The Actuary

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AGAINST TAX-EXEMPT INVESTMENT INSTRUMENTS

by Clayton A. Cardinal

Many considerations enter into the determination of investment strategy. Important among these considerations is the maximization of investment income on an after-tax basis rather than on a before-tax basis. Because of the complexity of the federal income taxation of life insurance companies, the determination of after-tax investment income and thus the realization of maximizing such income are not easy undertakings.

Beginning in the early 1960's after-tax investment yield for each of the major classes of investment instruments has been analyzed by many life insurers by what is commonly referred to as the marginal tax rate approach. For a number of insurers such analysis of the impact on these investment instruments of the marginal tax rates resulted in a change in investment strategy from corporate bonds to municipal and other similar tax-exempt bonds. The assets of some of these insurers are heavily invested today in such tax-exempt instruments. For these insurers much of the increase in corporate assets since the early 1960's has been invested in the tax-exempt instruments.

Two important considerations in the determination of investment strategy receiving more attention today than in the recent past are (1) the servicing of an investment instrument and (2) the preservation of the principal of the investment. Servicing an investment instrument embodies for the most part the payments such as interest, dividend, mortgage, or the like which are required by the terms of the instrument. It is a consequence of these additional considerations which leads me to the following recommendation.

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THE TRUST FUNDS

1977 Annual Reports of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, of the Federal Hospital Insurance Trust Fund, and the Federal Supplementary Medical Insurance Trust Fund.

by Benjamin R. Whiteley

An excellent introduction to the 1977 Annual Reports of the Board of Trustees of the Social Security Trust Funds, in this reviewer's estimation, may be obtained by reading the Commentary Prepared to Assist in the Reading and Interpretation of the Reports. The Commentary was prepared by A. Haeworth Robertson, Chief Actuary of the Social Security Administration. This is the second year we have had the benefit of Mr. Robertson's Commentary which is easily readable and extremely helpful.

As in previous recent years, there are three 1977 Trustees Reports: one for the Federal Old-Age and Survivors Trust Funds; one for the Federal Hospital Insurance Trust Fund; and one for the Federal Supplementary Medical Insurance Trust Fund. Each of the reports is organized similarly. Major sections are devoted to highlights, an explanation of the nature of the trust funds, a summary of operations of the funds for the past fiscal year, projected operation and status of the funds, a statement of the actuarial status of the trust funds, conclusions and appendices. The appendices contain assumptions, methodology and other details.

Old-Age and Survivors Insurance and Disability Insurance Trust Funds

Continuing the pattern of recent years' reports, this report calls attention to the need for additional financing for the Old-Age and Survivors Insurance and Disability Insurance Trust Funds in both the short and long range. The excess of

(Continued on page 6)

AN UNLOADED QUESTION?

by John W. Grantier

On June 23, 1977 the Supreme Court ruled that a life insurance company must include the net valuation portion (but not the associated loading) of deferred and uncollected premiums in its assets and gross premium income as well as in its reserves in computing its tax liability. Some companies have been using this procedure or a modification of it for the past few years. Other companies have been filing returns conforming to IRS regulations which required including gross deferred and uncollected premiums. These companies may need to file amended returns for open tax years if they paid taxes not due or understated usable operations loss carryforwards.

The purpose of this article is to review the implications of the court's decision for companies filing amended returns. It does not discuss: the IRS's extension of the deadline for filing Form 3115, Request for a Change in Accounting Method, to September 30, 1977; whether or not these changes represent a Change in Accounting Method; or any alternative procedures for handling these changes.

One question to be answered is "How far back must amended returns be filed?" One possible answer is five years back, since operations loss carryforwards developed after 1972 will have expired before 1977. (For "new" companies, substitute eight years and 1969). The 1972 return, however, includes understated earnings rates for each of the four previous years (based on overstated assets), which may be used in computing the policyholder's share of taxable investment income. These earlier year earnings rates will be used in 1972 and later if their average is less than the current earnings rate, which will be

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The Actuary

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EDITORIAL

THE actuarial profession is still striving for recognition and we sometimes wonder how best to promote our cause with our principal publics, with government authorities (Federal and State), with the public at large (particularly the consumerists) and last, but not least, with the managements of the insurance companies. These last are included because we are not too sure that the companies are making the most use of the skills of the actuary as a corporate officer. This neglect, if our assumptions are correct, is not confined to the smaller companies.

One line of attack on this problem of recognition is through public relations. The achievements of that profession are not to be belittled but the process takes time and generally a considerable amount of money.

