FORM C: ABDC 2013 JOURNALS LIST REVIEW
RATING UPGRADE SUBMISSION

*** PLEASE NOTE THAT: FORM C is designed to formalise requests to the ABDC Journals Review Panel 2013 seeking an upgrade in rating of an academic journal which is currently included and rated in the ABDC 2010 list e.g. seeking to raise a rating from a "B" to an "A" journal. Please complete a separate form relating to each journal for which you wish to make a submission of this type.

Journal Title: ASTIN Bulletin

QC1. FIELD of RESEARCH (FoR) PANEL to which this request is directed (tick one box only):
- 0806 Information Systems
- 1401-1499 Economics
- 1501 Accounting
- 1502 Finance
- 1503 Management
- 1504-07 Marketing/Tourism/Logistics
- 180105/1801025 Business and Taxation Law

QC2. WHAT ABDC 2013 RATING DO YOU PROPOSE FOR THIS JOURNAL?
- A
- B
- C

QC3. WHAT ABDC 2010 RATING WAS THIS JOURNAL ASSIGNED?
- A
- B
- C

QC4. WHAT ERA 2010 RATING WAS THIS JOURNAL ASSIGNED?
- A
- B
- C
- not applicable

QC5. NOMINATE "THE BEST" COMPARATOR JOURNAL (journal from the ABDC 2010 list that is most similar in research quality): Journal of Corporate Finance

QC6. JOURNAL INFORMATION
Editor’s Name: Andrew Cairns (Editor in Chief)  Institution: Herriot Watt University
Web Address: http://www.actuaries.org/index.cfm?lang=EN&DSP=PUBLICATION

NATURE OF SUBMISSION

QC7. Primary submitter type (tick one box only)
- Higher Education Institutional Submission (e.g. formal submission from Business Faculty/School)
- Peak Body Submission (e.g. AFAANZ, ANZAM)
- Individual Submission

QC8. Primary submitter: Professor Michael Sherris
Institutional Affiliation: School of Risk and Actuarial Studies, Australian School of Business, UNSW

QC9. Are there other signatories to this submission?  Yes  No
- If yes, how many signatories are there (including the primary submitter)? 4
It is widely agreed internationally that the ASTIN Bulletin is among the top four Actuarial journals (the other three being Insurance: Mathematics and Economics, the North American Actuarial Journal and Scandinavian Actuarial Journal).

- These are the journals recruitment committees are looking for in applicants’ curriculum vitas to fill tenured actuarial positions.
- The Colquitt study - Colquitt L (2009) A Citation Analysis of Risk, Insurance and Actuarial Research, Journal of Risk and Insurance, vol 76 (4): 933-53 - ranks these as the top 4 journals (with ASTIN number 2). [See Appendix C7.a]
- The editorial board of the ASTIN Bulletin include the top actuarial researchers in the world. [See Appendix C1]

ASTIN (with North American Actuarial Journal) are the premier journals of the two most important international actuarial organisations. One of the most prestigious actuarial research prizes, the Hachemeister prize, is reserved to papers that were published in the ASTIN Bulletin (or presented at the ASTIN Conference).

The citation data of ASTIN is similar to that of some A* Finance (FoR 1502) journals. [See Appendix C4 and Appendix C6] This is despite the actuarial field being at a disadvantage when compared to other journals in FoR 1502 (due to the nature of the research which requires long development and has long journal acceptance lead-times AND the relatively small actuarial community). [See Appendix C7.b for details]

The case to upgrade the ASTIN Bulletin from 'B' to 'A*' is supported by Australia's four premier actuarial schools/departments (UNSW, Macquarie University, ANU, University of Melbourne) [See Appendix C8] and by eminent actuarial scholars from Asia, North America and Europe [See Appendix C3].
SUPPLEMENTARY INFORMATION: APPENDIX CHECKLIST

The ABDC invites further supplementary and supporting information to be submitted by way of appendices.

QC11. What supplementary information are you supplying (by way of appendices) to support your submission?

The following documents are attached in support of this application (please tick boxes as relevant):

☑ Appendix C1: List of Editorial Board Members
☑ Appendix C2: Description and Scope of Journal
☑ Appendix C3: Recommendations from eminent scholars in the relevant field
☑ Appendix C4: Comparisons with existing rated journals
☐ Appendix C5: Coverage in review articles
☐ Appendix C6: Impact Factors: SSCI or others
☐ Appendix C7: Other supporting documentation
☑ Appendix C8: Signatory Details – in cases where there are more than one signatory to the submission, list all signatory names and their university or relevant affiliations (this appendix should articulate with the answer given to QC9 above).
Appendix C1: List of Editorial Board Members (ASTIN Bulletin)

Editor in Chief
Andrew Cairns (Department of Actuarial Mathematics and Statistics, Herriot-Watt University, Edinburgh EH14 4AS, United Kingdom).

Editors
Daniel Bauer (Georgia State University).
Enrico Biffis (Imperial College London).
Pierre Devolder (Université Catholique de Louvain, Institut des Sciences Actuarielles).
David Dickson (Centre for Actuarial Studies, The University of Melbourne).
Montserrat Guillén Estany (Departament D'Econometria, Estadística I Economia Espanyola, RFA-IREA, Universitat de Barcelona, Spain).
Mario V. Wüthrich (ETH Zurich, RiskLab Switzerland).

