

(1951) and in Brussels (1960). The applications can be divided into three groups:

- (a) Samples drawn from existing finite populations. Methods of estimating premium reserves by means of samples, methods of sampling inspection and quality control in relation to administrative work are discussed.
- (b) Random samples drawn from theoretical populations. This means statistical inference by means of e.g. significance tests and interval estimation.
- (c) Monte Carlo and similar techniques based on simulation.

Enige aspecten met betrekking tot het solvabiliteitsvraagstuk in het schadeverzekeringsbedrijf, by C. CAMPAGNE, *Het Verzekerings-Archief*, January 1959. 's Gravenhage.

Considerations derived from collective risk theory may be used to derive a minimum solvency standard to be maintained by the insured; this minimal standard depends on the form of the risk distribution. Two probability schemes, namely the Poisson and the Beta distribution are introduced and compared. It is proved that the Beta distribution is a somewhat safer approach to adopt. Furthermore, the author argues that the insurer is practically safe as regards the danger of insolvency when the extra reserves amount to 25 % of the total annual premiums.

Winstgevendheid en Winstkansen bij Valuta-arbitrage, by C. VAN DE PANNE and A. STRANDERS. *Statistica Neerlandica*, 1960, p. 187-204, 's Gravenhage.

By systematic analysis of the matrices of buying and selling prices the authors are able to construct the chains of transactions which yield the highest profit. The method is applied to the figures of five countries at three different points of time.

The probability that there is a profit and its mathematical expectation may be calculated as soon as certain suppositions are made about the distribution of the changes of buying and selling prices. These quantities have been computed for two points of time on the assumption that the logarithms of these changes are distributed normally with mean zero and known constant variance.

The authors justify the probabilistic approach by stressing the "decision" character of the problem for which not all relevant factors are known.

Finally the simple model of normally distributed price changes with no time lagged correlations is criticised as being rather unrealistic but nevertheless of some use as it gives indications of those chains which are probably profitable.

J. van K.

The safety loading of reinsurance premiums by Karl Borch, Bergen, *Skandinavisk Aktuarietidskrift* 1960

In a previous paper the author has studied the case of two insurance companies negotiating with the purpose of concluding a reciprocal reinsurance treaty. These results are generalized in the first part of the present paper to an arbitrary number of companies.

By denoting the risk distribution by $F_i(x_i)$ and the available fund by S_i ,