The Actuary

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The Actuary
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NEW RISK THEORY STUDY NOTE SIGNALS CHANGE

by Alastair G. Longley-Cook

In a new contingencies textbook being written by five distinguished actuaries, there are five chapters dealing almost exclusively with Risk Theory. As these chapters are self-contained, the E & E Committee is circulating these to May 1982 Part 5 students as a study note. Others interested may order them by sending $6.00 to the Society Office.

Introduction of this new material marks something of a milestone in our profession's progress. Until now Risk Theory has been treated as a separate subject, useful perhaps for pricing reinsurance, but not part of the mainstream of actuarial work. The new textbook firmly embraces the study of variations from expected values as being at the heart of actuarial science; consideration of deviations in experience, traditionally the domain of Risk Theory, has become an integral part of the study of contingencies.

The E & E Committee realizes that initially such a fundamental change will not be unanimously applauded. Some may find the terminology and concepts unfamiliar; others may consider this approach academic, "not useful to the practicing actuary." Hence the Committee is trying to introduce this new approach in a way that will emphasize its true usefulness. A carefully chosen group of fourteen practicing actuaries has worked with the textbook authors to ensure that the material will be readily assimilated by actuaries not closely connected to the academic world, and that mathematical sophistication no greater than presently covered on Parts 1 and 2 is required.

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SPECIFICATIONS FOR 1980 CSO MONETARY VALUES

Recognizing that actuaries' prevailing need is for programming aid rather than for volumes of derived values, the Society has formed a committee to design specifications on the 1980 CSO Tables and *has no plans to publish the traditional books.*

Specifications visualized include: monetary values, reserves and cash values, interpolated select mortality factors, age last birthday and joint life functions.

Suggestions are welcome. Please send them by phone or letter to Godfrey Perrott, Chairman at his Year Book location.

HELP NEEDED WITH ONE OF THE SOCIETY'S FINEST PROJECTS

We believe that some actuaries who have neglected reading their mail will welcome a reminder on behalf of the Minority Recruiting Program.

276 U.S.A. employers of six or more actuaries were solicited by letter for a contribution of $20 per actuary on their staff. 83 replied, sending $31,415.

6,000 individual Society members were solicited through an editorial in the September issue of this newsletter. 4 replied, sending $65.

The consequence is that the response thus far is below last year, and below what the task requires.

Those who care to do something about this, please make your check payable to "SOA/CAS Minority Recruiting Program" and send it to the Society (or Casualty Society) office. Contributions are tax-deductible in the U.S.A.

E.J.M.

UNIVERSAL LIFE IN THE U.K.?

by Seamus Creedon

We who have watched from a distance the development of Universal Life perceive two key influences:

i. the need to make the form of life assurance contract more responsive to the client's changing circumstances and to volatile economic environment;

ii. pressure of competition from a wide range of savings and investment media.

These influences have also been at work in the United Kingdom, although in a different regulatory and fiscal climate.

The key elements of Universal Life design—transparent investment returns, flexible premium and benefit structure and generally lower expense loadings—are increasingly found in United Kingdom new products. Most notably, unit-linked policy types (under which policy benefits directly reflect the performance of a segregated account) have steadily increased their share of industry sales. Some recurring single premium life products and most individual pension plans are very similar to Universal Life in their structures.

An important difference here is that policyholders are allowed a partial tax deduction in respect of individual life premiums. This deduction is subject to constraints on product design—policies must be for level annual premiums and for a minimum term—which have inhibited development of Universal Life as you have it. And this favourable tax treatment may have given our industry a built-in advantage over other savings media and thus avoided pressure on expense loadings.

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AN EDITORIAL BY THE PRESIDENT

WHERE ARE THE ISSUES OF YESTERYEARS?

AS the fifteenth incoming President to have the privilege of contributing an editorial, I have sought to avoid the embarassment of inadvertent repetition by re-reading those of my predecessors from Miller to Leckie. Not surprisingly, each of those messages continues to be apposite today.

In 1967, Morton D. Miller pointed to our need for communication and to the role of this newsletter, then in its first year. That present need is at least as great; happily, *The Actuary* continues to perform its significant function.

Member involvement in Society affairs has been the voiced concern of three presidents—Milliman (1968), Lancaster (1970) and Leckie (1980). I echo them in appealing to members to volunteer for committee service, to submit papers, and to participate in discussions at our meetings and our seminars.

The actuary's role has been discussed from various viewpoints by Moorhead (1969), Myers (1971), Lew (1973), Bragg (1975), Halvorson (1977) and Barnhart (1978). Their observations remain pertinent as we enter 1982.

Bowles (1972) focussed on problems we face in dealing with the world beyond our professional boundaries. We still must be aware of how the public sees us.

Public expression of opinion by the Society and its committees was Trowbridge's theme (1974). His remarks bring to mind subsequent controversy on just what constitutes an opinion rather than a statement of fact.

Reorganization of our profession in North America was the topic chosen by Jackson (1976). The present generation looks upon reorganization as dead, or perhaps just dormant; in its stead, cooperation and coordination among the actuarial organizations become steadily stronger, specially through the Council of Presidents and various joint committees. And recognition of actuaries, stressed by Vogel (1979), surely is still basic to our profession and the Society.

So, with reorganization as the one possible exception, the subjects of fourteen years of presidential editorials are front-rank questions still. We may expect to hear more about them all in the busy year now starting.

Robert H. Hoskins

Joint Paper Wins Halmstad Prize

James C. Hickman, F.S.A. and Robert B. Miller, Ph.D. have been awarded the second David Garrick Halmstad prize for their 1979 paper, *Bayesian Bivariate Graduation and Forecasting.* Both are Professors of Business and Statistics at University of Wisconsin—Madison. The presentations were made at our Atlanta meeting in October by John A. Mereu on behalf of the awards committee.

The prize-winning paper was published in ARCH 1979.3, p.99. A revised version is to appear in the Scandinavian Actuarial Journal (1981).

The history and sponsorship of this award, and the procedure for nominating candidates for the best paper on actuarial research published in 1980, are set forth on page 1 of this newsletter's May 1980 issue.

We join in extending hearty congratulations to Profs. Hickman and Miller whose names are now added to that of Prof. Phelim P. Boyle, winner for 1978. □

New Risk Theory

(Continued from page 1)

Although historically treated in a deterministic, i.e., single-valued, way, mortality rates, interest rates and the like are, of course, variables; we have been dealing with only their expected values. The recent volatility of interest rates has brought home to us that considering expected values is not good enough; disciplined analysis of variations has become critical to responsible management of our risk-taking enterprises.

Even if interest rates had remained stable, we would still find ourselves sorely in need of the tools this new textbook will give us. Examples of practical actuarial problems that require them include: calculating risk charges, choosing margins for adverse deviation in GAAP reserves, setting retention limits, deriving experience-rating formulas, establishing surplus requirements for a company or a line of business, and justifying pricing assumptions to regulatory authorities.

Unless actuaries can deal with these problems with authority, non-actuarial specialists will fill the void. Our leadership position is at stake. □