

ximately χ^2 - or normal-distributed and which can serve as a basis for the desired investigation. J. K.

Versicherung und Risiko, by PAUL BRAESS, Köln. Betriebswissenschaftlicher Verlag Dr. Th. Gabler, Wiesbaden 1960 *).

This publication gives an introduction to the so-called individual theory of risk and subsequent problems. By means of the relative standard deviation of the total sum to be paid in one year which, in the simplest case with equal sums at risk, is given by the well known expression

$$S = \sqrt{\frac{1-q}{nq}} \quad \begin{array}{l} q = \text{claim rate} \\ n = \text{number of independent risks} \end{array}$$

the influence of

the extent of the portfolio,
heterogeneous sums at risk,
variations in the claim rates,
partial claims,
repeated claims, etc.

is discussed. Well chosen examples illustrate the results obtained. The mathematical analyses by Dr. Gertrud Jäger and Dipl. Math. Hermann Fangmeyer are separated from the main part and collected in two special appendices.

The purpose of this publication is to provide an elementary approach of risk theory to the mathematically untrained insurance employee. Therefore only a limited mathematical knowledge is presupposed and the results of modern literature, especially of the collective risk theory, are not taken into account. The author's objective is largely justified since, apart from a rather restricted group of actuaries especially interested in these problems, the main results of risk theory are scarcely known in the insurance world.

On the other hand the question arises whether the goal aspired by the author may, in fact, be realized by using his methods. Readers not familiar with mathematical statistics and the theory of probability might already be troubled by the abstract nature of the risk standard S . The difficulty would probably be somewhat reduced if the distribution concept were to be chosen as the starting point. The risk standard S as a measure of dispersion of the various distributions according to the essential risk properties of the portfolio in question, might then be more easily understood.

The book represents a valuable contribution to actuarial literature. The desired propagation—in particular in not especially actuarial circles—would be facilitated however if the book could be available independently of the whole compendium. H. A.

*) This book is a part of the compendium "Die Wirtschaftswissenschaften" (Economic science) published by Prof. E. Gutenberg. Complete edition 8000 pages, 48 issues (appearing monthly at DM 8.70; 25th issue).—No purchase of single issues permitted.