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Editorial

New horizons for corporate actuaries

by Richard K. Kischuk

My May editorial discussed some major trends in the life insurance industry and the opportunities they may create for actuaries. Many readers have expressed interest in how industry trends have developed through 1987 and 1988. Also, I've been asked to define some specific areas of opportunity.

Exhibit 1 updates some earlier information by showing the relative growth of surplus, assets, premiums, and life insurance in force for the industry from 1982 through 1987. Surplus has been adjusted for investments in subsidiaries and affiliates. During this period, surplus has grown by 7% per year. At the same time, assets, premiums, and life insurance in force have grown by 10% to 12% per year. Clearly, the life insurance industry has become more leveraged during this time. The need for surplus continues to increase faster than surplus is being created.

Exhibit 2 is a simplified display of major sources and uses of surplus

over the past three years. While life insurance profits are a major source of capital, these earnings are also the most stable and predictable. Moreover, while the industry's need for surplus has been increasing at double-digit rates, ordinary life profits have been stuck in neutral. To make up the difference, the industry has sought profits in other areas. But these earnings are much more volatile and create many new risk exposures.

The table shows that health insurance can not only provide significant profits in some years but also can generate very sizeable losses. In particular, the magnitude of the underwriting losses of 1987 and 1988 caught many insurance executives off guard. Capital gains, along with changes in the Mandatory Securities Valuation Reserve (MSVR), had a major impact on surplus position — positive in some years, negative in others. At the same time, investments in affiliates consumed the majority of the surplus generated during the three-year period.

These results have many implications for corporate actuaries. First,

actuaries spend much time and effort in projecting life insurance profits, both in the aggregate and by source. Yet this is the most stable and predictable source of surplus. On the other hand, health insurance results are cyclical, and models for projecting health insurance earnings are generally less developed. Many companies have difficulty predicting health results from quarter to quarter, much less from year to year. As a result, executives of most health writers were surprised by the underwriting losses that developed in 1987 and 1988. The ratings of some companies were downgraded or threatened by this development.

Similarly, most corporate planning models either ignore capital gains and losses or treat them very simplistically. However, swings in investment gains and losses are often more important than operating gains in planning the amount of surplus that will be available to support the company's growth strategies. And capital losses have the potential to generate

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Exhibit 1

Relative Growth of Assets, Premiums, Surplus and Insurance in Force

	1982 (\$ millions)	1987	Growth Rate
Admitted assets	590.8	1,044.3	12.1%
Premium income	122.0	212.2	11.7
Life insurance in force	5,514.3	8,874.9	10.0
Surplus	28.7	40.3	7.0

Source: *Best's Aggregates & Averages*

Exhibit 2

Sources and Uses of Surplus for the Life Insurance Industry

	1987	1986 (\$ millions)	1985
SOURCES:			
Net operating gain (loss):			
Ordinary life insurance	3.4	3.1	3.2
Other life insurance	2.4	2.3	1.9
Annuities	0.6	0.0	(0.2)
Accident and health	(0.3)	1.3	2.3
Capital gain (loss)	(1.1)	4.4	3.7
MSVR	(0.7)	(4.7)	(3.2)
Other (net)	—	0.8	—
Total	4.3	7.2	7.7
USES:			
Investment in affiliates	3.2	3.9	3.0
Retained earnings	0.9	3.3	3.5
Other (net)	0.2	—	1.0
Total	4.3	7.2	7.7

Source: *Best's Aggregates & Averages*

New horizons cont'd

unpleasant surprises, often threatening the company's ratings. This is particularly true for companies that have dramatically increased their exposure in junk bonds, leveraged buyouts, and other new types of investments.

Finally, investments in affiliates consumed more than half of the new surplus generated. Most corporate planning models assume that all of each year's increase in surplus will be available to support the growth of the company's in force business. Realistically, these models should incorporate management's strategies for acquisitions and the formation of new subsidiaries.

In the past, life insurance profit margins were much higher, and it was relatively easy for most companies to weather the cyclical impact of health underwriting losses and capital losses. However, life insurance profit margins are a fraction of what they once were, and health insurance and asset exposures have multiplied. Many companies have seen their ratings threatened by risk exposures that they were not fully aware of. Insurance executives have a need to identify, quantify, and plan for the risks they face. They need to know where they may be "betting the company."