Editorial Board
Yair Babad (University of Illinois at Chicago, USA).
Maria de Lourdes Centeno (Superior de Economia E Gestão, Portugal).
Jan Dhaene (Katholieke Universiteit Leuven, Belgium).
Mary Hardy (University of Waterloo, Canada).
Jean Lemaire (University of Pennsylvania, USA).
Gary Parker (Simon Fraser University, Canada).
Eduard Ponds (Tilburg University, The Netherlands).
Robert Reitano (Brandeis University, Canada).
Uwe Schmock (Vienna University of Technology, Austria).
René Schnieper (Swiss Financial Market Supervisory Authority, Switzerland).
Gary Venter (Chartis Insurance, USA).
Appendix C2: Description and Scope of Journal (ASTIN Bulletin)

ASTIN Bulletin - The Journal of the IAA was founded in 1958 as a journal providing an outlet for actuarial studies in non-life insurance. In the late 1980's the journal extended its scope to encompass the study of financial risk in insurance (AFIR/ERM). In 2007, the journal was established as the journal of the International Actuarial Association (IAA) and encompasses all of the scientific sections of the IAA.

ASTIN Bulletin - The Journal of the IAA publishes papers that are relevant to any branch of actuarial science and insurance mathematics. Papers should be quantitative and scientific in nature, and might draw on theory and methods developed in any branch of the mathematical sciences including actuarial mathematics, statistics, probability, financial mathematics and econometrics.

The journal welcomes papers that present significant and original theoretical developments and papers that present significant and original applications of mathematical, statistical or econometric theory to problems arising in insurance, pensions and finance. We especially welcome papers opening up new areas of interest to the international actuarial profession as well as papers that describe open problems that have arisen in practice.
## Appendix C3: Recommendations from eminent scholars in actuarial science (ASTIN Bulletin)

<table>
<thead>
<tr>
<th>Name</th>
<th>University affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hansjoerg Albrecher</td>
<td>Professor of Actuarial Science, Faculty of Business and Economics, University of Lausanne, Switzerland</td>
</tr>
<tr>
<td>Jun Cai</td>
<td>Professor, Department of Statistics and Actuarial Science, University of Waterloo, Canada</td>
</tr>
<tr>
<td>Hans-Ulrich Gerber</td>
<td>Professor of Actuarial Science, Faculty of Business and Economics, University of Lausanne, Switzerland</td>
</tr>
<tr>
<td>Stephane Loisel</td>
<td>Professor of Actuarial Science, ISFA, University Claude-Bernard, Lyon</td>
</tr>
<tr>
<td>Angus Macdonald</td>
<td>Professor of Actuarial Mathematics and Statistics, Heriot-Watt University, Edinburgh, UK</td>
</tr>
<tr>
<td>Elias Shiu</td>
<td>Professor, Department of Statistics and Actuarial Science, University of Iowa, USA</td>
</tr>
<tr>
<td>Rob Thomson</td>
<td>Professor, School of Statistics and Actuarial Science, University of Witwatersrand, South Africa</td>
</tr>
<tr>
<td>Hailiang Yang</td>
<td>Professor of Statistics and Actuarial Science, The University of Hong Kong</td>
</tr>
</tbody>
</table>

Supporting emails attached.
Dear Benjamin,

I fully agree with and support your suggestions to

1. A rating upgrade for 'Insurance: Mathematics and Economics' from ABDC 'A' to ABDC 'A**'.
2. A rating upgrade for the 'ASTIN Bulletin' from ABDC 'B' to ABDC 'A**'.
3. A rating upgrade for the 'North American Actuarial Journal' from ABDC 'B' to ABDC 'A'.
4. The introduction of a new academic journal - the 'European Actuarial Journal' on the ABDC list as ABDC 'B'.

and your arguments for this change.

For the European Actuarial Journal, to me it is at least of category A, but I understand that for a new journal this is not so easy to justify.

Best regards, Hansjoerg
From: Jun Cai [mailto:jcai@uwaterloo.ca]
Sent: Friday, 31 May 2013 3:31 AM
To: Jinxia Zhu
Subject: RE: URGENT support required - ABDC journal rankings review

Dear Jinxia,

I have read your document on a proposal to change the ranking of the 4 actuarial journals. I support your proposal.

Best,

Jun

Jun Cai, PhD
Professor
Department of Statistics and Actuarial Science
University of Waterloo
Waterloo, Ontario
Canada N2L 3G1

Tel: 519-888-4567, ext. 36990
Fax: 519-746-1875
http://www.stats.uwaterloo.ca/~jcai

From: Jinxia Zhu [jinxia.zhu@unsw.edu.au]
Sent: Thursday, May 30, 2013 12:56 AM
To: Jun Cai
Subject: URGENT support required - ABDC Journal rankings review

Dear Professor Cai,

I am Jinxia Zhu. I did my PhD at the University of Hong Kong under the supervision of Professor Hailei Yang. Now I am working in the school of Risk and Actuarial Studies at the University of New South Wales, Sydney.