Maybe we should try to define what sort of profession we are. Sometimes we think of ourselves as scientists, practitioners of actuarial science. This is comforting since it suggests that the mystique in which we clothe ourselves is not like the Emperor's clothes.

Perhaps our cause would be advanced by showing to our publics, from the program for the annual meeting, the many facets of the actuary (i.e. of the profession—no actuary can know all about everything!) The subjects discussed at the meeting would appeal to different sections of the publics.

For example *ERISA—Current Developments* would be of importance to employers with pension plans while *The Evolving Regulatory Environment for Health Care* would discuss a topic very much in evidence these days. *Application of Modern Mathematical Theory in the Life Insurance Business* should encourage the laity to trust the actuary since mathematics are held in high repute by the non-mathematical. *Determination of Earnings by, and within, Lines of Business* would be a comfort to the investor and possibly to the accountant, as would *How to Value a Life Insurance Company*. We would expect *Management of the Actuarial Resource* to make for interesting reading for life company Presidents.

The topics should be carefully chosen. *Actuarial Softwear* for example, might suggest shirts with buttondown collars. A brief reference to the social events of the meeting would be in order if only to show that actuaries sometimes break out of the shell in which they are supposed to contain themselves.

A.C.W.

TO BE CONTINUED

New York Actuarial Research Conference

by Robert A. Lyle

The twelfth annual Actuarial Research Conference was held September 8-10 at New York University. The conference, jointly sponsored by the Society's Committees on Research and on Economics and Finance and the NYU Graduate School of Business, was structured around the theme of "Modeling Financial Markets" and attracted about ninety participants.

The opening session of the conference was devoted to discussion of the capital asset pricing model (CAPM) by Professors W. Michael Keenan, Stephen Figlewski and Edwin J. Elton, all of NYU. The CAPM postulates a diversified portfolio, in which enough different securities are held to eliminate the risk of random movements in individual securities; the remaining risk is known as "non-diversifiable" or "systematic" risk. A diversified portfolio can be expected to move with the market, with swings which are a magnified or dampened reflection of the market depending on the riskiness (Beta coefficient) of the securities held. The relationship between Beta and rates of return in excess of the risk-free return can be used to develop a theory of the pricing of risk securities.

The second session turned to the topic of debt instruments. Professors William L. Silber and Kenneth D. Garbade of NYU led the group in a discussion of the effects on securities prices of money supply, Federal Reserve operations and inflation, then turned to an exposition of the term structure and the risk structure of security prices.

In the third session, Gil Hammer and Robert Bein examined the use of simulation models in the evaluation of investment policy and strategy for pension funds. William Fairley then showed how the CAPM can be used to derive a target rate of return for a regulated industry, and how this can be applied to automobile insurance to calculate reasonable levels of underwriting profit.

The final two sessions of the conference were devoted to related topics in actuarial research. Phelim Boyle related

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LETTERS

Inequity of Equality

Sir:

The question of equality of benefits and premiums between men and women has been much discussed in recent years. The immediate question has concerned pension benefits under defined contribution plans but the argument has been extended to other areas.

The argument by opponents of equalization of benefits and premiums runs somewhat as follows: Removal of differentiation will increase the price of some products to the point where they cannot be sold. Insurers who cover a relatively larger portion of men or women (depending on adverse selection for the particular product) will be forced out of business. The domino effect on other products and insurers and ultimate removal of "age discrimination" will eventually destroy the insurance industry.

Proponents, myself included, believe that sex should be removed as a differentiation just as race was removed in 1940s. In the case of race discrimination, the insurance industry anticipated a public policy change. In the case of sex, the industry is hanging on to tradition in the face of a public policy change. Removal of sex differentiation will obviously affect some prices and benefits but pooling of male and female experience will not greatly disturb the insurance industry if everyone moves together.

The purpose of this letter is not to further discuss the above arguments but to protest the public posture of the actuarial organizations. Editorials and substantial amounts of space in *The Actuary* have been dedicated to the doomsday prophecies of the opponents and most public statements by actuaries are on this side. Are the members of the Academy and Society so united on this question or is there honest divergence of opinion?

The handling of the appointment and report of the Task Force on Risk Classification has led me to believe that some members of the Academy may be deliberately suppressing minority opinion on this subject. An active proponent was placed on the task force at my request. There had apparently been no attempt to recruit any proponents before this. She was assigned the group pension area and developed a paper on that area as her responsibility. At no time during the task force meetings was there any discussion about deleting the pension area, yet the final task force report was prepared without it. This was a rather surprising development since the pension question is currently the major issue.