Corporate actuaries can help management by learning about areas that may be new to them. Health care is a growth sector of the U.S. economy. However, to capitalize on this opportunity, companies must develop better capabilities to project and manage health results. Similarly, most companies must look to capital gains as a major source of new surplus. However, investment strategies must be designed to avoid surprises and to better anticipate the timing and amount of capital gains and losses. Finally, many actuaries will need a better understanding of their company's acquisition and diversification strategies in order to provide for these future investments of company surplus.

For many actuaries, a good first step is to expand their involvement in the Society's special interest sections beyond their primary area(s) of specialty. Of particular interest are the Health Section and the Investment Section. The Society has been addressing many of these topics through seminars and through sessions at annual and spring meetings. In addi-

tion, Society members should not hesitate to contact members of the board and section councils with suggestions as to how the Society can support professional development in these emerging areas of concern for corporate actuaries.

ACTEX Study Manuals

ACTEX Study Manuals for the May 1989 exams will be available for all Associateship Courses and for Fellowship Courses 200, G-420, G-421, I-340, I-442, I-443, I-540, P-360 (EA-1B), P-363, P-461, P-560, and P-564. Manuals for Associateship Courses 100 and 110 are 1987 editions; all other manuals are new 1989 editions.

Details are available in your Society Study Note package, or by mail from Actuarial Bookstore, P.O. Box 1229, Dover, NH 03820, or by mail or phone from ACTEX, P.O. Box 974, Winsted, CT 06098, (203) 379-5470.

Research Development Fund

With the increased emphasis on research for the Society, the Board of Governors established the Research Development Fund to accept charitable (tax deductible in the U.S.) contributions and bequests. The purpose of the Fund is to foster the development of actuarial science and to augment the actuarial research program sponsored by the Society.

The Board believes that the membership has a deep interest in research and that many members or their companies would wish to support actuarial research. The Research Development Fund provides such a vehicle. The fund is controlled by the Board, and research efforts underwritten from it require Board approval. With sufficient contributions, the Research Department Fund will be used to support "big picture" types of research that can affect the profession.

If interested in making a tax-deductible contribution (in the U.S.), make your check out to the Society of Actuaries and send it to the Society Office in Schaumburg, Attention: Research Development Fund.

EA seminar on coast-to-coast TV

In an exciting new development in continuing education for actuaries, the SOA will televise a seminar on "Minimum/Maximum Tax Deductible Contributions" January 26 to sites in more than 20 cities.

The four-hour teleconference, which will be broadcast live from the teleconferencing facility of the American Hospital Association in Chicago, will offer five core hours of EA credit. Audience members at other sites will be able to phone in questions to the speakers.

Faculty members will be:

- Barnet N. Berin, FAS, MAAA, FCA, Managing Director-Chief Actuary, William M. Mercer-Meidinger-Hansen
- Christopher M. Bone, ASA, MAAA, Consulting Actuary, Actuarial Sciences Associates
- Edward E. Burrows, MAAA, MSPA, President, The Pentad Corporation
- James E. Holland, Jr., ASA, Chief, Pension Actuarial Branch, Internal Revenue Service

Discussion will cover the significant changes in the determination of pension plan tax-deductible contributions brought about by OBRA '87, a difficult technical subject that is still evolving. The panel will discuss the maximum and what has been learned in 1988; the minimum effective in 1989; and related issues on a current basis. A notebook with tables to develop these contributions will be furnished.

This innovative classroom experience is sponsored by the SOA in cooperation with the American Academy of Actuaries, the American Society of Pension Actuaries, and the Conference of Actuaries in Public Practice.

The teleconference will be broadcast to hotels in the following cities:

Atlanta (2 sites)	Los Angeles (3 sites)
Boston (2 sites)	Miami
Chicago (5 sites)	Milwaukee
Cincinnati	Minneapolis
Cleveland	New York (8 sites)
Dallas	Philadelphia (2 sites)
Des Moines	Pittsburgh
Detroit	St. Louis
Ft. Lee, NJ	St. Paul
Fort Worth	San Francisco (2 sites)
Hartford (2 sites)	Seattle
Houston	Washington, D.C.
Indianapolis	

Watch your mail for a brochure containing registration information and program details.