Article from:

The Actuary

April 1972 – volume 6 - Issue 4

NATURAL RESERVES REVISITED

by Paul H. Knies

About two years ago, the effort to obtain more meaningful earnings figures for the use of stockholders and investors of life insurance companies turned to a concept labeled "natural reserves." To actuaries, the concept of natural reserves had been around for several decades, and was used to estimate the funds expected to be on hand at each duration, assuming that the assumptions made by the actuaries were actually experienced. By using a hypothetical non-profit premium based on "most likely" assumptions with regard to mortality, interest, and expenses, the natural reserve indicates the level of cash values that can be provided under such assumptions without gain or loss from surrender.

The current effort would turn natural reserves to a different purpose by defining them in terms of assumptions that are appropriate for a company's gross premium calculations. The argument is made that by adopting adjusted reserves equal to natural reserves defined in this way, a more reasonable amount will be set aside for future payments and any remaining cash flow can be considered profit. This use of such natural reserves implies that the reasonable floor assumptions for mortality and interest in statutory reserves are to be replaced by those assumptions with regard to mortality, interest, expenses and withdrawal that are appropriate for premium calculations. As a result, profits would emerge in proportion to premium income.

This approach was promptly espoused by various persons and groups in the life insurance industry and by some members of the accounting profession. It was advanced as being the logical answer to the problem of arriving at a generally accepted basis for reporting earnings which automatically disposes of the problem of how to handle acquisition expenses. Many found in the new approach a ready-made answer to the problems which for the last decade or so had plagued all previous attempts to produce earnings for non-participating personal life insurance business on a basis consistent with generally accepted accounting principles.

But does the use of natural reserves really solve the earnings problem? Does it produce earnings in accordance with generally accepted accounting principles? The answer to both questions is "No."

What of the assumption that this use of natural reserves will produce a generally acceptable, or even a valid, basis for adjusted earnings? In those instances where the actuary loaded all profit on to a "no profit" premium, what could appear more natural than the emergence of profit in proportion to premium income? But some second thoughts are beginning to arise that suggest other patterns that are more appropriate—more natural. After all, the basic standing concept in profit emergence for service contracts in general—and a life insurance policy is a service contract—is that profits should emerge as the service is rendered. The concept that profit should emerge in the same manner as price is determined (or can be imputed to have been determined) is contrary to generally accepted accounting principles. The design of the pricing formula does not bind the accounting system to a corresponding emergence of profit. If such were the case, it would seem that disclosure of the pricing system would be essential to proper disclosure of all factors relevant to the annual report. However, we are not aware of any industry wherein individual companies have to disclose their pricing structure, that is, of any industry wherein the accounting system is controlled by the pricing formula.

Under a life insurance policy, what would be a reasonable basis on which to say that the service has been rendered by the company to the policyholder? The major risks that the stockholders assume and for which they are entitled to profit are those relating to mortality and investment experience. While it might be difficult to quantify how to measure the service performed, three facts are quite obvious. First, the mortality risk increases by duration; second, the investment risk increases by duration; and third, a profit related to a proportion of premium does not increase by duration. Hence, the use of these natural reserves for purposes of determining profit emergence is not in conformance with the shareholders' entitlements.

Another way to look at this is to realize that to use this natural reserve approach is to isolate the profit element of the premium into a level amount and then to ignore the most basic concept in life insurance accounting—that is, that reserves, whether statutory, natural, or of a contingency nature, are necessary in order to match income with the outstanding risk. Thus, to take one example, a uniform level of income cannot be matched against an increasing mortality risk without the intermediation of a reserve. By the same token, a uniform level of profits is incompatible with an increasing degree of service with advancing policy duration. In other words, any profit element that is incorporated as a uniform percentage of the premium should generate reserves—reserves which will be released as the company is released from risk. Only in this way will profits emerge as the service is rendered to the policyholder.

When gross premiums are calculated with the appropriate degree of conservatism build into each of the various assumptions, the emergence of profit will automatically parallel the release from risk pattern, and will be in accordance with generally accepted accounting principles. The adaptation of natural reserves which operate to release profits in proportion to premium income is inherently unsound, results in an anticipation of profit, and is not in accordance with generally accepted accounting principles or any other set of sound principles.

If natural reserves are not the answer, then where do we go? It is suggested that we pause and reassess the essence of the problem — acquisition expenses and how to handle them. By concentrating on acquisition expenses, how to define them, and how to amortize them for the purpose of providing special information for stockholders and investors, the adjustments necessary to conform with general purpose reporting will lie within the accountant's area of expertise. If material distortion of earnings is still thought to occur, it should be viewed as indicative of the need to review statutory valuation standards, an activity lying within the actuary's area of expertise. □