

Annals of Actuarial Science

VOLUME 8 – PART 2

International research, bridging the gap between theory and practice

Institute and Faculty of Actuaries

Maclaurin House
Exchange Crescent
7 Conference Square
Edinburgh · EH3 8RA

Staple Inn Hall
Holburn Gate
High Holburn
London · WC1V 7PP

Napier House
Park Central
40/41 Park End Street
Oxford · OX1 1JD

Editor: Angus Macdonald, Heriot-Watt University, Edinburgh

Associate Editors:

David Dickson, University of Melbourne,
Australia

Paul Embrechts, ETH Zurich, Switzerland

Edward W. (Jed) Frees, University of
Wisconsin-Madison, USA

Alois Gisler, Winterthur Insurance Company,
Switzerland

Jean Lemaire, Wharton School, University of
Pennsylvania, USA

Alexander McNeil, Heriot-Watt University, Scotland

Thomas Møller, University of Copenhagen,
Denmark

Hanspeter Schmidli, University of Cologne,
Germany

Mike Sherris, University of New South Wales
(UNSW), Australia

Ken Seng Tan, University of Waterloo, Canada

Rob Thomson, University of the Witwatersrand,
South Africa

Richard Verrall, City University London, UK

Subscriptions

Annals of Actuarial Science is published twice a year in the spring and autumn by Cambridge University Press for the Institute and Faculty of Actuaries. The 2014 subscription price is £133 (US\$226) for print and electronic access. The electronic-only rate is £114 (US\$195).

Cambridge University Press also publishes the *British Actuarial Journal* for the Institute and Faculty of Actuaries. A bundled subscription to both journals is available at £212 (US\$368) for print and electronic access. The electronic-only rate is £184 (US\$320). The *British Actuarial Journal* is also available as a standalone subscription at the same prices as the *Annals of Actuarial Science* above. All prices include delivery by air if appropriate, and exclude VAT. EU subscribers (outside the UK) who are not registered for VAT should add VAT at their country's rate. VAT registered members should provide their VAT registration number. Japanese prices for institutions (including ASP delivery) are available from Kinokuniya Company Ltd, P.O. Box 55, Chitose, Tokyo 156, Japan.

Orders, which must be accompanied by payment, may be sent to a bookseller, subscription agent or direct to the publisher: Cambridge University Press, The Edinburgh Building, Shaftesbury Road, Cambridge CB2 8RU, UK, email journals@cambridge.org or in the USA, Canada and Mexico: Cambridge University Press, Journals Fulfillment Department, 100 Brook Hill Drive, West Nyack, New York 10994-2133, email subscriptions_newyork@cambridge.org. Copies of the Journal for subscribers in the USA, Canada and Mexico are sent by air to New York to arrive with minimum delay. Postmaster: send address changes in USA, Canada and Mexico to Journals Fulfillment Department, 100 Brook Hill Drive, West Nyack, New York 10994-2133; or e-mail subscriptions_newyork@cambridge.org. Claims for missing issues will only be considered if made immediately on receipt of the subsequent issue.

Copying

All rights reserved. No part of this publication may be reproduced in any form or by any means, photocopying, electronic, or otherwise, without permission in writing from Cambridge University Press. Permission inquiries from the USA, Mexico, and Canada should be addressed to the New York office of Cambridge University Press <http://www.cambridge.org/us/information/rights/contacts/newyork.htm>; permission inquiries from elsewhere should be addressed to the Cambridge office <http://www.cambridge.org/uk/information/rights/contacts/cambridge.htm>; permission inquiries from Australia and New Zealand should be addressed to the Melbourne office http://www.cambridge.org/aus/information/contacts_melbourne.htm. Permission to copy (for users in the USA) is available from the Copyright Clearance Center (CCC), <http://www.copyright.com>, email: info@copyright.com. Specific written permission must be obtained for republication; contact the nearest Cambridge University Press office.

Advertising

To advertise in the journal please contact the relevant Advertising Promoter for your area: in the USA, Canada or Mexico: journals_advertising@cup.org or telephone +1 (212) 337 5053; in the UK, Europe or rest of the world: ad_sales@cambridge.org or telephone +44 (1223) 325083.

© Institute and Faculty of Actuaries

Annals of Actuarial Science is included in the Cambridge Journals Online service which can be found at <http://journals.cambridge.org/aaas>.