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INFLATION AND LIFE INSURANCE

by Fergus J. McDiarmid

Ed. Note: This is the first of a series of reflections by actuaries who made observations 20 years ago on portentous questions of those times.

Back in 1958 I presented a paper, "Inflation and Life Insurance," to the Society. In it I said that fundamental changes in our society, our economy and the world, made continuing inflation likely. The long but historically exceptional period of relatively stable money values, which had lasted from the end of the Napoleonic Wars to World War I, and which had a twilight zone up to World War II, seemed to have ended. Our 1958 dollar had less than half the 1940 dollar's purchasing power. Particularly disturbing, after World War II there had been no reversal of the upward price trend such as had followed prior major conflicts.

The Prospect 20 Years Ago

All this, it seemed, had broad and serious implications for such long-term fixed-currency media as life insurance, which had grown to maturity against a background of fairly stable money values and expectations that these would continue. This was particularly so for plans whose time span between collection of premiums and payment of benefits was long; term insurance of modest duration was, of course, the exception. I suggested that as a partial hedge against inflation, new insurance and annuity policies be devised in which a substantial part of the reserves would be invested in common stocks. That was at a time when inflation rates were 1% to 2% a year; recent rates, sometimes in double-digit figures, were not then envisaged.

That paper received substantial but very mixed reviews. People engaged in

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To All Our Readers,
A Happy New Year!
The Editors

THE ACTUARIAL POLITICIAN

An Interview with W. Paul McCrossan
FSA, MP

Ed. Note: This is one of a series of articles about actuaries in public service.

Question: Paul, do you have the honor of being the first actuary ever elected as a Member of Parliament in Canada?

Answer: Yes—perhaps I may claim to be the second as well as the first. In the fall of 1978 I was elected M.P. for York-Scarborough in a by-election. Then in May 1979's general election I was reelected in that same riding.

Q. Why twice in an eight-month period, for goodness sake?

A. Hardly had I managed to get elected to fill a vacancy than the Prime Minister exercised his option to call a more than usually postponed general election, sending me back onto the hustings without much of a breathing spell.

Q. What is the York-Scarborough riding?

A. A riding is the Canadian equivalent of a congressional district in the U.S.A. York-Scarborough, in southern Ontario, happens to have the largest voting population, and perhaps the largest resident population of any Canadian riding.

Q. And your secret in getting the nod from the voters in so substantial an area?

A. There were two hurdles—first to win the nomination of my party (the Progressive Conservative) against two others, then to win the election against

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"SECTIONS AND DIVISIONS" IDEAS

More than 2,300 Fellows and Associates have given the Society's Task Force on Special Interests plenty to think about. Your answers to our mail enquiry last July were well spread across the range from "hate the idea" to "best thing you ever came up with." Many of you indicated that we hadn't given you enough information.

The Task Force was appointed by the Executive Committee, as part of its long-range planning function, to look into the professional and special needs of all our members, and the various ways in which the Society might better respond to those needs. We were also asked to determine how well-represented various groups of actuaries were, and whether or not the Society could be more responsive and flexible both in representing you currently and in meeting whatever needs might emerge in the future.

After considerable preliminary analysis, we began to consider a concept of "Sections" to meet the professional needs of those who were interested in more specific services than are currently provided. We also began considering the concept of "Divisions" as a possible approach for providing improved representation, by general specialty.

In July, we gave you a brief outline of the concepts of Sections and Divisions. We didn't ask whether you liked these ideas, mainly because they were not fully developed and, certainly, they were not adequately explained. What we wanted to find out was the degree of interest which might exist, *if* Sections or Divisions were to be set up.

We received comments from 546 of you. Those in favor of our concepts mentioned the Society's increased size, the growth of specialties, and weaknesses in services to some special interests.

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"Sections and Divisions" Ideas

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Those opposed were very concerned about "splintering" of the Society, inconsistency with reorganization efforts, increased bureaucracy, possible reduction in career mobility, loss of the "general" nature of the Society and failure to cover the needs of Canadians and members with corporate or general interests.

Would you join?

