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ACTUARIES AT WORK IN OTHER LANDS: FRANCE

by Véronique Lamblé

Ed. Note: This is one of a series. Mme. Lamblé is Actuary of Eagle Star Vie. We are happy to welcome her as this newsletter's Paris Correspondent.

Although life insurance is a fairly long-standing business concern in France (since the days of King Louis XV in the 18th century), the actuarial profession remained unknown here until the end of the 19th century.

The people, generally mathematicians, who practiced in our profession, claimed to be actuaries without having received any special diploma. In 1890, some of them founded an association under the name "Institut des Actuaires Francais" (I.A.F.), which accepted as a member any person approved by that body's board of governors. This Association exists today and still operates in that way.

In 1930, a decree permitted creation of a specific school for training actuaries in a university framework; that is the "Institut des Sciences Financieres et d'Assurance" (I.S.F.A.). The earliest students of that organization formed the "I.S.F.A. Actuaries Association" in 1933. Each of these Associations now has nearly 400 members.

Activities of French Actuaries

Most I.A.F. members are in the insurance business, especially life insurance and reinsurance, but the activities of I.S.F.A. members are more diversified, particularly since the 1960s. Indeed, a significant breakthrough has been made into non-life insurance, and also into finance, i.e., financial departments of banks and brokers' offices. It can be said that the French bond market is now in the hands of I.S.F.A. actuaries.

(Continued on page 8)

IS UNIVERSAL LIFE MANAGEABLE?

by Roland A. Dieter

Universal Life's policy structure confers upon policyowners the ability to see all transactions affecting policy values while providing themselves with an insurance benefit. Companies aiming for profitable operation will have to face some large questions.

Suppose, for example, that in 1983 you sold a UL policy to a rising professional aged 30 and in excellent health. Assume there's no market-value penalty clause in your policy; it's a back-end loaded product so that acquisition expenses can only be recovered out of interest and mortality loadings. What lies ahead?

Conditions Foreseeable By 1998

1. As the years go by, the UL product presence and policyholder access to computer terminals will become more and more commonplace.
2. When your policyholder is in the mid-40's, the penalty, if any, on transferring accumulated values elsewhere will be trivial.
3. Life and investment vehicles then available will still be transaction-oriented; back-end loaded UL, no-load deferred annuities and money market funds won't have disappeared.
4. Long term yields generally will be higher than short term, i.e., yield curves will still be positive. Competitive pressures will have caused your company to invest heavily in securities maturing beyond the end of your surrender charge period, passing through to the policyholder the total yield reduced only for acquisition cost recovery and profit. No margin for the C-3 risk will have been taken.

(Readers may pause here to consider what commercial banks do on their no-load product—passbook savings. The

(Continued on page 8)

RETIREMENT COMMUNITIES

Howard E. Winklevoss and Alwyn V. Powell, *Continuing Care Retirement Communities: An Empirical, Financial and Legal Analysis*, 1984, pp. 347, Richard D. Irwin, Inc., Homewood, IL, $23.00.

Reviewed by: David L. Hewitt

Here is a pioneering actuarial, financial and legislative analysis of *continuing care retirement communities* (also known as life care communities). Such communities provide lifetime housing and health care to older people. Several hundred exist in the United States, and their number is expected to grow substantially in the coming years. They offer a stimulating and secure environment, with independence from one's children, for those who may survive to very old ages.

While the CCRC idea is not new, it is evolving and the major growth has occurred in the last twenty-or-so years. Despite the actuarial nature of the lifetime promise, these communities have made little use of actuarial techniques, and few actuaries have expressed a scientific interest in their operations.

Winklevoss and Powell challenge actuaries to *start* thinking in this new field and CCRC sponsors and accountants to *clarify* their thinking. With assistance from attorney David Cohen, they also focus on the delicate balance of the legislative need to set standards but not stultify the existence of these useful institutions.

The actuarial issue is to devise an appropriate fee structure. This must make the best use of our knowledge, anticipate change, and offer a realistic picture to the consumer. Because the promise is of services, rather than dollars, and is extended over an indefinite future lifetime, inflation is an important part of the picture. Further-

(Continued on page 6)

High Drama

(Continued from page 5)

ing up Homans. The time is three years later.

The New York Spectator in July 1873 carried an interview with Winston: "What were the causes of Mr. (Actuary) Homans' retirement from the Mutual Life?".

"In brief, unfaithfulness, incompetency, obstinacy, unpracticability and insubordination, in my opinion, were the reasons why the board rid themselves of him."

