

The whole book has been used for two years at the University of Michigan in a fifteen week course of three hours weekly. It gives a most interesting and extensive approach to a complex field for the college student, the consumer or the novice insurance agent as well as to foreign experts who are not familiar with the U.S. insurance market.

M. Derron

HANS AMMETER, *Das Maximum des Selbstbehaltes*, Verzekeerings-archief 1958, pp. 219-246, Actuariëel Bijvoegsel 1958, pp. 101-106, 's-Gravenhage.

The first part discusses, in non-mathematical language, the detailed implications of collective risk theory in the determination of the maximum net retention. Three notions are of predominant importance:

- (a) The financial stability of the annual results
- (b) The solvency of the company in relation to its reserves and
- (c) The costs-situation as regards reinsurance and other safeguards.

The arguments are illustrated by numerical calculations based on theoretical models. (c) represents a typical case of "operational research"; by varying the maximum retention the insurer may endeavour to minimise the costs. Of the various ways of reinsuring risks the author prefers a combination of stop loss reinsurance and individual excess reinsurance.

The second paper is the analytical counterpart of the first one and deals with the methods and distributions on which the calculations are based, stress being laid on the applicability of the negative binomial distribution. Upperbounds  $e^{-Ru}$  for the ruin probabilities are derived by solving the equation  $\int_{-\infty}^{\infty} e^{-Ry} dG(y) = 1$  where  $u$  is the initial reserve and  $G(y)$  the profit distribution.

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