The Australian Business Deans Committee (ABDC) is currently reviewing its ranking of journal quality. Our school is working on a proposal to change the ranking of 4 actuarial journals as part of the ABDC committee review of journal rankings. The submissions will be made by our school together with the Actuarial Centre/Department at the University of Melbourne and the Macquarie University, who will be adding letters of support to our submission. The submissions will propose the following:

A rating upgrade for ‘Insurance: Mathematics and Economics’ from ABDC ‘A’ to ABDC ‘A*’;
A rating upgrade for the ‘ASTIN Bulletin’ from ABDC ‘B’ to ABDC ‘A*’;
The introduction of a new academic journal - the ‘European Actuarial Journal’ on the ABDC list as ABDC ‘B’.

In the ABDC ranking:

- Actuarial journals are ranked in the ‘Finance’ field of research.
- The quality rating categories are:
  - A* (the top 5-7% of journals assigned to a particular field of research)
  - A (the next 15-25% of journals)
  - B (the next 35-40% journals)
  - C (the remaining quality journals).

In brief a ‘quality’ journal is one where the papers are peer reviewed.

Actuarial academics from the main 4 actuarial programs in Australia consider the Actuarial journals to be ranked in inferior categories compared with similar journals in the ‘Finance’ field of research. As such we propose the following changes:

1. A rating upgrade for ‘Insurance: Mathematics and Economics’ from ABDC ‘A’ to ABDC ‘A*’.
2. A rating upgrade for the ‘ASTIN Bulletin’ from ABDC ‘B’ to ABDC ‘A*’.
4. The introduction of a new academic journal - the ‘European Actuarial Journal’ on the ABDC list as ABDC ‘B’.

A document in support of these proposals prepared by our school is attached.

Best regards,
Jinxia

Dr. Jinxia Zhu | Lecturer | Risk & Actuarial Studies
Australian School of Business | The University of New South Wales
Address | UNSW Sydney 2052, Australia
Telephone: +61 (2) 9385 7385 | Fax Telephone: +61 (2) 9385 1883 | Web: www.asb.unsw.edu.au/riskandactuary
From: hans-ulrich.gerber@unil.ch
Date: 30 May 2013 4:33:37 PM AEST
To: Benjamin Avanzi <b.avanzi@unsw.edu.au>
Subject: Re: Fwd: URGENT assistance required - ABDC journal rankings review

Dear Benjamin,

I support this list. It is definitely more accurate than the the previous list.

Good luck! Hans

On jeudi 30/05/2013 at 07:10:22, Benjamin Avanzi a écrit:

*** Sorry - now with the attachment ***

Dear Hans

In Australia (and elsewhere) journal rankings are used to measure the performance of schools and individuals, as well as for hiring, promotion and tenure decisions.

The actuarial departments in Australia are all in a business school (faculty), and the relevant ranking is that of the Australian Business Deans Council (ABDC), which is currently reviewing its ranking of journal quality. Since its previous edition, Actuarial journals are ranked in the ‘Finance’ field of research. The quality rating categories are:
- A* (the top 5-7% of journals assigned to a particular field of research)
- A (the next 15-25% of journals)
- B (the next 35-40% journals)
- C (the remaining quality journals).

In brief a ‘quality’ journal is one where the papers are peer reviewed.

Actuarial academics from the main 4 actuarial programs in Australia consider some of the Actuarial journals to be ranked in inferior categories compared with similar journals in the ‘Finance’ field of research. As such they propose the following changes:
1. A rating upgrade for ‘Insurance: Mathematics and Economics’ from ABDC ‘A’ to ABDC ‘A*’.
2. A rating upgrade for the ‘ASTIN Bulletin’ from ABDC ‘B’ to ABDC ‘A*’.
4. The introduction of a new academic journal - the ‘European Actuarial Journal’ on the ABDC list as ABDC ‘B’.

A document in support of these proposals has been prepared by the School last year (attached).

Our submission will be strengthened by support from leading international scholars, such as you. If you agree to support the re-rankings outlines in the enumerated list above (1-4), could you please reply to this e-mail indicating your support?

Of course you are more than welcome to disagree.

In any case, thank you very much for your consideration!

Best wishes

Benjamin
Dear Mike,

I looked at the ranking proposal and I support the methodology and the outcomes. You may use this email to include me in the list of researchers who back this proposal.

Best,

Stephane

---

De : Michael Sherris [mailto:M.Sherris@unsw.edu.au]
Envoyé : jeudi 30 mai 2013 07:03
À : LOISEL STEPHANE
Objet : Journal rankings

Stephane

I hope you are well.

We are making a submission to revise the actuarial journal rankings for Australian Business Schools. Details are below.

Regards

- The Australian Business Deans Committee (ABDC) is currently reviewing its ranking of journal quality.
- Actuarial journals are ranked in the ‘Finance’ field of research.
- The quality rating categories are:
  - A* (the top 5-7% of journals assigned to a particular field of research)
  - A (the next 15-25% of journals)
  - B (the next 35-40% journals)
  - C (the remaining quality journals).
  In brief a ‘quality’ journal is one where the papers are peer reviewed.