Winston lays the whole thing to "a mistake which he (Homans) made in reporting the amount of divisible surplus to the board . . . Mr. Homans probably forgot the unearned margins in premium accruing from that day (December 31, 1869) to the respective anniversaries of the policies . . . Mr. Homans at that time either did not comprehend or was afraid to admit the nature of his mistake . . . his first error was increased by a disingenuous attempt to cover it up; and the committee, unable to follow the tortuous windings of his elaborate attempts at mystification, were compelled to take that course (i.e. the 80% increase) . . . Mr. Homans' mistake was subsequently rectified . . . No expense to the company was involved other than that of the labor incurred. For that expense the company has probably been fully compensated by the reduced cost of the actuary's department since Mr. Homans left."

Mr. Homans struck back in the New York Herald that same month:

". . . the facts are these:

> "In November 1869, I was the auditor of the Mutual Life and Mr. Winston was the President. He brought to me for audit the official quarterly statement of receipts and payments, prepared under his direction by the bookkeeper, in such a manner that . . . certain items had been improperly withheld in the final payment of death-claims . . . the books of the company having been already prepared, under his order, with a view to deprive such parties of said amounts due to them.
>
> ". . . I therefore declined auditing the statement beyond certifying the same was 'in accordance with the entries upon the books of the company'. This certificate he passionately and violently erased, with the threat that if I did not audit the statement in the usual manner, he would find somebody else for actuary who would . . . " [Mr. Winston was good as his word: Homans' replacement was Professor Bartlett!].

After recounting the history of his "mistake", he states that Winston "was responsible for the blunder, as he well knows. Mr. Winston never would have made this charge against me except under the excitement of feeling growing out of a circumstance beyond my control—viz., that I lately gave testimony, under the compulsory process of subpoena . . . which resulted in his conviction of malfeasance in office, of the unwarranted use of trust funds by him, and fraudulent attempts at concealment of his conduct by false and altered entries in the books of the company."

Epilogue

Winston went to jail for cooking the books. Homans did actuarial consulting for a while, then formed his own life company; nine years after his election as Society President he died suddenly, running for a trolley, just before he would have headed the U.S. delegation to the Second International Congress of Actuaries. Wright and Bartlett jousted for years over algebra and surrender charges. Fackler deliberately postponed launching the Actuarial Society till Wright had died and Bartlett had retired, this probably with Homans' concurrence. In 1909 Fackler said (T.A. S.A. XI, 12):

> "(W)e could hardly form a society without including them, and possibly would have to give some of them important positions, so rather than have an association which would not be a proper exponent of the actuarial profession we preferred to have nothing at all."

Let's give Wright the last word. He says of his bouts with Bartlett over surrender values:

> "Altogether the most painful incident of this conflict is to be obliged to say what he (Wright) has of some of the life insurance studies of his amicable friend, the West Point Professor. His mathematical capacity nobody questions. But even a war-horse might not know how to work a bark-mill till he had tried it."

DEATHS

Robert H. Armstrong, F.S.A. 1943

Frederick J. Cunningham, F.S.A. 1930

Ralph J. Hasbrouck, F.S.A. 1937

John A. Oates, F.S.A. 1950

Charles W. Southern, F.S.A. 1944

Retirement Communities

(Continued from page 1)

more, not even the services are fixed, but are likely to change with medical and social developments. Other variables are mortality and life expectancy, morbidity, and rates of investment return.

An important question is the degree to which fees should be calculated individually or pooled among groups of residents. A related issue is the division of fees between fixed entry fees and variable monthly fees. Monthly fees must be variable because of the flexible dollar promise. For this reason, CCRCs are usually operated by non-profit organizations, in whom the residents must place great trust.

The authors illustrate the full actuarial workings of a CCRC. They show the trade-off between entry fees and monthly fees on any given set of assumptions. They provide sensitivity analyses, to indicate the effect of various assumption changes. They illustrate the use of stochastic methods to predict the likely range of experience variations under a given set of assumptions.

They focus on the actuarial fact that occupancy of a living unit by two people for as long as either shall live will on the average tie it up for a substantially longer time than occupancy by one person—a relationship not fully measured in most CCRC planning. They discuss the issues in differentiating fees by age, sex and double-versus-single occupancy. They point out that a part of fees covers the square feet of real estate occupied by the resident, and a part covers per capita needs.

They illustrate some of the issues and costs involved in promising the refund of entry fees upon death after long residence. Providing such refunds adds to the costs of residency and reduces the pooling of risks.

I recommend this useful book, but would add that it does not tell the whole story.

It postulates a condition of maturity in CCRCs, where the number of health care beds needed for a given number of independent living units will stabilize—after, say, fifteen years. But it does not mention that other scenarios can produce conditions under which the need for health care beds may grow in-

(Continued on page 7)

Retirement Communities

(Continued from page 6)

definitely. Also, while it differentiates between levels of health care it neglects to define them.

