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DEATHS

L. Roy Baker	ASA 1930
Wray M. Bell	FSA 1931
Lloyd J. Brown	FSA 1941
Helen L. Clark	FSA 1927
John W. Coons	FSA 1957
Simon P. Dompierre	FSA 1971
Kenneth J. Duffy	FSA 1964
Lenard E. Goodfarb	FSA 1955
Walter J. Mays	ASA 1951
Fergus J. McDiarmid	FSA 1932
Edward Ruse	FSA 1937
Walter I. Wells	ASA 1932
David H. Young, Jr.	FSA 1960

It is the normal practice of *The Actuary* to list the names of members whose deaths have been reported to us since the previous issue; but we leave obituaries to the *Transactions,* and seldom comment beyond the simple listing.

We make an exception for this issue by noting that *five* of the members whose names appear above have been FSAs or ASAs for more than 50 years, and that Helen Clark, when she died at age 91, was the oldest female fellow. ☐

SYMPOSIUM PLANNED FOR VALUATION ACTUARY

The 1986 Symposium for the Valuation Actuary will be held on Oct. 23-24 at the Shoreham Hotel in Washington, D.C.

This year's symposium is jointly sponsored by the American Academy of Actuaries, the Canadian Institute of Actuaries, the Conference of Actuaries in Public Practice, and the Society of Actuaries.

The symposium will feature topics of interest to valuation actuaries in both the United States and Canada. The first day will be devoted to a general review of the current environment in which valuation actuaries operate. The second day, split into U.S. and Canadian sessions, will provide specific "how-to" demonstrations that will give the valuation actuary the tools to accomplish his task.

A brochure on the symposium has been mailed to all members. Additional information can be obtained by contacting the Continuing Education Department, Society of Actuaries. ☐

THE PROBLEM WITH OPTIONS

By David S. Williams

As part of the rapidly growing array of financial instruments, options of various sorts have been coming into use as portfolio management tools. This article does not refer to these, but rather to the implicit options that insurance companies have been dealing with for some years. The following table presents some of the more familiar types of such options:

The Options Balance Sheet

	Assets	**Liabilities**
Held By Insurer	Retractable Bonds Extendable Bonds Bonds with Warrants Floating Rate Preferreds at Higher-Of Yields	Policy Dividends
Granted By Insurer	Issuer Calls Sinking Fund Double-Up Option Mortgage Prepayments Forward Commitments (Implicit Put Options)	Policy Loans Cash Value Surrenders SPDA Cash-In Higher-Of Guarantees GIC Period Rate G'tees

The upper left-hand box features the kinds of investments that insurance companies can make, with associated options which they can exercise. Companies are likely to hold relatively few of them, since they are for the most part fairly recent innovations. Much more common are the options granted by the insurance company to the debtor, seen in the lower left-hand box.

The right-hand boxes contain options associated with insurance product liabilities, the last three in the lower box being found in conjunction with some of the newer products offered in the market.

This sheet is not well balanced, being weighted heavily in favor of options granted by the insurance company, on both the asset and the liability sides. Thus the company could find itself in a squeeze should interest rates move sharply in either direction. Since the value of options increases with the volatility of the financial environment (and the volatility has increased), insurers should be fully aware of the financial risks they are incurring as a result.

Coming to grips with the problem of options involves several approaches:

1. Improved asset-liability matching, wherein the options associated with both assets and liabilities are clearly identified and taken into account in cash flow matching, simulation analyses using different scenarios and immunization programs.
2. Careful evaluation and pricing of options included in various product designs, which involves estimating when and in what volume such options might be exercised.
3. Development of new ways to share risks with policyholders and issuers — e.g., granting fewer or more limited options, negotiating risk-limiting features with issuers.

The themes mentioned above are discussed in an article by Alfred Weinberger, vice-president of Salomon Brothers, Inc. and formerly with Sun Life Assurance Company of Canada. The article can be found in a book entitled "The Emerging Financial Industry", edited by Arnold Sametz, published in 1984 by D.C. Heath and

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BOOK REVIEW

Employee Benefits by Burton T. Beam, Jr. and John J. McFadden, both of The American College, Bryn Mawr, Pa. Published in 1985 by Richard D. Irwin, Inc., 486 pages plus bibliography and index.

Reviewed by Willis B. Howard, Jr.

