



SOCIETY OF ACTUARIES

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## College of Insurance

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New York for more than 60 years. Though established only six years ago, the College has been fully accredited by the Middle States Association of Colleges and Secondary Schools.

The total student enrollment in the College in all its branches is about 2,500 men and women. Day and night divisions operate twelve months a year on a campus that includes the headquarters at 150 William Street in New York City, an adjacent annex, and classrooms provided by sponsoring insurance companies throughout the city as well as in Westchester County, N.Y.

The faculty is an uncommon combination of able academicians and practicing insurance experts. The insurance library, which now houses among other collections those of the Society of Actuaries and the Casualty Actuarial Society, is one of the best in the world. The relatively new Ecker Library established in support of the liberal arts has been the source of commendation for its strength and balance.

The College is unique in serving the basic, and many of the special, academic needs of a single business—the insurance industry. In recognition of its increasing usefulness, the number of its sponsors is growing steadily throughout the country. □

## Surplus Surplus

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be made to quantify this qualitative observation and to give it practical effect in the investment latitude permitted to managements of stronger companies.

It is true that things are not always what they seem; and many of us have been around long enough to know that if objective standards for surplus surplus are established, strenuous efforts will be made to demonstrate the possession of such commodity where it does not exist. Still, we know from experience that no set of rules will insure the solvency of every carrier and that no regulatory system is infallible. Some cautious attempt to permit obviously super-solvent non-life companies somewhat greater investment freedom would seem to be worth trying.

I share Mr. Rosenthal's concern over the, shall we say, naive view expressed in the Report: that, in the near-term future, precise mathematical techniques will certainly be operational to ascertain, for regulatory and management purposes, the required amount of policyholders' surplus for a given amount of current premium writings, loss reserves and equity investments of non-life companies. The specific points he makes in the last two sections of his comment are quite valid for both life and non-life companies. I would even go further and point out that management decisions with regard to assumption and reinsurance of risk can change the subsequent short-run risk mathematical evaluation of a life portfolio noticeably and of a non-life portfolio substantially. However, the fact that a mathematical analysis of a risk portfolio may have defects does not mean that such analysis should not be carried out. If we insisted that a mortality table be good for all time, we might never carry out mortality investigations.

Some things that the Committee states are very pertinent. The mathematical theory today is somewhat closer to realism than it was, say twenty years ago; and computers do make a difference. Even ten years ago the emphasis in the mathematical manipulation was to avoid multitudinous calculations. Present-day computers certainly do not solve the computation problem completely, but they do give more freedom in setting assumptions which will more nearly correspond with reality. In short, risk mathematical analyses are worth making; they are certainly not conclusive, but neither are they meaningless.

### Establish Criteria

If the concept is to be adopted that some companies are to be allowed greater investment freedom on the basis of existing superior overall protection to policyholders, obviously, some objective criteria must be laid down. A time-honored method of approach to such a problem is to study the characteristics of, say, one hundred companies which one *knows* are eminently solvent and try to abstract some universal characteristics. A mathematical analysis of each such company's risk portfolio would, I believe, be one highly useful element in such a study.

Having abstracted a set of criteria, these would then be applied to other companies, particularly to as many as possible which one *knows* could not be permitted any latitude at all.

Analysis of the results of these procedures should produce a reasonable set of criteria.

I certainly agree that a single figure, such as the probability of ruin within five years for a particular company, taken in isolation would have little meaning. I believe an array of risk mathematical quantities, such as ruin probabilities and expected values of excess claims, when compared for a large number of companies, would yield information about the companies and, very likely, lead also to modifications in the mathematics.

I do have to point out, however, that extracting the necessary information from any company's records is not easy; and carrying out such a project would be quite demanding of time, money and technical competence. □

## SOCIAL SECURITY NOTES

J. M. Ceccarelli, *Maximum Benefits Under the Social Security Amendments of 1967*, Actuarial Note No. 40, and *Illustrative Total Monthly Family Benefits Under the 1967 Amendments*, Actuarial Note No. 41, Social Security Administration, Washington, D.C., March 1968.

The first note gives the conditions under which the maximum primary insurance amount (PIA) of \$218 under the OASDI system will actually be paid. Five tables are presented, showing what the new maximum PIA payable will be under certain conditions and giving information regarding the various sizes of family in order to receive the maximum family benefit payable.

The second note contains a table which shows the amounts of monthly family benefits payable under the OASDI system to various family groups for each possible average monthly wage. The text explains the method for calculating permanently-reduced benefits and the application of the maximum family benefit.

Copies of both notes are available without charge, upon request to Robert J. Myers, Chief Actuary, Social Security Administration, Washington, D. C. 20201. □