

## NOTES ON OTHER ACTUARIAL JOURNALS

BY H. L. SEAL, B.Sc., Ph.D., F.F.A., A.I.A., A.S.A., F.C.I.A., F.C.A.,  
J. HAMILTON-JONES, M.A., F.I.A., F. W. ESCHRICH, F.I.A.  
AND J. A. MANSOOR, B.Com., F.I.A.

### FRANCE

*Bulletin Trimestriel de l'Institut des Actuaires Français*, 82, 1971

MASNOU, L. *Note sur la construction d'une table de mortalité pour un ensemble de populations de retraités au moyen d'une fonction de Weibull modifiée* (Note on the construction of a mortality table for a group of populations of retired persons by means of a modified Weibull function), pp. 187-9. This follows the article on reliability theory in an earlier Bulletin (82, 123).

*Présentation des résultats numériques obtenus par application de la précédente théorie à deux populations de retraités, l'une masculine: H, l'autre féminine: F.* (Presentation of numerical results), pp. 191-204.

LOISEL, J. *Les modalités de contrôle de l'équilibre financier des opérations d'épargne-logement* (Methods of control of the financial equilibrium of savings deposit operations), pp. 205-25.

CLEMENT-GRANDCOURT, A. *Politique de financement "Essai d'optimisation d'opérations financières"* (Politics of financing—trial optimization of financial operations), pp. 227-37. Deals with mathematical models for the output and the ultimate replacement of machinery.

*Bulletin Trimestriel de l'Institut des Actuaires Français*, 83, 1972

PICOT, J. *Incidence des variations de l'âge de la retraite sur l'équilibre financier des caisses. (Journées d'études du C.E.A. Décembre 1971)* (Incidence of variations in retirement age on the financial stability of pension funds (*caisses*)), pp. 27-83. Presents the report of a working group which discussed the topic in December 1971, and covered the Common Market countries.

### ITALY

*Giornale Dell'Istituto Italiano Degli Attuari*, 33, 1970

ARTOM, E. *Le Assicurazioni private e la comunità economica europea* (Private insurance and the European Economic Community), pp. 1-9.

AMMETER, H. *La Distribution du sinistre le plus élevé et son application au problème des grands risques* (The distribution of the highest claim and its application to the problem of large risks), pp. 10-29. 'Results obtained on the basis of a Pareto distribution present a high degree of validity in practice.'

CACCIAFESTA, R. *Sulla determinazione delle classi di rischio* (On the determination of classes of risk), pp. 38-48. Largely repeats the author's contribution to the 75th Anniversary of the Belgian Association.

SANTINI, C. *Considerazioni sulle funzioni di sopravvivenza del Quiquet* (Considerations on the survival functions of Quiquet), pp. 49-58.

OTTAVIANI, M. *Sulla probabilità di fallimento di una impresa di assicurazione nel caso in cui il caricamento per il rischio vari in funzione dell'ammontare del fondo di garanzia* (On the probability of ruin of an insurance office in the case in which the loading for the risk varies according to the amount of the guarantee fund), pp. 59-70.

- RIZZI, B. *Aspetti dei concetti di entropia e d'informazione* (Aspects of the concepts of entropy and of information), pp. 71–114. A summary in English appears at the end of this article.
- TOMASSETTI, A. *Sulla pereguazione delle tavole selezionate di mortalità* (On the graduation of select mortality tables), pp. 117–22. A simplification of the approach used for the British Offices Life Tables 1893.
- PACIONI, G. *Sul grado di mutualità nelle Assicurazioni* (On the degree of mutuality in insurances), pp. 123–32.
- ERCOLI, R. *Quantificazione economica del danno alla persona attraverso l'uso di tecniche attuariali* (Monetary determination of personal injury by the use of actuarial techniques), pp. 137–70. Criticizes some of the arbitrary rules for fixing compensation, and argues that the point of departure is the value of future income of a healthy life in the occupation (and so subject to the occupational mortality) of the victim. This should in theory be in "real" terms, and allow for an increase in living standards. The degree of incapacity is determined as a percentage on medical advice. Tables based on Italian population statistics are included in the appendices.
- TEDESCHI, B. *Equità ed equivalenza in campo finanziario-attuariale* (Equity and equivalence in the financial-actuarial field), pp. 171–9. Discusses the criteria by which premiums and benefits in insurance contracts might be considered to be truly equivalent.
- OTTAVIANI, M. *Caricamenti per il rischio dipendenti dall'ammontare del fondo per il rischio e probabilità di fallimento* (Loadings for the risk dependent on the amount of the fund for the risk, and probability of ruin), pp. 180–9.