This book has one introductory chapter, then two chapters which cover the mechanics of OASDHI, Unemployment Insurance, Workers' Compensation and other government programs. The next eleven chapters describe the mechanics of group insurance. Then follow ten chapters on Qualified Retirement Plans, two chapters on all other employee benefits from executive compensation to free parking, and a final chapter on Employee Benefit Planning. The emphasis is on the means of providing employee benefits, rather than a philosophy of why employee beneifts are provided.

The treatment is thorough, with an orderly, logical, straightforward style. Each chapter gives an overview, then a broad outline, then the details of the outline. One senses that much of the information comes from secondary sources rather than from the authors' experience in the field. For example, on page 216 under the discussion of "Premium-Delay Arrangements", the authors state, "the insurance company still has a statutory obligation to maintain the claim reserve, and therefore, it must use assets other than the employer's premiums for this purpose. In most cases these assets come from the insurance company's surplus". One experienced in the language of life insurance accounting would state the concept some other way. What the authors mean is that since liabilities remain constant and assets decline, surplus is reduced.

The style is refreshingly free of insurance company jargon. One need not be steeped in insurance lingo to understand any of the book. However, one is startled to read the phrase "insurer's financial experts" used to describe what those of us in the business call "actuaries".

There are implicit philosophical assumptions behind some of the authors' conclusions. For example, in discussing the question, "Should the employer have a qualified plan?", the authors (probably unconsciously) introduce a socialist bias in referring to the effect on a company's income taxes. "In other words, a qualified plan represents a form of compensation, part of which is *paid by the federal government* rather than by the employer". (emphasis added) (page 265).

In discussing separate accounts, the authors state, "Separate accounts funding was developed to avoid co-mingling pension assets with all of the general assets of the insurance company, since an insurance company's general assets have traditionally been invested in long term, low return investment vehicles" (page 331). This sentence indicates less understanding of the investment process than the authors probably have; I know of no insurance company whose investment philosophy dictates low return investment vehicles.

In discussing pension plan funding, the authors make the usual layman's definition of an annuity, "The annuity purchase rate is based on the plan's retirement age, the life expectancy of the retiree, and the assumed investment return in the post-retirement period" (page 335). One would expect better things from professionals in the employee benefit field. Even if they are not actuaries themselves, they could have had sections such as this edited by an actuary. It is, as all actuaries have had drummed into their heads, not life expectancy that determines the annuity purchase rate, but mortality rates.

Relatively minor lapses such as this one prevent this book from being a more valuable source book for actuarial students. It may be, nevertheless, a useful reference book.

In commenting on Wellness Programs the authors state, "Recent studies have shown that the costs of establishing and maintaining many of these programs are more than offset by the lower amounts paid for medical expense, disability, and death benefits" (page 453). The authors do not cite the programs or the companies in which these programs have offset the costs of medical expenses. One is skeptical of such thinly supported broad general conclusions.

The final chapter, on employee benefit planning, offers sound advice: "Too often the proper design of an employee benefit plan is viewed as a one-time decision rather than as an evolving process. As times and organizations change, employers' answer to the questions raised in this chapter may also have to change. For this reason, these issues must be frequently restudied to determine whether a group benefit plan is continuing to meet its desired purpose" (page 461).

The authors review old and new ways to determine what types of benefits should be provided: "...the growing consensus seems to be that the traditional methods of determining the types and levels of benefits to offer have lost much of their effectiveness. These include basing benefits on the following factors: the employer's perception of the employees' needs; what competitors are doing; tax laws and regulations....

"In the last few years employers have increasingly taken a marketing research approach to employee benefit planning. The employees' preferences for benefits are determined similar to the way that consumers' demand for products are determined.

"Marketing research techniques must be used with caution. They can have a negative effect on employee morale unless the employer is committed to using their results in benefit decision making. Therefore this approach should not be undertaken unless the employer intends to base expenditures for benefits on satisfying what employees perceive as their needs. In addition, employees must be made aware that changes in an overall benefit program will be subject

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The Problem with Options *(Continued from page 4)*

Company. It discusses many topics of interest to insurance companies, in particular the marketing of financial products and services. The life industry has traditionally been distributor-driven rather than consumer-driven, but the new players in the game will not be bound by the old rules. They will attract customers simply by knowing them better than the old players and by being more responsive to their needs. The winners will be those who understand their markets and consumers best, and who deliver good value on the basis of that understanding. □