



SOCIETY OF ACTUARIES

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Product Profitability cont'd.

scenario, at an assumed 10% investment earnings rate. Profit results were measured in terms of the present value of statutory book profits per \$1,000 issued (discounted at 12%) and return on investment, where both were measured after provision for federal income taxes and target surplus. Profit results on the two products were as follows:

Product	PV of Profits	ROI
UL	\$0.58	15.1%
VUL	0.58	14.7

Based on the level interest rate scenario, profits after provision for taxes and target surplus were similar for the two products.

This concludes part one of this article. In part two, we will address global pricing issues and the impact of multiple interest rate scenario testing on profitability.

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A Half-Century of Membership

There are four members who will attain their 50-year mark as Fellows this year, the survivors of the twelve members of the class of 1938:

Rueben I. Jacobson
Ernest J. Moorhead
Richard E. O'Keefe
Harry Walker

The 50-year Associates who qualified for membership that year are:

William J. Burgar
Richard F. Deitz
William L. Nicholls
Maurice C. Polman
Henry B. Thiessen
John H. Thompson

At the end of 1987, there were 134 50-year members, 95 FSAs and 39 ASAs. The numbers have declined a bit in the past few years due mainly to the small graduating classes in the mid to late 1930s: 20 in 1935, 15 in 1936, 17 in 1937 and 12 in 1938. In 1987, the Society welcomed 252 new Fellows.

The Society congratulates the new 50-year members on their outstanding achievement.

Actuarial Program at Nankai University

by Harold G. Ingraham, Jr.

At its October 1987 meeting, the Society's Board of Governors unanimously passed a resolution approving a proposal for the Society to assist in establishing an actuarial science program at Nankai University in the People's Republic of China. The program would begin in the fall of 1988. The Board also authorized the Executive Director to supervise the reimbursement of incurred expenses for administering the program, up to a limit of \$5,000, to Dr. Kailin Tuan, Professor of the School of Business and Management at Temple University. Finally, the Board authorized staff resources for the program.

China has been experiencing an economic resurgence during the past decade, and as a part of that, the insurance business has also progressed rapidly. For example, in 1980 China's only insurance company, the People's Insurance Company of China (PICC), had 50 offices with a staff of about 500. In 1986, there were 2,600 offices and 60,000 staff. Also, according to the PICC, some 50 million Chinese families now have homeowners insurance, and 60 million have bought life insurance.

Even with this rapid progression, the insurance business in China has been sorely handicapped by a severe shortage of qualified personnel, especially in the actuarial field. While several major Chinese universities have introduced insurance programs at both the undergraduate and graduate levels, actuarial science has never been taught at the Chinese universities.

Nankai University, one of the leading comprehensive universities in China, with a strong base in liberal arts and sciences and particular strength in mathematics, wishes to establish a graduate program in actuarial science through its College of Economics. The program would have a two-fold purpose: (1) to train and provide qualified actuaries for the PICC and the government (particularly to address social insurance issues) and (2) to train qualified teachers of actuarial science for other Chinese universities.

Because there are currently no qualified actuaries working in China, the Chinese have requested assistance from the Society of Actuaries.

This request comes at an auspicious time for the Society since, for a while now, we have been cognizant of increasing our international ties with other learned actuarial bodies. One recent move in that direction was the formation in 1987 of a Committee on International Relations. This committee was specifically charged to take the lead in developing such ties and in encouraging and recognizing the international development of professional standards, not only in the E&E area but also with respect to standards of practice. This includes making our professional resources available to the extent that we can be helpful. The Nankai University program provides the Society with a singular opportunity to influence the development and strengthening of the actuarial profession in a most important country.