There are several points about the report on risk classification that are interesting. The report is typed as a draft but presented in yellow cover as a final product. The report is not signed and the names of the Chairman and of the task force members do not appear anywhere. The main current question, pension benefits, is ignored while there are major sections on the, at best, peripheral subjects of property and casualty and automobile insurance.

The public stand of the profession on this issue brings to mind two other prominent public positions. One is the adamant position of the American Medical Association, supported by the insurance industry, against any form of Medicare in the early 1960s. You may remember that the passage of Medicare thirteen years ago was to lead to socialization of medicine and the disappearance of the health insurance industry.

The other position is that of Governor Wallace standing in the school house doorway to prevent the integration that he stated would lead to the collapse of the public school system.

Any comparison of the amount of health insurance for those over age 65 and the quality of education in the South before and after these actions easily illustrates the tunnel vision of the AMA and the Governor.

I have no problem being a member of an organization which has a public position which differs from my personal one. I do have a problem, however, if the public position of the profession is not based on a poll of the members and if there is evidence that minority opinion is being suppressed.

Edwin C. Hustead

* * * *

Sir:

In the ongoing controversy over discrimination in the use of separate annuity tables to determine pension benefits for men and women, an argument of Barbara R. Bergmann has repeatedly surfaced, possibly because of its surface appeal. In brief, Ms. Bergmann's thesis is that established differences between male and female mortality are insignificant because, . . . based on the a-1949 Tables projected 25 years, 800 deaths ultimately occurring in an initial cohort of 1000 female lives, each aged 65, can be matched with 800 male deaths, ultimately occurring at the same ages from an initial cohort of 1000 male lives, each aged 65. In the June issue of *The Actuary*, Robert J. Johansen has given a clear rebuttal to this line of reasoning. However, I would like to offer the following less rigorous, but I hope illuminating, perspective.

The overlap of 80% of two distributions may appear to be strong evidence of overwhelming similarity of the distributions. However, it is really irrelevant since it is no guarantee of insignificant consequences(and in fact is probably an indication of the contrary more often than not). For example in 1976 the Cincinnati Reds won 102 and lost 60 games while the Atlanta Braves won 70 and lost 92 games. By suitably pairing the Braves' 70 wins with 70 of the Reds' victories, and 60 of the Braves' losses with 60 of the Reds' defeats, one could observe that in 130 out of 162 (just over 80%) of the games each team played, the results were identical. However, the other 20% (wins for the Reds and losses for the Braves) cannot be ignored because they accounted for Cincinnati finishing first in the Western Division of the National League while Atlanta finished last in the same division. It might be mentioned that similar situations existed in the other three Major League Divisions as well, the overlaps between records of the first and last place teams being 72%, 80%, and 84%.

David Sanders

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Sex and the Single Table

Sir:

Miss Lautzenheiser's excellent article in the February, 1977 issue sought valiantly to assure the layman (laywoman?) that there are inherent differences in annuity costs between males and females; however the reprise (in your September, 1977 issue) questions the propriety of different benefits for members of "a given group formed by common employment."

I would like to supplement her reply in several respects.

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Letters

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First, I would note that rationally-designed employee benefit programs routinely reflect differences in conditions pertaining to employment (e.g. length of service, earnings levels, etc.) in determining benefit amounts (life insurance or disability income equal to a multiple of earnings, for example). These distinctions will, we trust, continue to be acceptable.

Such plans are considered non-discriminatory as to *benefits*, although per capita costs may vary widely due to age, sex or even marital status. There is a degree of "social planning" inherent in the plan sponsor's decision to provide a uniform pattern of benefits, irrespective of individual costs.

By contrast, certain plans — notably Defined Contribution Pension or Profit-Sharing Plans — focus on uniformity of costs. The basis for equity is, therefore, equity in costs, not benefits. When such plans, having accumulated uniform sums for participants — male and female alike — provide a uniform lump sum payout for both, equity is served.

Trouble ensues when these plans translate equal accumulations into unequal monthly pensions, due to valid sex differentials in annuity rates. We see the difficulty of Miss Lautzenheiser's task when her success in validating rate differentials is frustrated by a demand for equity in benefits — under a plan clearly designed to provide equality in *contributions.*

Should Unisex proponents prevail, such plans would be required to provide equality of costs *and* benefits — an actuarial feat comparable to "squaring the circle."