- Actuarial academics from the main 4 actuarial programs in Australia consider the Actuarial journals to be ranked in inferior categories compared with similar journals in the ‘Finance’ field of research. As such they propose the following changes:


2. A rating upgrade for the 'ASTIN Bulletin' from ABDC 'B' to ABDC 'A*'.
3. A rating upgrade for the 'North American Actuarial Journal' from ABDC 'B' to ABDC 'A'.
4. The introduction of a new academic journal - the 'European Actuarial Journal' on the ABDC list as ABDC 'B'.

- Our submission will be strengthened by support from international scholars.
- A document in support of these proposals has been prepared by the UNSW Actuarial School (attached).

Michael Sherris | Professor of Actuarial Studies | CEPAR | AIPAR | Australian School of Business | Risk and 
Actuarial Studies | University of New South Wales | Sydney | NSW | 2052 | 61-2-9385 2333 | 61-2-9385 
1883 | msherris@unsw.edu.au | http://papers.ssrn.com/author=419919 |
From: Angus Macdonald [A.S.Macdonald@hw.ac.uk]
Sent: Thursday, 30 May 2013 8:32 PM
To: Anthony Asher
Cc: angus@ma.hw.ac.uk
Subject: Re: Journal rankings

Dear Anthony,

It is good to hear from you, I hope you are well too. I’m just back from a (very) brief visit to Australia in fact, mostly in Melbourne with a quick visit to Canberra, and by coincidence I did have a discussion with David Dickson and colleagues at UoM about the Australian journal ranking system. We have a similar problem in the UK for submissions to business management in the forthcoming REF; business schools have a ranked list of journals, no-one on the panel knows anything about actuarial journals so all are rated very low.

To address our question (and I hope this arrives in time) I strongly agree with your suggestions for ratings of actuarial journals. In particular I would highlight ASTIN Bulletin as A* based on its blend of good theory applied to real problems, and I:ME while more mathematical is certainly at the top level in the field it serves.

I hope this may be helpful.

Best wishes,

Angus

On 30/05/13 08:08, Anthony Asher wrote:

Dear Angus,

I hope you are well.

The actuarial departments in Australia are all in business faculties, and the relevant ranking of journals is that of the Australian Business Deans Council (ABDC), which is currently reviewing its rankings of journal quality. The quality rating categories are:
- A* (the top 5-7% of journals assigned to a particular field of research)
- A (the next 15-25% of journals)
- B (the next 35-40% journals)
- C (the remaining quality journals).

In brief a ‘quality’ journal is one where the papers are peer reviewed.

Actuarial academics from the main 4 actuarial programs in Australia consider some of the Actuarial Journals to be poorly ranked when compared with similar journals in the ‘Finance’ field of research. We have made various calculations as to impact and citations and believer that a good case can be made for the following changes:
2. A rating upgrade for the ‘ASTIN Bulletin’ from ‘B’ to ‘A**’.

The Annals of Actuarial Science are ranked as ‘A’ and the BAJ as ‘B’ and the South African and Australian journals as C.

Our submission will be strengthened by support from leading international scholars, such as you. If you agree that the re-rankings outlined above are reasonable, could you please reply to this e-mail indicating your support?

Warm regards

Anthony

Anthony Asher | Associate Professor | School of Risk & Actuarial Studies
Australian School of Business | University of New South Wales
Room 2059, Quadrangle Building | UNSW Sydney 2052
Telephone: +61 (2) 9385 7619 | Fax: +61 (2) 9385 1883
Mobile: 04 2400 3257 | Web: http://www.asb.unsw.edu.au/schools/Pages/AnthonyAsher.aspx
From: Shiu, Elias S [mailto:elias-shiu@uiowa.edu]
Sent: Thursday, 30 May 2013 9:25 PM
To: Benjamin Avanzi
Cc: Hazel Bateman; Michael Sherris
Subject: RE: URGENT assistance required - ABDC journal rankings review

I support 1, 2 and 4.
I cannot support 3 because I think the quality of the North American Actuarial Journal (NAAJ) has gone down and because the European Actuarial Journal is a better journal than NAAJ.

Elias Shiu
University of Iowa

From: Benjamin Avanzi [b.avanzi@unsw.edu.au]
Sent: Thursday, May 30, 2013 3:12 AM
To: Shiu, Elias S
Cc: Hazel Bateman; Michael Sherris
Subject: Fwd: URGENT assistance required - ABDC journal rankings review

Dear Elias

In Australia (and elsewhere) journal rankings are used to measure the performance of schools and individuals, as well as for hiring, promotion and tenure decisions.

The actuarial departments in Australia are all in a business school (faculty), and the relevant ranking is that of the Australian Business Deans Council (ABDC), which is currently reviewing its ranking of journal quality. Since its previous edition, Actuarial journals are ranked in the ‘Finance’ field of research. The quality rating categories are:
- A* (the top 5-7% of journals assigned to a particular field of research)
- A (the next 15-25% of journals)
- B (the next 35-45% journals)
- C (the remaining quality journals).
In brief a ‘quality’ journal is one where the papers are peer reviewed.

