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Product Profitability cont'd.

most favorable profit test result, while the minimum result (Min) represents the least favorable result. Profits under the level interest rate scenario also are provided here for comparison.

The multiple scenario results reveal that profits on the VUL product are much less volatile than the UL product. One should note that on the VUL product the median result under multiple scenarios is more favorable than the level interest rate result. However, the opposite is true on the UL product. The UL product's profitability is more volatile primarily because of additional lapses, which result when the UL product's credited rate falls below the competitors' credited rate. In fact, these additional lapses create a significant difference between the two products in the amount of business that is in-force in later years. While the VUL product has about 28% of its business in-force after 20 years, the comparable median result for the UL product is only 8%.

Conclusion

It appears that a company considering a variable product can develop a typical VUL product with adequate profitability, as compared to the company's current UL product. In fact, profit results under multiple interest rate scenarios suggest that earnings on the UL product are subject to larger swings due to interest rate changes. In the end, however, profitability will depend on many factors, including the amount of additional expenses incurred on the variable product, actual production levels, ability of the company's distribution force to sell the VUL product, and the impact of interest rate changes on lapse rates.

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In Memoriam

Robert D. Drisko F.S.A. 1958

Joseph B. Glenn F.S.A. 1931

Henry S. Huntington III F.S.A. 1951

Bennet B. Murdock A.S.A. 1942

Editorial

Opportunities in Restructuring

by Richard K. Kischuk

Restructuring has been a way of life for most industries in the 1980s, including life insurance. This is creating tremendous opportunities for the actuarial profession, if we choose to capitalize on them.

For most of the twentieth century, whole life insurance has been the bread-and-butter product for the industry. This began to change in the 1940s as insurers diversified into employee benefits. More recently, sales have shifted toward term insurance, variable products and interest-sensitive products. Insurers have begun to offer managed health care services, and many have diversified into banking, property-casualty insurance, securities brokerage, mutual funds and other financial services.

As Exhibit 1 shows, these trends have intensified during the 1980s. From 1981 through 1986, life insurance products provided \$16 billion of surplus. Most of this surplus was reinvested to support the growth of annuities, which consumed more than \$14 billion of capital. Overall, the industry has experienced a tremendous shift of capital from whole life insurance to term insurance and interest-sensitive products. Life insurers have also made huge investments in managed health care, variable products and other types of financial services.

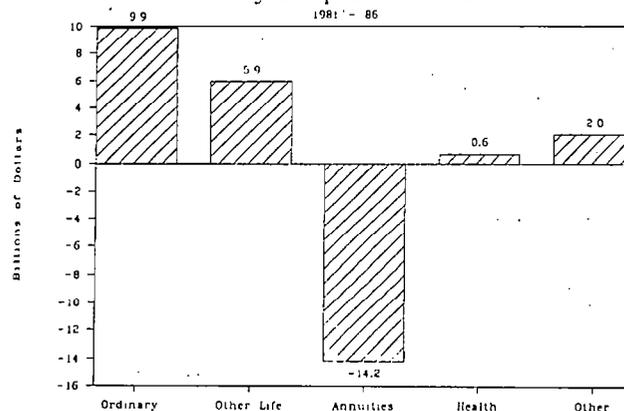
Traditionally, profits from ordinary life insurance, the backbone of the industry, have not only provided most of the dividends to policyholders and shareholders but have also financed the industry's diversification into other areas. However, as Exhibit 2 illustrates, capital generated by ordinary life insurance appears to have peaked in 1983. This has been caused by a fundamental decline in profit margins from ordinary life insurance (see Exhibit 3). Profitability has fallen off sharply as lapse rates have risen and sales have shifted from whole life to term insurance and interest-sensitive products. AIDS claims will erode the capital still further.

This trend has probably not been obvious to many companies because it was more than offset by health insurance profits in 1984 and 1985, along with capital gains in 1985 and 1986. Of course, these are both cyclical sources of profit, and they do not provide a permanent offset to the erosion of ordinary life profitability.

Increasingly, chief executive officers are realizing that they have little time to create a new underpinning of profits to replace the earnings from traditional whole life products. Unfortunately, returns from most of the newer activities — variable products, interest-sensitive products, managed health care and financial services — have not met expectations.