There is, of course, a silver lining! Many actuaries who share my distaste for Defined Contribution Plans will applaud their demise, albeit for the wrongest of reasons.

David R. Kass

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Sir:

Being avidly interested in Sex, I have followed Barbara Lautzenheiser's articles with great interest. However, I am completely baffled by one of her comments in the September *Actuary* in which she uses the word "mandation" twice in the same sentence. Alas my dictionary could not help me. Assuming that a new use for an old verb has been found for the fight against the Single Table, one would have expected her to at least have given equal time by coming up with "womandation" the second time around.

Lawrence T. Brennan

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Pension Terminology — Why Change?

Sir:

A great deal of work has been done over the past few years in an attempt to clarify and standardize actuarial terminology used for pension plans. I support such attempts to standardize and further clarify the terms used by actuaries in the pension field. However, it appears that the most recent attempt may only frustrate this end.

I had an opportunity to review the August 15, 1977 Exposure Draft, Pension Terminology Report, of the Interprofessional Pension Actuarial Advisory Group. As I began to review the detail of this draft, making margin comments on various definitions and notes, it became more and more obvious to me that my concern was not with the detail of the way in which the revised terminology was defined, but rather with the whole concept of making these changes.

I am strongly against making significant changes in presently used *common* terminology. For example, the terms "liability", "unfunded liability", "accruel liability", "unfunded prior service costs", etc., are being used extensively outside our profession by administrators, accountants, financial executives, the investment community, government agencies, legislators, and on and on. Granted, the understanding of the true meaning and implication of these terms, and the interrelationships (or lack thereof) of the terms when used in different contexts, is relatively poor. Even so, I think it would be a great disservice to our public to change to a completely new set of terms at this time, and discard the old ones for replacements that aren't even as clear in themselves as the present terms. As scary and onerous as the word "liability" is in many quarters, it is far more accurate in itself than a "Supplemental Actuarial Value" which, for its element of original past serv liability, is not supplemental to the plan's requirements at all.

To substitute "Annual Actuarial Value" for "normal cost" or "current service cost" is even worse from the standpoint of self-defining terminology, although the departure from the term "liability" is more serious because of the great attention being focused on that term or concept today.

I recently attended a symposium on public retirement systems, and heard a definite undercurrent of distrust of actuaries and the way they work, and how they seemingly guard their mystique to perpetuate it. If we were to completely change the terminology now, just when these people and others may have *begun* to understand and trust the concepts embodied by the present terminology, I can see a worsening of this distrust and a stronger suspicion that actuaries prefer to mystify rather than educate.

I would prefer acceptance of the more common terms in use now (that have some decent longevity) and identif tion of those which are synonymous.

William J. McDonnell

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Pensions and Survival

Sir:

Rather belatedly, I have just read Robert J. Myers' review of Geoffrey Calvert's book in the May issue of *The Actuary.*

Two points suggest taking a rather different view of the extent to which national Social Security benefits should be funded.

First, assume that full funding is aimed at but the money invested in Government Securities; has anything been achieved? All that has been done is to set up "paper" reserves; the money has been taken out of circulation by means of Social Security contributions instead of by sales of Government stock, but the reserve anyway is another pocket of the same source.

The second aspect of funding is ... extent to which advance provision can be made to meet the needs of those who have retired. The food they eat, the clothes they wear and the medicine they need, all have to come out of current production. Even the houses they live in have to be painted and repaired though the mortgage should have been paid off.

Let me make it clear that I am not against funding Occupational Pension Funds. I would not advocate the Répartition system followed in France, but it seems to me that we are erring in our theory if we think that a man's wants in retirement can be fully satisfied by provision made before he retires. Looking at the position over the country as a whole, some advance provision clearly needs to be made and one can take the reserves of Occupational Pension Funds to represent that, but what comes out of current production is a transfer charge and it seems misleading to me to try to disguise it.

D. H. Miles, F.I.A.

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Cost Comparisons

Sir:

Currently in the U.S., the preferred method of life insurance cost comparison is the "interest adjusted surrender index" as is incorporated in the NAIC Model Solicitation Bill. Most of the developmental research and discusson of cost comparison was focused on the "method" rather than quantifying the "time value of money." Essentially, most authorities consider "time value of money" to be defined as "reasonable riskless investment return less personal income tax." Although this prior statement seems self-evident, I will devote this letter to describing my reservations with this definition of the equitable yield of a life insurance policy.