Actuarial academics from the main 4 actuarial programs in Australia consider some of the Actuarial journals to be ranked in inferior categories compared with similar journals in the ‘Finance’ field of research. As such they propose the following changes:
1. A rating upgrade for ‘Insurance: Mathematics and Economics’ from ABDC ‘A’ to ABDC ‘A*’.
2. A rating upgrade for the ‘ASTIN Bulletin’ from ABDC ‘B’ to ABDC ‘A*’.
4. The introduction of a new academic journal - the ‘European Actuarial Journal’ on the ABDC list as ABDC ‘B’.
A document in support of these proposals has been prepared by the School last year (attached).

Our submission will be strengthened by support from leading international scholars, such as you. If you agree to support the re-rankings outlines in the
enumerated list above (1-4), could you please reply to this e-mail indicating your support?

Best wishes
Benjamin

Dr Benjamin Avanzi | Senior Lecturer in Actuarial Studies | Honours and Postgraduate Research Coordinator School of Risk and Actuarial Studies | Australian School of Business | The University of New South Wales Quadrangle Building 2071 | UNSW Sydney 2052
From: Rob Thomson [rthomson@icon.co.za]
Sent: Thursday, 30 May 2013 5:43 PM
To: Anthony Asher
Subject: Re: Journal rankings

Dear Anthony,

I support your proposals. Part of the reason why actuarial journals are poorly rated is that they are at the top of the intellectual food chain. Actuaries need to synthesise current thinking in more fundamental disciplines into theoretical and practical methodology for the purposes of decision-making in our discipline. In this respect we are like engineers. Unlike engineers, however, we are a small discipline, and our work is therefore read by fewer scholars. Allowance should be made for this effect when considering the rating of our journals.

Regards
Robert Thomson
Professor Emeritus
School of Statistics and Actuarial Science
University of the Witwatersrand
Private Bag 3
WITS 2050
011 646-5332
rthomson@icon.co.za

----- Original Message -----
From: Anthony Asher
To: Rob Thomson
Sent: Thursday, May 30, 2013 9:10 AM
Subject: Journal rankings

Hi Rob,

The actuarial departments in Australia are all in business faculties, and the relevant ranking of journals is that of the Australian Business Deans Council (ABDC), which is currently reviewing its rankings of journal quality. The quality rating categories are:
- A* (the top 5-7% of journals assigned to a particular field of research)
- A (the next 15-25% of journals)
- B (the next 35-40% journals)
- C (the remaining quality journals).

In brief a ‘quality’ journal is one where the papers are peer reviewed.

Actuarial academics from the main 4 actuarial programs in Australia consider some of the Actuarial journals to be poorly ranked when compared with similar journals in the ‘Finance’ field of research. We have made various calculations as to impact and citations and believer that a good case can be made for the following changes:
1. A rating upgrade for ‘Insurance: Mathematics and Economics’ from ‘A’ to ‘A*’.
2. A rating upgrade for the ‘ASTIN Bulletin’ from ‘B’ to ‘A*’.

The Annals of Actuarial Science are ranked as ‘A’ and the BAI as ‘B’ and the South African and Australian journals as C.
Best
Anthony

Anthony Asher | Associate Professor | School of Risk & Actuarial Studies
Australian School of Business | University of New South Wales
Room 2059, Quadrangle Building | UNSW Sydney 2052
Telephone: +61 (2) 9385 7619 | Fax: +61 (2) 9385 1883
Mobile: 04 2400 3257 | Web: http://www.asb.unsw.edu.au/schools/Pages/AnthonyAsher.aspx
Associate Professor Hazel Bateman  
The University of New South Wales  
Australia  

Dear Professor Bateman,

Dr. Jinxia Zhu told me that the Australian Business Deans Committee (ABDC) is currently reviewing its ranking of journal quality and asked me to comment on the issue of ranking of actuarial journals.

Two of the top international, refereed actuarial journals are "Insurance: Mathematics and Economics" and "ASTIN Bulletin". Insurance: Mathematics and Economics (I:M&E) is published by Elsevier Science-North Holland since 1980. The main intellectual force behind I:M&E is Hans Gerber of Switzerland, Marc Goovaerts of Belgium and Elias Shiu of USA, the top three actuarial researchers in the world. ASTIN Bulletin, founded in 1958, is the research journal of the International Actuarial Association.

I noticed that both I:M&E and ASTIN are listed in the JCR, filtered by Statistics and Probability, and they do not have a high impact factor (I:M&E's impact factor is 1.288 which is not too bad). Perhaps I have an explanation for the impact factor. Actuarial papers are usually cited in other actuarial papers, which are normally published in actuarial journals. Since most actuarial journals are not reviewed by ISI, the impact factors of I:M&E and ASTIN are biased downward.

"North American Actuarial Journal" (NAAJ) is the flagship journal of the Society of Actuaries, which is the dominant actuarial organisation in the world. Its refereeing process is also rigorous. The author's identity is not revealed to the referees, and normally, three referee reports are solicited.

"European Actuarial journal" (EAJ) is a new journal published by Springer. EAJ is also rigorously reviewed and many well-known researchers in actuarial science publish papers there. Among its many distinguished contributors are Hans Gerber and Elias Shiu.