We tabulated the responses to the "willingness to join" questions by the characteristics of the respondents. For both Sections and Divisions, very little difference by characteristic was observed except where it might logically be expected—Fellows and Associates provided almost identical responses, for example, but "Life Insurance" actuaries expressed less interest in Pension Sections than did "Pension" actuaries.

Over 300 respondents expressed willingness to join each of the "actuarial functions" Sections listed, ranging from a high of 1,025 for "Individual Life Insurance" to a low of 316 for "Actuarial Testimony." The "non-functional" Sections elicited a somewhat lower positive response, with a high of 506 members expressing interest in "Stock Life Insurance Companies" and a low of 73 in "Teachers."

The first questions on the concept of Divisions were intended to find out which of several alternative "breakdowns" might be most appealing. The most popular (with 1,066 favoring) was the three-way breakdown into (1) Individual Life and Individual Health, (2) Pensions, and (3) Group Life and Group Health. Under such a breakdown, 1,010 members indicated willingness to join the "Individual" Division, 951 would join "Pensions," and 739 would join "Group."

On the question about whether Divisions should have specific representation, 44% of you favored it, 13% opposed, 38% were unsure and 5% didn't answer. By characteristic, the "Yes" response ranged from 54% for Pension Consulting actuaries to 26% for university-employed. For almost all other characteristics, the percentages were in the 40's.

If you are interested in obtaining details on these tabulations, please write to Daphne D. Bartlett.

The Task Force thanks all of you who took the time to respond. The results were valuable in framing our recommendations to the Board of Governors. At its October meeting, the Board asked us to proceed with development of the concept of Sections, while maintaining the current broad and flexible character of the Society. We will be reporting to you again on our progress.

Task Force on Special Interests

SOCIETY SEMINARS & SYMPOSIA

First half 1980

Topics for second half will appear in our next issue

When	*What*	*Where*	*Length*
Feb. - March	Pension Plan Terminations	Washington, Chicago, Denver	1 day
Feb. - March	Mergers, Acquisitions & Spinoffs	Washington, Chicago, Denver	1 day
March	*On mortality	Chicago	2 days
March	Ret. Plan Val'n & Funding	Washington, Chicago, Denver	2 days
April	Distribution of Surplus	Hartford, right after Society meeting	1½ days

*Jointly sponsored by the Association of Life Insurance Medical Directors, the Home Office Life Underwriters Association and the Society.

1979 RESEARCH CONFERENCE

by Stuart Klugman

On Sept. 6-8, 1979 a small but lively group of actuaries met at the University of Iowa for the Fourteenth Annual Actuarial Research Conference. The topic was statistical estimation; the emphasis was on robust procedures. The theme was replacement of old methods by new (or occasionally older) approaches.

Bob Hogg and Russ Lenth opened with a teaching session on robust methods. They argued that least squares should be replaced by "psis of relief" (robust loss functions due to Huber, Hampel, Andrews, et al.). That afternoon, Stuart Klugman demonstrated that mortality can be estimated more efficiently by using lives instead of amounts, even when the objective is to reflect financial loss. The day closed with Don Jones showing that even a robust generalization of moving weighted-average graduation formulas could not improve this generally poor method.

On the second day, Aaron Tenenbein (with Irwin Vanderhoof) developed generalizations of Gompertz' Law to select and ultimate tables. Don Schuette de-linearized his thinking to perform a Whittaker-Henderson graduation using minimum maximation absolute value loss for smoothness, and summed absolute values for fit. Bob Miller (with Jim Hickman) discussed bivariate Bayesian methods. They echoed Jones' and Schuette's earlier remarks that the measure used to evaluate smoothness greatly influences choice of method.

Thomas Herzog and Ed Seligman promoted analysis of contingency tables by log linear models with fit measured by an information criterion. Tom gave examples from FHA mortgage defaults while Ed looked at disability claim terminations.

On the final morning, Bill DuMouchel gave a method for modifying territorial relatives for automobile insurance by accounting for travel between territories. Finally, Bill Bailey (with Bruce Nickerson) presented an empirical Bayes approach to calculating reserves for claims unreported and claims in course of payment.

These papers will appear in ARCH. The 1980 conference is set for Penn State University; its topic will be pensions and other life income benefits. □