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EXHIBIT 1
Vitality Surplus Generated



Source: Crown Point Financial Model Best's Aggregates & Averages

EXHIBIT 2
Ordinary Life Insurance
1981 - 86

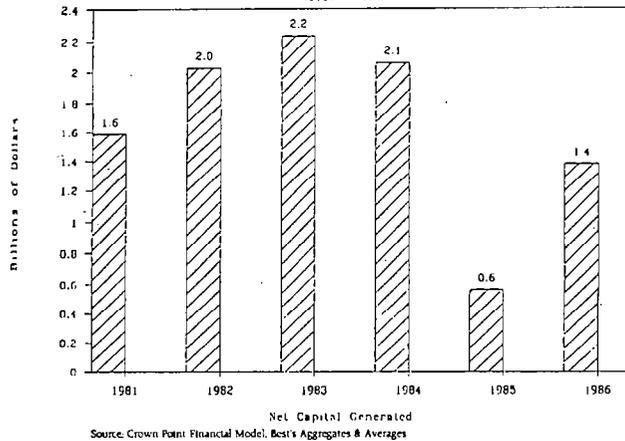
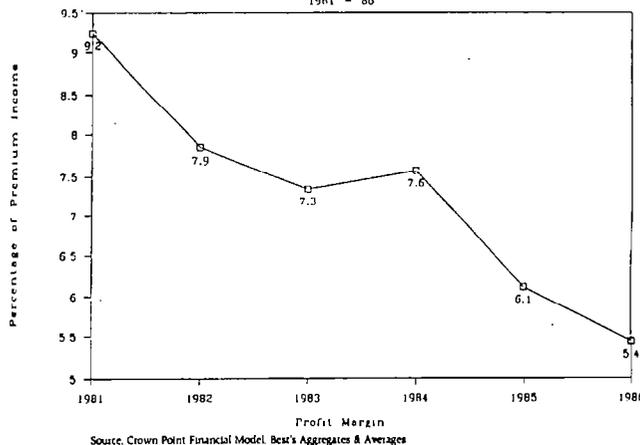


EXHIBIT 3
Ordinary Life Insurance
1981 - 86



Retention Analysis

by Jerald Helm

(Ed. Note: The following article is reprinted with permission from the Reinsurance Section Newsletter from March 1987.)

The setting of proper limits of retention of risk for individual lives is an important piece of a company's total plan of operation. An under-retained company may find that it may be able to afford to increase its retention and decrease per unit expenses through economies of scale. On the other hand, an over-retained company may be risking excessive liability.

An important reason then, for retaining only a portion of the business issued, is to stabilize expenses resulting from claims from large policies. If the amount of claims could be predicted under various retention scenarios, a company could choose the retention level which would best fit its financial situation. Predicting these claims may be accomplished by using techniques of probability and statistics to derive expected claims and the associated standard deviations. An example may help with understanding the procedure.

There are several items of input needed to perform a retention analysis. The M.I. Low Life Insurance Company has the following distribution of policies, representing its total in force by face amount, before reinsurance:

Policy Distribution

| Size | Count |
|-------------------|-------|
| 0 - 5,000 | 5,082 |
| 5,001 - 10,000 | 6,962 |
| 10,001 - 25,000 | 9,679 |
| 25,001 - 50,000 | 5,131 |
| 50,001 - 75,000 | 3,953 |
| 75,001 - 100,000 | 1,322 |
| 100,001 - 125,000 | 722 |
| 125,001 - 150,000 | 479 |
| 150,001 - 175,000 | 251 |
| 175,001 - 200,000 | 185 |
| 200,001 + | 264 |

In addition, an evaluation of the company's claims experience can be made to estimate an overall rate of mortality. M.I. Low Life has experienced a mortality rate of 1.85 per

Continued on page 10 column 1

To realize the potential of these new ventures, companies must move quickly to make fundamental changes in their marketing strategies, cost structures, asset-liability management, underwriting methods, and capital structures. To effect the transition, companies are beginning to employ the same financial management methods industrial companies have successfully used, such as discounted cash flow, financial ratio analysis, capital asset pricing modeling, and break-even analysis.

At the same time, companies must be careful to avoid techniques which have outlived their usefulness. For example, while return on equity is still a useful framework for financial decision-making, it is deficient as an overall corporate goal. "Return on management" is beginning to replace "return on equity" as the relevant benchmark for measuring company performance.

This creates a challenging environment for actuaries. To help

companies make the transition into the 1990s, actuaries must be aware of financial management techniques developed by MBAs, CPAs, economists and others. Many traditional approaches used by actuaries are now irrelevant and must be replaced with modern methods.

Restructuring the insurance industry is also creating pressure for a transition in actuarial practice. To be part of the solution, we must update actuarial science and expand into new areas. Among other things, this will require a revitalized research effort by the Society of Actuaries. Even more so, both basic and continuing education must extend into nontraditional topics. And each of us must look for innovative ways to help our companies and clients to be successful in creating a new base of profitability for the 1990s. Our challenge is to keep up with the pace of change that is taking place in the life insurance industry. If we are successful, the actuarial profession and the insurance industry will prosper together.