Given the reasons above, I support the following proposal:

1. A rating upgrade for 'Insurance: Mathematics and Economics' from ABDC 'A' to ABDC 'A*'.
2. A rating upgrade for the 'ASTIN Bulletin' from ABDC 'B' to ABDC 'A*'.
3. A rating upgrade for the 'North American Actuarial Journal' from ABDC 'B' to ABDC 'A'.
4. The introduction of a new academic journal - the 'European Actuarial Journal' on the ABDC list as ABDC 'B'.

Best Regards,

Haillang Yang  
Professor  
Department of Statistics and Actuarial Science The University of Hong Kong
### Appendix C4: Comparisons with existing rated journals (ASTIN Bulletin) &
### Appendix C6: Impact Factors (ASTIN Bulletin)

Citation analysis of selected actuarial and other FoR 1502 Journals

<table>
<thead>
<tr>
<th>Actuarial Discipline Journals</th>
<th>Scopus</th>
<th>SSCI / SCI</th>
<th>PoP year of publication 2006-2011</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FOR ABDC</td>
<td>SJR 2008</td>
<td>2011</td>
</tr>
<tr>
<td>Current journals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Review of Financial Studies</td>
<td>1502 A*</td>
<td>0.085</td>
<td>5.271</td>
</tr>
<tr>
<td>Journal of Finance</td>
<td>1502 A*</td>
<td>0.094</td>
<td>7.089</td>
</tr>
<tr>
<td>Journal of Financial Economics</td>
<td>1502 A*</td>
<td>0.084</td>
<td>5.949</td>
</tr>
<tr>
<td>Journal of Banking and Finance</td>
<td>1502 A*</td>
<td>0.053</td>
<td>3.792</td>
</tr>
<tr>
<td>Journal of Financial And Quantitative Analysis</td>
<td>1502 A*</td>
<td>0.050</td>
<td>2.435</td>
</tr>
<tr>
<td>Journal of Corporate Finance</td>
<td>1502 A*</td>
<td>0.038</td>
<td>2.246</td>
</tr>
<tr>
<td>Insurance: Mathematics and Economics</td>
<td>1502 A</td>
<td>0.048</td>
<td>2.466</td>
</tr>
<tr>
<td>ASTIN Bulletin: Journal of the International Actuarial Association</td>
<td>1503 A* B</td>
<td>0.033</td>
<td>1.344</td>
</tr>
<tr>
<td>Mathematical Finance</td>
<td>1402 A</td>
<td>0.048</td>
<td>3.182</td>
</tr>
<tr>
<td>Finance and Stochastics</td>
<td>1502 A</td>
<td>0.046</td>
<td>2.610</td>
</tr>
<tr>
<td>Accounting and Finance</td>
<td>1501 A</td>
<td>0.029</td>
<td>0.941</td>
</tr>
<tr>
<td>International Review of Finance</td>
<td>1502 A n/a</td>
<td>0.029</td>
<td>0.941</td>
</tr>
<tr>
<td>North American Actuarial Journal</td>
<td>1502 A* B</td>
<td>0.038</td>
<td>1.307</td>
</tr>
</tbody>
</table>

European Journal of Finance
Applied Mathematical Finance
Quarterly Review of Economics and Finance
European Actuarial Journal

| European Journal of Finance | 1502 B  | 0.033 | 0.656 | 0.488 | n/a   | 17.000 | 28  | 314.00   | 5.56  |
| Applied Mathematical Finance | 1502 B  | 0.038 | 1.278 | n/a   | n/a   | 17.000 | 26  | 210.55   | 8.05  |
| Quarterly Review of Economics and Finance | 1502 B  | 0.030 | 0.765 | n/a   | n/a   | 19.000 | 29  | 400.51   | 5.70  |
| European Actuarial Journal | 1502 n/a | n/a   | n/a   | n/a   | n/a   | 4.000  | 5   | 15.50    | 1.15  |
Appendix C7: Other supporting documentation (ASTIN Bulletin)


b. The document 'Actuarial Journals in the ABDC2010 journal quality list' prepared by the School of Risk and Actuarial Studies, UNSW to support amendments to the ABDC list for internal performance review purposes.
A Citation Analysis of Risk, Insurance, and Actuarial Research: 2001 Through 2005

L. Lee Colquitt
David W. Sommer
William L. Ferguson

Abstract
The bibliographies of 17 risk journals were evaluated to determine the relative influence of these risk journals on risk, insurance, and actuarial research published during the years 2001 through 2005. Tables are provided that show the frequency with which each of these journals cites itself and the other sample journals. The journals are ranked, within two groups (risk and insurance group and actuarial group), based on their total influence (total citations including and excluding self-citations) and their per article influence (per article citations including and excluding self-citations). Finally, the most frequently cited articles from each risk journal are reported.