In the investment world, risk and liquidity are also important considerations in appraising the equitable yield of an investment. The mortality risk which the policyholder is subject to is the loss of his cash value, since the interest adjusted surrender index does not make any "amount at risk adjustment." The lapse "risk" is a liquidity problem, since early surrender results in a poor return on investment due to the heavy front-end expenses. The investment risk for the policyholder is the non-guaranteed nature of dividends and the resultant uncertainty of investment return. In short, "investing in life insurance" involves more risks than the solvency of the insurer. If a financial analyst computed the necessary "market rate of return" to make life insurance a competitive investment, his estimate might well exceed the policy loan rate of interest!

Many people might view "time value of money" relative to their own personal circumstance rather than financial markets. Their time value may be between 12% and 30% a year if they are so short of cash as to borrow from banks or finance companies. However, we must set a ceiling on "time value of money" at the policy loan rate for practical financial reasons. On the other hand, the relationship between the yield of a life insurance policy and the valuation rate of interest is more apparent than real — as has been demonstrated many times in the literature.

To summarize, it is important that Life Insurance Cost Comparison be both simple and realistic. The only place where realism can affect the "interest adjusted surrender index" is the choice of the "time value of money" interest rate. The current rate of 5% interest used in these comparisons was arrived at by taking into account personal federal income tax but disregarding the liquidity, investment risk and other adverse aspects of a life insurance investment. A more balanced point of view, in my opinion, would have led to an interest rate of 6% to 8% for interest adjusted cost calculations. Can the life insurance industry expect the public to accept low interest rates where convenient to the industry and high rates where it is necessary (i.e. policy loan rates) for the proper functioning of the industry?

Harry Ploss

* * * *

Non-Par Life Insurance

Sir:

In the September issue Jack Moorhead has challenged us to consider whether it is appropriate to write permanent life insurance in the non-participating form. Jack has put forth a very powerful argument for not doing so, namely, that future interest rates, at which future premiums will be invested, cannot be known and that the company cannot both ensure solvency and provide to the customer reasonable value.

On the other hand, surely there is a need for low priced permanent life insurance, particularly for business insurance or the sophisticated purchaser. Very often this individual does not wish to invest his company's profits in the low risk, low return portion of the premium covering the "participating" feature. He should be permitted the choice of a non-participating contract freely offered in competition with participating insurance.

I think a strong case could be made for limiting the offering of non-participating life insurance to mutual companies. The participating insurance fund, which presumably would form the bulk of the company's coverage, could afford to take a greater "risk" in the pricing of non-participating products than could the shareholders of a stock company, thus enabling a more reasonable pricing of non-participating insurance. Or if that radical approach is not acceptable there is a way of minimizing the investment risk by immunizing non-participating life insurance with single premium annuities. Properly done the interest rate for investment of future premiums can be more or less guaranteed at issue.

I don't think the answer is to eliminate non-participating life insurance. We should instead look for ways to minimize the investment risk and thereby price a product both solvency proof and with consumer value.

Robin B. Leckie

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The Professional Actuary

Sir:

This letter is to give an emphatic second to Mr. Vogel's letter in the September issue of *The Actuary.*

Never before has the "house divided" analysis been in need of review. Some of my best friends are accountants or lawyers, but I would prefer to remain part of a separate profession than to be a subset or specialty of either of the above. This I feel will only be possible if we quit squabbling over whose exams are harder and present a unified front to the public, government, and other professions. The need of people to go on making their living will always be heard more clearly than the pride of an elitist group, justified or not. As far as real needs to protect the standards, the economics of supply and demand will have everyone agreeing on tight standards for future entrants to the group. In the meantime, we will probably suffer through a few incidents of irresponsible action.

John Wade

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Trust Funds

(*Continued from page 1*)

outgo over income is increasing and in calendar year 1977 it is estimated that outgo will exceed income by $5.6 billion.

Projections into future years are made on three sets of assumptions — an Optimistic, an Intermediate, and a Pessimistic set, Alternatives I, II, and III respectively. Under the optimistic set of assumptions the assets of the OASI Trust Fund are expected to be exhausted by 1984 and the DI Trust Fund by 1979 unless legislation is enacted to provide additional financing.

The report displays medium-range (25 year) cost estimates and long range (75 year) cost estimates in terms of estimated percentages of taxable payroll on the basis of the present laws. These estimates are compared with taxes as a percent of taxable payroll to demonstrate the estimated shortfall of projected income compared with taxes.

These percentages show considerable changes over the period 1977 to 2050, as the following abbreviated table shows.