With this in mind, a Memorandum of Understanding to establish and define the Nankai University actuarial science program was negotiated and signed last November in Tianjin, China, by myself and Nankai University's president, En-Pang Fan. It specifically calls for the following:

- The actuarial science program will be organized and administered by the Department of Finance, Nankai University, in conjunction with Dr. Tuan.
- Twenty to 25 students will be enrolled in the actuarial program. Student selection will be based on performance on the Chinese National Unified Entrance Examinations for Graduate Students, administered in late February. These examinations test student proficiencies in English, political economics, calculus, linear algebra, probability, and statistics.
- The program will start in September 1988, with 12 to 14 courses taught

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Nankai Program cont'd.

over a three-year period. Chinese professors will teach five to seven courses, including Western economics, probability, Chinese economics, and theory and practice of Chinese insurance.

- Another seven courses will be taught by Society of Actuaries and Casualty Actuarial Society members who are currently serving as actuarial science professors in the U.S. or Canada. The courses to be taught and their sequence are:
 - Fundamentals of Risk and Insurance (September 1988 — to be taught by Kailin Tuan, Ph.D., from Temple University)
 - Theory of Interest (November 1988 — to be taught by Eric Seah, Ph.D., F.S.A., from the University of Toronto)
 - Numerical Methods (March 1989 — to be taught by Beda Chan, Ph.D., A.S.A., from the University of Toronto)
 - Life Contingencies/Actuarial Mathematics I (May 1989 — to be taught by Harry Panjer, Ph.D., F.S.A., from the University of Waterloo)
 - Life Contingencies/Actuarial Mathematics II (September 1989 — to be taught by Allan Brender, Ph.D., F.S.A., from the University of Waterloo)
- Casualty Contingencies (November 1989 — to be taught by Gerald Hartman, F.C.A.S., from Temple University)
- Survival Models and Construction of Actuarial Tables (March 1990 — to be taught by Samuel Cox, Ph.D., F.S.A., from the University of Nebraska)
- Casualty Loss Distributions (May 1990 — to be taught by Stuart Klugman, Ph.D., F.S.A., from the University of Iowa).
- Each North American actuarial professor participating in the program will spend one month in China. Three weeks will involve teaching a course (5 days a week, 3 hours a day), and the remaining week will be available for sight-seeing in China at the government's expense.
- Program requirements include that the students write graduation theses under the guidance of Chinese and North American tutors. When both the courses and the thesis are completed, a student will be awarded a Master's Degree by Nankai University.
- Nankai University will provide housing for each North American actuarial professor in a small but comfortable apartment. (I can vouch for the accommodations. I stayed in

one for three days while there.) A teaching and food allowance of about \$480 U.S. (1,800 Yuan RMB) will also be provided by the PICC.

It is worth noting that there are already 86 FSAs and ASAs by examinations in East Asia today — 35 in Hong Kong alone. In fact, there has been almost exponential expansion of the U.S. international insurance market in the past decade, particularly in the Far East. That growth, coupled with the fact that just in the past two years insurance markets have opened to U.S. companies in Taiwan and Korea, underscores even more the importance of the Society doing all it can to establish and enhance actuarial ties with our professional colleagues in other parts of the world — particularly in East Asia. We are looking forward to our association with Nankai University and the Chinese government.

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Research in Finance Acquired

The Society library has acquired *Research in Finance*, Volumes 1-6, which include studies longer than conventional journal articles, yet shorter than monographs.

Volumes 1-5 were edited by Haim Levy of the School of Business, The Hebrew University; Andrew H. Chen of the Edwin L. Cox School of Business, Southern Methodist University, edited Volume 6. Sample topics are: "Are conglomerates safer?," "Firm learning and systematic risk," "Estimating the value of risk information," "Nonlinear pricing systems in finance," "Measuring nonstationarity in the parameters of the market model," "Stochastic dominance: a review and some new evidence," and "A survey of valuation and the cost of capital."

Supplement number 1, "Management under government intervention: a view from Mount Scopus," contains the papers presented at a 1982 conference sponsored by the Graduate School of Business, University of Florida, and the Jerusalem School of Business Administration.

To borrow the volumes, please contact the librarian at the Society office.



Harold Ingraham, Jr. and the president of Nankai University, En-Pang Fan, sign the Memorandum of Understanding while Dr. Tuan looks on.