It takes a rigid view of how monthly fees and the amortization of entry fees may be combined. It suggests that the growth in monthly fees can be restricted to the community's internal rate of inflation. Such an idea will prove impossible if inflation exceeds the assumed rate (since the monthly fee adjustment will also have to make up for the part of costs provided by entry fees).

It recommends that an existing community seeking to correct for past fiscal shortcomings should spread the correction over five years or less (rather than over the remaining lives of the residents).

It does not distinguish between existing CCRSs and new ones as to health care reserves. (An existing community which has *failed* to build up health care reserves is allowing the younger residents to pay for the added health care of older residents. An intergenerational transfer has been established. To correct this through current fees would place a double burden on those providing the correction: paying for the preceding generation and also building needed reserves for themselves. A correction may not be practical until a time when expenses are falling, or when bequests or other outside sources of revenue are available.)

It concludes that replacement cost, rather than historical cost, should be the basis of asset depreciation for ratesetting. The practical result would be to charge current residents for future facilities.

It invites unnecessary conceptual and accounting complications in proposing the use of total actuarial valuations for CCRCs. A more practical approach would be to extract the parts which *require* actuarial projection. These are the amortization of entry fees and the building up of health care reserves. If entry fees are appropriately taken into income during the lifetimes of the residents, and if health care reserves are appropriately built up during younger years of residency, these two actuarial adjustments can be superimposed on a rental approach.

The authors undertook a mammoth task in doing this study, and completed it in a relatively short time. They point out that more exploration is needed. Meantime, they have produced a valuable text on an important new application of actuarial science.

(This review is adapted from material prepared by me for the *CLU Journal.)* □

REPORT OF E. & E. COMMITTEE'S REINSURANCE TASK FORCE

by Melville J. Young,
Task Force Chairman

After two years' work on revising and broadening the Society's syllabus material on reinsurance, this Task Force has submitted the fruits of our labor to the E. & E. Committee.

We have gone beyond our commission by assembling a group of papers which can serve as reference material for reinsurance practitioners as well as exam study notes.

Looking to the future, the Education Committee of the Society's Reinsurance Section, chaired by Denis W. Loring, has undertaken to keep this material current and to add to it as needed. Mr. Loring would welcome word, at his Yearbook location, from anybody who'd like to assist in this endeavor or to suggest articles for inclusion.

Those interested may now obtain from the Society office copies of papers in existence, as follows:

Reinsurance Pricing (a Part 10 Study Note)	$3.50
Introduction to Reinsurance (a Part 6 Study Note)	3.50
Reinsurance Contracts (a Part 9 Study Note)	4.50
Underwriting & Reinsurance (a Part 9 Study Note)	3.50
Statutory Accounting for Individual Life Reinsurance Assumed and Ceded	3.50

Note that all but one of these are Study Notes which some readers may already have. Remember to send checks in U.S. funds.

The Task Force effort was immense, and the result worthy of that effort, thanks to the contributors' talent and dedication to our profession's needs. □

ACTUARIES AND ASTROLOGERS

by Alistair Neill,
Edinburgh Correspondent

Rather unsatisfying publicity was recently given our profession in the UK by a law report in the press, headed "Actuary's View Little More Reliable Than Astrologer's".

The case concerned assessment of damages for partial loss of pension rights. The employee's lawyer had tried to persuade the judges that allowance should be made for an estimate of future inflation based on a report by an actuary. The judges rejected his contention, and one of them commented:

> "As a method of providing a reliable guide to individual behaviour patterns or to future economic and political events, the predictions of an actuary could be only a little more likely to be accurate (and would almost certainly be less entertaining) than those of an astrologer." □

UNRIDDLING

A faithful contributor, David H. Raymond, has suggested a two-pronged contest as follows:

1. Readers be invited to send us examples of notably convoluted wording taken from anywhere in the Society's syllabus. Mr. Raymond submits a nomination found on page 126 of the Part 8 text, "Investment Activities of Life Insurance Companies":

   > "In a stochastic world, it is impossible to determine ex ante which sequence of portfolio choices will realize the highest terminal value ex post."

2. The second part will be submissions, by the reader sending us the original wording or by anybody else, of entries for the clearest and breifest restatements thereof.

If at least five readers submit acceptable entries, with or without solutions, the contest will be launched.

E.J.M.

MAIL ALERT

You should have received the *Record*, Vol. 9, No. 4, covering 1983 Annual Meeting. If you haven't, notify the Society office.