## PORTUGAL

*Instituto dos Actuários Portugueses, Boletim, 27, 1971*

- BÜHLMANN, H. *La théorie du risque et son application dans les branches non-vie*, pp. 1–10. An elementary introduction through analogy with mortality risks.
- GARCIA, J. M. A. *O risco automóvel: introdução ao seu tratamento estatístico através da teoria do risco*, pp. 11–30. A discursive introduction to risk premiums for automobile insurance.
- DA SILVA, E. M. D. J. *Determinação da função generalizada de Poisson através do método dos momentos. Aplicação ao ramo automóvel*, pp. 31–40. The Poisson mixed by convolution on a gamma distribution is fitted by moments, the numerical example being 1,148 individual automobile claims for up to 20,000 escudos. (The Beard–Pentikäinen–Pesonen text: *Risk Theory* (Methuen) is here ascribed to Beard alone and in the prior article to Pesonen alone!)
- MIRANDA, A. C. *Theoria das diferenças*, pp. 41–92. The continuation of the first chapter of a text on difference theory.
- COELHO, J. D. *Simulação do total das indemnizações numa carteira de seguros*, pp. 93–9. A brief introduction to simulation by means of pseudo-random numbers on a computer.

## SWITZERLAND

*Mitteilungen der Vereinigung schweizerischer Versicherungsmathematiker, 72, 1, 1972*

- FRAUENFELDER, W. *Die fondsgebundene Lebensversicherung in Deutschland und Frankreich*, pp. 17–37. Deals with technical, administrative and legal problems of unit-linked life assurance in Germany and France.
- FESSEL, M. and KREIS, H. W. *Datenerfassung und statistische Auswertung ärztlich untersuchter Risiken in der Lebensversicherung*, pp. 39–51. The paper deals with the use of computers for the investigation of the mortality of medically selected lives.
- NEUHAUS, J. *Über die Renditesatz-Faustformeln*, pp. 53–64. The accuracy of various rules of thumb for the calculation of yield rates of fixed interest investments is investigated and a further rule suggested.
- STRICKLER, P. and WETTENSCHWILER, K. *Bemerkungen zur Auswertung der Invaliditätserfahrung bei Einzelrisiken*, pp. 65–76. Some thoughts on the interpretation of disability insurance

experience are presented with reference to a small in-force of individual risks; premium and reserve values are calculated from the observed data of a portfolio of Swiss policies.

SEAL, H. L. *Numerical calculation of the probability of ruin in the Poisson/Exponential case*, pp. 77–100. Evolves and evaluates a new expression for the numerical calculation of the probability of non-ruin through the  $n$ th claim for a general insurance company with a given initial risk reserve and with claims and their amounts being distributed Poisson/exponential.

DELAPORTE, J. *Construction d'un tarif d'assurance automobile basé sur le principe de la prime modelée sur le risque*, pp. 101–13. Describes the development by experience rating methods of the 1961 proposal for the French Third Party Motor Risk tariff, using a Poisson distribution of the number of claims with the Poisson parameter having a truncated Gamma distribution over the collective.

LOEFFEL, H. *Perspektiven der modernen Statistik*, pp. 115–23. The article describes the growth of mathematical methods in statistics and the increasing interaction between statistics and kindred sciences, especially mathematical decision theory. It also refers to the changes brought about by the development of computers.

STRAUBER, K. *Der Einfluss des vorzeitigen Abganges auf die Überschussbildung*, pp. 125–35. Examines the effect of lapses and surrenders on the surplus arising from a portfolio of endowment assurances.