Introduction
Given the central importance of scholarly journals to the growth, development, and legitimacy of any academic discipline, it is critical that relevant parties understand the relative quality of journals within a discipline. Researchers need objective information on journal quality in making decisions regarding where to submit their work for possible publication. Those involved with making decisions regarding a faculty member's tenure, promotion, or merit pay need to understand relative journal quality in the faculty member's discipline in order to properly evaluate his or her research productivity. Since such decisions often involve scholars from disciplines other than that of the person being evaluated, objective analysis of journal quality can be invaluable in helping a faculty member document the quality of his or her publication outlets. Journal editors can also benefit from objective information regarding the quality of their journal relative to other journals in the field, potentially using this information to shape future editorial decisions. Finally, libraries and other institutions needing to make decisions about which journals to purchase in a particular discipline, given limited resources, also benefit from an understanding of relative journal quality. Ferguson, Dorfman, and Ferguson (2005) provide greater detail and

1. Lee Colquitt is in the Department of Finance, Auburn University, David W. Sommer is in the Bill Greehey School of Business, St. Mary's University, William L. Ferguson is in the B. L. Moody College of Business, University of Louisiana. The authors can be contacted via e-mail: colquitt@business.auburn.edu, dsommer@stmarytx.edu, and ferguson@louisiana.edu.
discussion of issues such as these, as well as other theoretical and practical problems in determining scholarly journal quality.

Considering such potential import to numerous stakeholders, it is not surprising that studies in various academic disciplines have evaluated the quality of journals. Over the years, for example, numerous such studies have been published in the finance discipline (see Mabry and Sharplin, 1985; Alexander and Mabry, 1994; Zivney and Reichenstein, 1994; McNulty and Boekeloo, 1999; Borokhovich, Bricker, and Simkins, 2000; Chung, Cox, and Mitchell, 2001; Pinkowitz, 2002; Olsheten, Theocharakis, and Trivlos, 2005). A number of journal quality studies have also been performed in the insurance field. Outreville and Malouin (1985) evaluate journal quality based on the opinions of American Risk and Insurance Association members. McNamara and Kolbe (1996) base their study on a survey of business school deans. Baur, Zivney, and Wells (1996) analyze journal subscription practices at universities. Hollman and Zietz (1998) analyze citations appearing in the Journal of Insurance Issues (JII). Ferguson, Dorfman, and Ferguson (2005) survey risk and insurance academics to assess journal quality categorized by perceived utility and examined individual, institutional, and journal-related factors influencing expert opinion of journal quality.

Finally, Colquitt (1997, 2003) evaluates the impact that various insurance and actuarial journals and articles have had on research in the discipline by examining citations to leading insurance and actuarial journals found in a sample of insurance, actuarial, and finance journals. Colquitt (1997) analyzes citations during the period 1991 through 1995, while Colquitt (2003) analyzes citations appearing during the years 1996 through 2000. While citation analysis is common in other disciplines and generally considered to be the most comprehensive method of evaluating the quality of academic journals (see footnote 1 of Colquitt, 2003), the Colquitt studies are the only extensive citation analyses in the insurance and actuarial fields. Presumably, a major reason for this is that many insurance and actuarial journals are not indexed by the Social Science Citation Index (SSCI), making data collection much more cumbersome.1

The purpose of this article is to update the studies of Colquitt (1997, 2003) using citation data from the years 2001 through 2005. Periodic updates of citation studies are important because of the potential for changes in the relative quality of journals (as measured by citations) over time. In addition, the entrance of new journals in the discipline necessitates updated studies to evaluate the impact of these newer journals. For example, both the Risk Management and Insurance Review (RMIR) and the North American Actuarial Journal (NAAJ) commenced publication during the sample period of the Colquitt (2003) study. An updated study provides a more accurate picture of the relative impact of these journals now that they are more established. This study also includes the Proceedings of the Casualty Actuarial Society (PCAS), which was not included in the previous study.

1 Ferguson, Dorfman, and Ferguson (2005) provide a detailed discussion of the strengths and limitations of the SSCI with respect to risk and insurance research in particular, as well as citation studies in general.
METHODOLOGY AND DATA

As in Colquitt (2003), the analysis is focused on citations to articles published in 17 risk, insurance, and actuarial journals (hereafter, referred to as the risk journals) from these same journals during the years 2001 through 2005. As in the previous Colquitt studies, 16 finance journals also were reviewed for citation to the sample risk journals. The inclusion of citations from finance journals to risk journals seems warranted for purposes of completeness, given the close relationship of the disciplines; however, the impact is not very significant, and results would not likely change meaningfully with the inclusion of additional finance journals. In the 1997 and 2003 Colquitt studies, only 3.8 percent and 3.6 percent, respectively, of the citations to the risk journals were found in the finance journals. See the Appendix for a complete list of all journals included in the study.

Citation data were gathered by looking at the references listed in each article published during 2001 through 2005 in the 17 risk journals and recording information about all citations to the 17 risk journals. Citations to working papers were not included, even if the papers were subsequently published in a risk journal. Data gathered for each citation include the journal name, author name(s), journal edition, and page numbers of the cited article, as well as the journal name of the citing article. The data only include citations from feature articles, invited articles, shorter articles, and notes and communications regarding research. Opinion pieces and regular columns were not reviewed for citations.

As in Colquitt (2003), in recognition of the distinction between actuarial journals and other insurance-related journals, the 17 risk journals are further subcategorized as either risk and insurance journals or actuarial journals for purposes of journal rankings. The journals included in each category are listed in the Appendix.

