📄 Download This Paper (Delivery.cfm/SSRN_ID884460_code328684.pdf?abstractid=884460&mirid=1)

Open PDF in Browser (Delivery.cfm/SSRN_ID884460_code328684.pdf?abstractid=884460&mirid=1&type=2)

☆ Add Paper to My Library

Share: f 🐦 ✉ 🔗

A Note on Dependencies in Multiple Life Statuses

Bulletin of the Swiss Association of Actuaries, Vol. 1, pp. 19-34, 2000

22 Pages
Posted: 1 Mar 2006

Jan Dhaene (https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=328684)
Katholieke Universiteit Leuven

Marleen Vanneste (https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=586049)
KU Leuven - Department of Economics

H. Wolthuis (https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=410031)
University of Amsterdam - Department of Quantitative Economics (KE)

Abstract

We introduce the correlation order as a tool for describing and understanding dependencies in multiple life statuses. This order is well-known in the economical literature. It is a partial order in the class of all bivariate lifetime distributions with given marginals. It is shown that this order is preserved (or reversed) when pricing multiple life and last survivor insurance and annuity contracts. In particular, we establish conditions that provide information on phenomenon of over/underpricing when the usual assumption of mutual independency of the life times involved is made. The results can also be used to establish lower and upper bounds for the single premiums of insurances and annuities on joint-life and last-survivor statuses with given marginals.

Keywords: correlation order, joint-life statuses, last-survivor statuses,

Suggested Citation >

Show Contact Information >

26 References

1. R Aboudi , D Thon
   Expected utility and the Siegel paradox: a generalization
   Journal of Economics , volume 57 , issue 1 , p. 69 - 93 Posted: 1993
   Crossref (https://doi.org/10.1007/bf01237437)

2. R Aboudi , D Thon
   Second degree stochastic dominance decisions and random initial wealth with applications to the economics of insurance
   Journal of Risk and Insurance , volume 62 , issue 1 , p. 30 - 49 Posted: 1995
   Crossref (https://doi.org/10.2307/253691)

3. R E Barlow , F Proschan
   Statistical Theory of Reliability and Life Testing Posted: 1975

4. N L Bowers , H U Gerber , J C Hickman , D A Jones , C J Nesbitt
   Actuarial Mathematics Posted: 1997

0 Citations

Fetch Citations

Do you have negative results from your research you'd like to share?

Submit Negative Results (https://www.ssrn.com/index.cfm/en/Negative-Results/)

Paper statistics

DOWNLOADS	217
ABSTRACT VIEWS	1,349
RANK	255,971

26	References

Recommended Papers

The Concept of Comonotonicity in Actuarial Science and Finance: Applications (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=886281&rec=1&srcabs=884460&pos=1)
By Jan Dhaene (https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=328684), Michel Denuit (https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=328535), ...

The Concept of Comonotonicity in Actuarial Science and Finance: Theory (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=302322&rec=1&srcabs=884460&pos=2)
By Jan Dhaene (https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=328684), Michel Denuit (https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=328535), ...

Comonotonicity and Maximal Stop-Loss Premiums (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=884452&rec=1&srcabs=884460&pos=3)
By Jan Dhaene (https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=328684), Shaun Wang (https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=588274), ...

View more >

Feedback 💬

Submit a Paper > (https://hq.ssrn.com/submissions/CreateNewAbstract.cfm)

We use cookies to help provide and enhance our service and tailor content.

To learn more, visit Cookie Settings.

(http://www.relx.com/)

(https://papers.ssrn.com/sol3/updateInformationLog.cfm?process=true)