Alternative II

Year	*Expenditures*	*Tax Rate*	*Excess Expenditures Over Taxes*
1977	10.91%	9.90%	1.01%
2050	26.93	11.90	15.03

These Excess Percentages vary widely with the Alternative Assumptions. The following figures are for the 75 year average 1977-2051.

Alternative I	3.88%
Alternative II	8.20
Alternative III	16.09

An interesting feature of the report is the presentation of cost estimates based on "a more stable system." Apparently, it is expected that Congress will, sometime soon, agree that benefit levels projected under the present law are too high and will take steps to reduce them. Accordingly, "estimates of income and outgo . . . are presented in the report for a 'modified theoretical' system which would maintain through time, the relationship between average awarded benefits and average earnings at the beginning of 1979." Even under the "modified theoretical" approach the projected outlays of the trust funds are estimated to exceed tax income in every calendar year for the next 75 years. However, the average annual excess (over 75 years) of expenditures over taxes is reduced from 8.20% of taxable payroll to 3.74% of taxable payroll by use of the "modified theoretical" approach.

A significant portion of the report (Appendix A) is devoted to a discussion of the basic assumptions used in preparing the long range cost estimates. Among the factors for the assumptions are Wages, CPI, Annual Unemployment Rate, Fertility Rates, in addition to Mortality and Morbidity.

Federal Hospital Insurance Trust Fund

This report concludes that "The present financing schedule for the hospital insurance program is not adequate to provide for the expenditures anticipated over the entire 25-year valuation period, if the assumptions underlying the estimates prove to be realistic." The estimated average annual deficit for the 25-year period is 1.16% of taxable payroll under the "intermediate assumptions" (Alternative II).

Alternative II assumes that hospital costs during the next 5 years will increase approximately 15% each year grading to a 10% rate of increase after 10 years.

It is noted in the report that this fund is in danger only in the long run. The current financing schedule of the program over the next 5 years is adequate to provide for anticipated program expenditures.

Supplementary Medical Insurance

SMI is essentially financed on a pay-as-you-go basis. It is intended to be self-supporting from premiums paid by participants and from general revenue contributions. The financing of the SMI program has been established through June 30, 1978 by the promulgation of standard monthly premium rates for participants ($7.20/month for year ending 6-30-77 and $7.70/month for year ending 6-30-78), and adequate actuarial rates which determine the amount to be contributed from general revenue for each enrollee. □

Note: A more extensive review of the Reports will appear in the Transactions.

To Be Continued

(*Continued from page 2*)

his work in the study of immunization and term structure concepts as they may be applied to actuarial science. C. L. Trowbridge reviewed the initial efforts of the Society Committee recently formed to investigate inconsistencies in valuation assumptions. Robert Link examined a model which has been used for devising investment strategy for a life insurance company. Ronald Karp took up another model approach for evaluation of investment strategy. Irwin Vanderhoof commented on the extension of investment risk principles to other actuarial planning situations. Finally, Richard Ziock discussed a "modified random-walk" model for prediction of investment results.

Special honor was paid during the conference to the memory of David Halmstad, who in years past contributed so much of his unique personal talents and energies to the annual research conference, as well as to many other endeavors of the Research Committee. Banquet speakers Russ Collins and Courtland Smith spoke of the contribution of Halmstad, and of his hopes for the future of actuarial research.

David Halmstad and his early colleagues of the Committee on Research initiated the annual research conference eleven years ago as a means of encouraging research on particular topics and of giving researchers a forum to discuss recent work. The New York Conference was very much in this spirit, as evidenced by the lively questioning that speakers received from the audience. The Committee on Research is at this time considering possible topics and sites for the 1978 conference. Any Society members wishing to make suggestions should contact Frank Irish. □

Actuarial Club Meetings

Nov. 15, Chicago Actuarial Club
Nov. 16, Nebraska Actuaries Club
Nov. 16, Seattle Actuarial Club
Nov. 17, Baltimore Actuaries Club
Nov. 17, Actuarial Club of Indianapolis
Nov. 17, Actuaries' Club of the Southwest
Dec. 1, Boston Actuaries' Club
Dec. 6, Twin Cities Actuarial Club
Dec. 8, Baltimore Actuaries Club
Dec. 20, Chicago Actuarial Club
Dec. 21, Seattle Actuarial Club

An Unloaded Question?

(*Continued from page 1*)

a common condition for many companies. Therefore, a strict interpretation of the decision might require filing amended returns from 1968 forward to establish precise historical earnings rates. For a company that has been taxed only on gain from operations and not taxable investment income, using these historically established rates as approximations would seem to be sufficient.

