ACTUARIAL RESEARCH CLEARING HOUSE 1991 VOL. 1

PREFACE

The 25th Actuarial Research Conference in honor of John A. Mereu was held at the University of Western Ontario in London on August 23-25, 1990. It was sponsored by the Society of Actuaries, the Canadian Institute of Actuaries, the Casualty Actuarial Society and the Actuarial Education and Research Fund, and kindly supported by the London Life Insurance Company. As usual, the aim of the conference was to bring together practicing actuaries from the insurance industry and academics pursuing actuarial research in order to permit an informal exchange of ideas and experience.

The conference honored John Mereu, his career as an actuary, researcher and educator. John serves as an excellent example of an actuary who did not limit his interests to one area only. He has been an educator of a great many actuaries in Canada while teaching at the University of Western Ontario for over 33 years. As well, he has worked at the London Life Insurance Company and contributed greatly to the actuarial practice. His important research achievements were mentioned and referenced by several speakers at the conference. His research influences many actuaries and, to give a recent example, the problem from his paper on aggregate claims distributions for two correlated benefits given at this conference, has been widely discussed among actuarial research circles and especially at the 22nd ASTIN Colloquium in Switzerland.

The conference participants came from several North American and European academic and insurance centers. The contributed papers ranged in content, in the balance between theory and practice, in the stage of completion of the work discussed, in size, area and other characteristics. Therefore, it is not easy to summarize all that has been achieved. The conference gave platform to discussion about academic initiatives by the Society of Actuaries and the Actuarial Mathematics Faculty Forum. It also created an opportunity to exchange information about forthcoming textbooks in Actuarial Science and to review the textbook Actuarial Mathematics.

The conference papers discussed the following topics: a single pay annuity lapse study, risk theory with the gamma process, recent trends in mortality by race, fluctuations on pension contributions and fund levels, models of the reserve funds for the old age survivors and disability insurance, education loans, prescription drug use by the elderly, ownership consideration in a new legal structure of life insurance company, taxation of the real interest from short term deposits, convolution planning for computing the probability of eventual ruin, aggregate claims distributions for two correlated benefits, parametric graduation of Canadian life insurance experience, evaluation of the rollover option, marketing implications of the baby boom, methods for estimating the size of the pre-AIDS population, interest and mortality randomness in some annuities, modification of the Kimeldorf-Jones Bayesian graduation model, controversies surrounding Zillmer reserves, minimum variance unbiased estimator of the IBNR, stochastic annuities, an analysis of loss reserves in Canada, continuous credibility, non-life insurance claim incurral, accrual and reporting analysis, option bonds in discrete time with transaction costs, ruin theory and the linear model, aspects of the term structure of interest rates and the probability of ruin in an autoregressive model. There was a Risky Business computer package demonstration and two communications: 1) insurance and capital flows in the single (West) European market, and 2) actuarial science in Eastern Europe.

There were three invited lectures, one each morning: "Actuarial academics, 2nd class citizens or victims of circumstance" by Robert Brown, "North American research efforts - the organizations' perspective" by Curtis Huntington and "The world, the flesh, and the actuary" by Kenneth Stewart.

The conference well served its purpose. It has been a tradition at the Actuarial Research Conference that the majority of participants give at least one presentation. This year 40 presentations were made, some jointly written and 56 participants attended the conference. The conference contributions which were submitted in written form are published in this volume.

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