

Interactions Between Agricultural and Resource Policy: The Importance of Attitudes Toward Risk, by H. D. Leathers and J. C. Quiggin

Using a method proposed by J. Meyer for deriving comparative statics results in the presence of risk, this paper analyzes the effects of various agricultural and environmental policy alternatives on the choices of a risk-averse producer with a Just and Pope production function. Many commonly held beliefs about policy effects are not supported unambiguously by economic theory. For example, a tax on pesticides will not necessarily reduce pesticide use or average output, and a reduction in price of agricultural output will not necessarily lead to a reduction in use of water or agricultural chemicals. *American Journal of Agricultural Economics*, Vol. 73, No. 3 (August 1991), pp. 757-64. (Reprinted with permission of the *Journal of Economic Literature*).

18 L4J

PROBABILITY THEORY

From the Generalized Gamma to the Generalized Negative Binomial Distribution, by Hans U. Gerber (University of Lausanne, Switzerland)

The generalized gamma distribution contains the gamma and the Inverse Gaussian distribution. Used as a mixing distribution for an unknown Poisson parameter it leads to the generalized negative binomial distribution. *Insurance: Mathematics and Economics*, Vol. 10, No. 3 (December 1991), pp. 303-09. (Reprinted with permission of the North-Holland Publishing Company).

19 L4J

MATHEMATICAL AND STATISTICAL MODELS

A Bootstrap Procedure for Estimating the Adjustment Coefficient, by Paul Embrechts (ETH, Zürich, Switzerland) and Thomas Mikosch (TU-Dresden, Dresden, Germany)

A bootstrap procedure for estimating the adjustment coefficient in insurance risk theory is proposed. Based on some work by Bártfai (1970) and Csörgö and Steinebach (1991) it is shown that the bootstrap estimator is strongly consistent. *Insurance: Mathematics and Economics*, Vol. 10, No. 3 (December 1991), pp. 181-90. (Reprinted with permission of the North-Holland Publishing Company).

Event-Study Methodology Under Conditions of Event-Induced Variance, by Ekkehart Boehmer (Louisiana State University), Jim Musumeci (American University), and Annette B. Poulsen (University of Georgia)

Many authors have identified the hazards of ignoring event-induced variance in event studies. To determine the practical extent of the problem, we simulate an event with stochastic effects. We find that when an event causes even minor increases in variance, the most commonly-used methods reject the null hypothesis of zero average abnormal return too frequently when it is true, although they are reasonably powerful when it is false. We demonstrate that a simple adjustment to the cross-sectional techniques produces appropriate rejection rates when the null is true and equally powerful tests when it is false. *Journal of Financial Economics*, Vol. 30 (December 1991), pp. 253-72. (Reprinted with permission of the North-Holland Publishing Company).

(20) (*)

RUIN THEORY

Computational Methods in Risk Theory: A Matrix-Algorithmic Approach, by Søren Asmussen (Aalborg University, Denmark) and Tomasz Rolski (Wrocław University, Poland)

This paper is concerned with the numerical computation of the probability $\psi(u)$ of ruin with initial reserve u . The basic assumption states that the claim size distribution is phase-type in the sense of Neuts. The models considered are: the classical compound Poisson risk process, the Sparre Andersen process and varying environments which are either governed by a Markov process or exhibit periodic fluctuations. The computational steps involve the iterative solution of a non-linear matrix equation

$Q = \psi(Q)$ as well as the evaluation of matrix-exponentials $e^{\cdot}$. A number of worked-out numerical examples are presented. *Insurance: Mathematics and Economics*, Vol. 10, No. 3 (December 1991), pp. 259-274. (Reprinted with permission of the North-Holland Publishing Company).

21 (*)

HEALTH CARE ISSUES

Efficacy of Statistical Outlier Analysis for Monitoring Quality of Care, by K. D. Gillis and J. S. Hixson

Researchers have proposed that hospitals with excessive statistically unexplained mortality rates are more likely to have quality of care problems. The U.S. Health Care Financing Administration uses this statistical "outlier" approach to screen for poor quality hospitals. Little is known, however, about the validity of this technique because direct quality measures are difficult to obtain. Monte Carlo methods are employed to evaluate outlier technique performance as parameters of the true mortality process are varied. Results suggest that screening performance is very sensitive to variation in quality related mortality across hospitals, but

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