Since the current earnings rate is investment yield divided by mean assets, a reduction in assets increases the current earnings rate. The adjusted reserves rate is the lesser of, the current earnings rate or the average earnings rate for the current year and the preceeding four years. An increase in the adjusted reserves rate will increase the policy and other contract liability requirements when it is multiplied by the adjusted life insurance reserves. This will lead to an increased policyholders' share for computing taxable investment income, which should lead to a lower company share and therefore a lower taxable investment income. Right?

Not always.

"Why?" you may ask. Because the Life Insurance Company Tax Act of 1959 is a very complicated law. The result stipulated above will occur if investment yield does not change. It is possible for investment yield to also change as a result of the decrease in assets. This is because the limit on the deduction for investment expenses in computing taxable investment income may increase or decrease when assets decrease, depending on the mix of mortgage assets with and without service fees. If the limit increases, and is applicable, investment yield decreases and lowers the current earnings rate, which is the opposite of what was previously described. If the limit decreases, and is applicable, investment yield and the current earnings rate increase. For some companies, the change in the investment expense limit will have no effect. When the investment expense limit does apply, in whichever direction, it will change investment yield, and since policyholders' share is policy and other contract liability requirements divided by investment yield, policyholders' share will also change. It is difficult to say which of these effects will predominate without running the numbers through the return.

An insurer who is affected by the investment expense limitation may actually increase taxable investment income by filing amended returns. This is of no consequence to the insurer who is taxed only on gain from operations. If, however, investment yield has changed as a result of the investment expense limitation changing, this would also change the policyholders' share and company's share calculated for determining gain from operations in the same direction as both shares for determining taxable investment income. Also, a decrease in the investment yield will change the small business deduction for companies whose investment yield is less than $250,000, since the small business deduction is the lesser of 10% of investment yield or $250,000. This, in turn, will reduce the amounts accumulated in the shareholder's surplus account.

The Supreme Court decision also stipulated that loading on deferred and uncollected premiums could not be included in gross premium income in computing the company's tax liability. The amount that a company previously included and now must exclude is the increase in loading on deferred and uncollected premiums. This change is an income item used in determining the company's gain from operations. One might expect this deduction of the increase in loading to have an exact dollar for dollar effect on the gain or loss, reducing the gain or increasing the loss to be carried forward. This is not always the case.

First, if there was a change in investment yield, as described above, there will be a change in the company's share for computation of gain from operations, and consequently a change in other items of investment yield, the small business deduction, and the company's share of various investment income items, as well as the remainder of investment expense deductions over the Schedule H limit. Second, the change in gross premiums changes the subtotal of income which is used in Schedule E-2, Part I to determine the limitation on special deductions which may therefore also change. This may also affect amounts accumulated in the shareholders' surplus account. Again, the surest way to determine what actually will happen is to make the adjustment and all resultant changes in the tax return.

Note that a company in any given year may have an increase in loading or a decrease in loading. Therefore, the gain from operations may increase or decrease accordingly. If a company has a decrease in loading as measured from the beginning of the tax year for which it is filing amended returns to the end of 1976, gain from operations may be increased during the critical period, increasing tax liability or reducing operations loss deductions. A line by line recalculation of the tax returns will determine whether the company gains or loses by amending its returns.

I have described some of the implications of a "simple" change in tax returns emanating from a Supreme Court decision generally welcomed by the life insurance industry. In the process, we have found that where the Life Insurance Company Tax Act of 1959 is concerned, even "simple" adjustments can become quite complex, expected gains may be illusory, and recomputation of tax returns during the critical period is the best way to form definitive conclusions about the effect on a particular company. □

REPORT ON RISK CLASSIFICATION

Through an oversight, this Report as issued did not contain the usual list of members of the Task Force. They are as follows:

Michael J. Mahoney, *Chairman.*

John P. Clark, William S. Gillam, Barbara J. Lautzenheiser, W. James MacGinnitie, Richard M. Stenson, Ethel C. Rubin.

In addition, Daniel F. Case and Stephen G. Kellison attended the Committee Meetings as observers.

Investment Instruments

(*Continued from page* 1)

A Recommendation

One recommendation for a company heavily invested in tax-exempts is to not invest further in that class of instruments. Consistent with this recommendation is a corollary recommendation that the company judiciously divest itself of most of its tax-exempt holdings.

This recommendation is based upon my belief that a major economic depression will occur within the next ten years, possibly sooner.

