaries can find ideas and information in the papers presented at the Seventh Pacific Insurance Conference last September.

The subjects of this meeting were: A Foundation for a Common Understanding; Effects of Inflation, Economic Development and Government Policy on Life Insurance Protection and Pension Programs; Current Developments in the Design and Distribution of Life Insurance and Pension Program Products and Services; A Basis for Improving Public Understanding and Acceptance (of) Life Insurance and Pension Programs in Pacific Rim Countries.

A copy of the papers is available for the mailing cost (approx. \$10.) from E. J. Moorhead at the address in the Society Year Book.

Canadian Reporting

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justed as necessary to bring it to the same level as in the Statutory Statement.

Both the Statutory Statement and the Members' Statement would be accompanied by an Opinion or Report from the external auditor, including, if he is unable to give an unqualified opinion, an indication of the nature and reasons for such qualifications. However, the supervisory authorities would not regard as a qualification requiring special explanation or action by them, a statement by the auditor that in respect of the actuarially determined liabilities he relied on the actuary's Opinion.

Table 1 †
Crediting of Investment Yield *

Year N	(1) Total Current Yield on Market	(2) Stabilized Yield Rate Applied to Market	(3) Deferred Yield (1) - (2)	(4) Credits from Prior Deferrals (Rounded)	(5) Yield on Adjusted Value (2) + (4)
1970	\$ 4.4	\$ 4.0	\$ 0.4	\$ 0.0	\$ 4.0
1971	6.6	5.2	1.4	0.1	5.3
1972	19.7	9.4	10.3	0.4	9.8
1973	-10.6	7.2	-17.8	2.4	9.6
1974	-25.6	-1.7	-23.9	-1.1	-2.8

* The stabilized rate is the average dollar-weighted rate over the 5 years ending on the valuation date. In every case, yield includes unrealized capital gains and losses.

† This is a condensed version of the tables supporting the article. Copies of these can be obtained on request from the author at Equitable Life, 1285 Avenue of the Americas, New York, N. Y. 10019.