

# British Actuarial Journal

VOLUME 19 – PART 3

Current practitioner research and discussion in actuarial science

**CAMBRIDGE**  
UNIVERSITY PRESS

**2014**

# Institute and Faculty of Actuaries

Exchange Crescent  
7 Conference Square  
Edinburgh · EH3 8RA

Staple Inn Hall  
High Holborn  
London · WC1V 7QJ

Napier House  
4 Worcester Street  
Oxford · OX1 2AW

---

**Managing Editor:** Cathy Robertson

**Co-Editors** Trevor Couper  
Rose Walkling

**Assistant Editors:** Sanjeev Bhalla  
Wendy Crockford  
Jonathan Finn  
Robert Hudson

---

## Subscriptions

*British Actuarial Journal* is published three times a year 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 *Annals of Actuarial Science* 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). *Annals of Actuarial Science* is also available as a standalone subscription at the same prices as the *British Actuarial Journal* 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](mailto: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](mailto: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 Africa, Journals Fulfillment Department, 100 Brook Hill Drive, West Nyack, New York 10994-2133; or e-mail [subscriptions\\_newyork@cambridge.org](mailto: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](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](mailto: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](mailto:journals_advertising@cup.org) or telephone +1 (212) 337 5053; in the UK, Europe or rest of the world: [ad\\_sales@cambridge.org](mailto:ad_sales@cambridge.org) or telephone +44 (1223) 325083.

© Institute and Faculty of Actuaries

*British Actuarial Journal* is included in the Cambridge Journals Online service which can be found at <http://journals.cambridge.org/baj>.