Impact of Major Depression on Tax-exempt Instruments As a Class

The market for tax-exempt instruments is very narrow and is becoming narrower with each recession. For example, a primary holder of tax-exempts has been the banking industry. However, with each new recession the banking industry increasingly finds itself in an illiquid position. To alleviate these liquidity problems, the banking industry has been, among other activities, selling its holdings of tax-exempts.

During a major depression, the taxing base from which income is derived by issuers of tax-exempts to service their debts would shrink considerably. During such times it would be difficult initially for such issuers to cut back on their public services. Instead, they would likely first default on the interest payments on their debts and then default on the repayment of the debt principal as the instruments would mature.

Because all issuers of tax-exempt instruments would have reduced tax bases during a depression, investments made in tax-exempts as a class would not be a good haven for any investable assets. As a class of investments, tax-exempts probably offer as little security as conventional mortgages during a depression.

A valuable lesson can be learned from the recent New York City bond debacle. Although New York City has proven to be politically irresponsible, it was not this irresponsibility per se which caused the debacle. The debacle was caused by the acute *attrition* in the city's tax base which resulted from the economic slowdown.

Contrast the likely impact of a major depression on the security of investments in tax-exempts with its likely impact on the security of investments in "quality" corporate bonds. By "quality" corporate bonds is meant bonds of corporations (1) which produce meaningful and necessary products or services, (2) which have relatively unleveraged capital, and (3) which have good positions of liquidity.

Short of a complete collapse of the economy "quality" corporate bonds offer plenty of security to investors. First, in any economic slowdown they do not immediately experience a liquidity problem. Second, when their net income decreases they are able to forego dividend payments in order to continue servicing their debts. Third, they have surpluses which can be used as a source of funds, if necessary. Finally, they can sell off assets to service their debts if that should become necessary.

The Coming Depression

An examination of the last 40 years discloses that over that period the government for seemingly "valid" reasons has increased the amount of its deficit spending, with the yearly level of such deficit spending reaching many billions of dollars today. In order to accommodate the financing of that deficit spending the Federal Reserve Board has had to monetize much of it, that is to say the Federal Reserve Board has had to increase the money supply over and above the increase in real value of goods and services produced. Each such increase in the money supply has resulted in stimulation of the economy through the creation of "easy" credit by the banks which have had to handle the government's deposits.

As the money supply/credit cycle has continually repeated itself, the economy has become more and more credit dependent, requiring with each cycle more stimulus through greater deficit spending with its consequent further expansion of credit. Thus, the economy is feeding on itself, and the economic system as we have known it must self-destruct since, as common sense tells us, there is a credit level toward which we are accelerating and which cannot be exceeded. When that level is reached, a major depression will be upon us. (An alternative consequence that government becomes fascist and totalitarian is not explored here). No one knows at what point the ultimate credit level will be reached. What that amount of credit is which represents the breaking point should not concern us; all that we need be aware of is that inevitably the breaking point will be reached.

Some monetarists are suggesting th[illegible] rather than depression the economy will experience runaway inflation similar to that in Brazil. Under such a situation, investments in "quality" corporate bonds still would offer initially greater security than investments in tax-exempt bonds.

Impact of Recommendation on Net Income

If any insurer accepts the recommendation and if the considerations which have precipitated the recommendation never materialize, the loss of net income after tax each year will depend on the aggregate spread between the after-tax yields of alternative investment instruments. On $10,000,000 such foregone net income might average between $25,000 and $37,500, and would decrease over time as interest rates generally would come down.

If the recommendation is accepted and if the considerations upon which it has been based materialize, the *relative preservation* of net income resulting from preservation of investment return and investment principal could run in millions of dollars. The temporary foregoing of greater investment yield can be considered an asset charge for insurance against investment default. Depending on an insurer's tax situation, this charge on an after-tax basis likely would fall between ¼ and ½ of 1% of related assets.

Timing

Some may feel that the underpinning of the recommendation is proper but that the timing is wrong. This is a common retort of some investment people in response to recommendations made by "outsiders." The effect of such a retort, and its intent, is usually to eliminate any real consideration of any such recommendation.

For the economic situation at hand there can never be a good time for implementing such a recommendation. If implementation of the recommendation is delayed until the need for such is "more obvious," then it may be too late. Since it cannot be known in advai[illegible] exactly when the need for implementation will be "more obvious" but can only be known that it will become "more obvious," an insurer can protect itself now by implementing the recommendation. □