The citations recorded are used to evaluate the impact that each sample journal has on the risk, insurance, and actuarial literature over the years 2001 through 2005. Each journal’s influence is compared to the other journals in its subcategory. This influence is measured in the aggregate (i.e., total citations) and on a per article basis (i.e., citations per article published). Also, the data are used to determine which articles published in the sample journals have been the most influential between the years 2001 through 2005.

DISCUSSION OF RESULTS

Before proceeding with the detailed citation analysis, it is important to recognize that citation studies such as this do not primarily reflect the quality or impact of articles published during the sample period. In fact, although the sample period of this study is 2001 through 2005, almost 80 percent of the cited articles during this period were published prior to 2001, with just over 50 percent of all citations being to articles published between 1991 and 1997. Thus, the results of this study, while as up to date as possible, are unlikely to fully reflect very recent changes in the quality or impact of journals. The impact of this citation time lag phenomenon also is important in evaluating the impact of young journals, which are obviously at an inherent disadvantage in citation studies relative to their more established counterparts, regardless of quality.
Another interesting finding, when comparing this study with the previous two Colquitt studies, is the percentage of citations to articles published over 15 years prior to the latest sample year (i.e., citations to articles published before 1991 for this study). In the first and second Colquitt studies, the percentages of citations to articles 15 years prior to the latest sample year were 18.19 percent and 20.72 percent, respectively. In this study, 22.03 percent of the total citations are to articles published before 1991.

Journal Results

Table 1 and Table 2 contain a summary of all the citation data collected. Table 1 provides actual citation data and Table 2 provides this information on a normalized basis (per 1,000 citations). For each of the risk journals, Table 1 provides the number of citations received by the journal during the 2001 through 2005 sample period from the journal itself, from the other 16 risk journals and from the sample finance journals.

The left-hand column of Table 1 lists each of the source journals. Then, across each row is the number of times the source journal cites each of the sample journals. So, for example, during the sample period, the Astin Bulletin (AB) cited itself 220 times, the British Actuarial Journal (BAJ) 25 times, the Geneva Papers on Risk and Insurance Issues and Practice (GPIP) twice, and so on. The far right-hand column indicates the total citations to any source found in the journal during the years 2001 through 2005, and the column just before that indicates how many cites there were during that time to sources other than the sample risk and insurance journals. The finance journals are combined into one entry labeled FIN.

Each row of Table 1, except for the row representing the finance journals, contains two highlighted citation numbers, indicating the two sample journals that are most frequently cited by the corresponding source journal. One clear finding, consistent with previous studies, is that the sample journals tend to have high rates of self-citation. In 11 out of 17 cases, the sample source journal cites itself more times than it cites any other sample journal. The journals that do not cite themselves with the greatest frequency are Geneva Papers on Risk and Insurance Theory (GPT), the Journal of Actuarial Practice (JAP), the IIJ, the Journal of Insurance Regulation (JIR), RMIR, and the Scandinavian Actuarial Journal (SAJ). Among these, the IIJ, the JIR, and RMIR all cited the Journal of Risk and Insurance (LRI) with the greatest frequency. Both the JAP and the SAJ cited Insurance: Mathematics and Economics (IME) with the greatest frequency, and GPT cited the Journal of Risk and Uncertainty (JRU) with the greatest frequency. The only journal that does not have itself as either the first or second most frequently cited journal is the JAP, which has IME and the AB as the two most frequently cited journals.

2 The normalization process is designed to control for variation in the total number of citations that appear in each journal by providing a measure of relative frequency with which journals cite each other. For Table 2, we multiply each number in the body of Table 1 by the fraction 1,000/(Overall Total), where Overall Total can be found in the far right column of Table 1. This yields the number of citations from Journal X (left column) to Journal Y (top row) per 1,000 total cites appearing in Journal X.
<table>
<thead>
<tr>
<th>Citations to the Sample Risk, Insurance, and Actuarial Journals</th>
<th>Total Outside the Sample Journals</th>
<th>Overall Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB</td>
<td>BAJ</td>
<td>BQ</td>
</tr>
<tr>
<td>----------------</td>
<td>-------</td>
<td>------</td>
</tr>
<tr>
<td>220</td>
<td>25</td>
<td>0</td>
</tr>
<tr>
<td>38</td>
<td>294</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>30</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>290</td>
<td>61</td>
<td>0</td>
</tr>
<tr>
<td>31</td>
<td>19</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>117</td>
<td>61</td>
<td>3</td>
</tr>
<tr>
<td>18</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>123</td>
<td>34</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>875</td>
<td>528</td>
</tr>
</tbody>
</table>

Notes: AB = Aslin Bulletin; BAJ = British Actuarial Journal; BQ = Benefits Quarterly; CPCU = CPCU Journal; FIN = sample finance journals; GPIP = Geneva Papers on Risk and Insurance Issues and Practice; GPT = Geneva Papers on Risk and Insurance Theory; IME = Insurance: Mathematics and Economics; JAP = Journal of Actuarial Practice; IAP = Journal of Financial Services Professionals; IME = Journal of Insurance Issues; JIR = Journal of Insurance Regulation; JII = Journal of Risk and Insurance; JIRU = Journal of Risk and Uncertainty; NAAJ = North American Actuarial Journal; PCAS = Proceedings of the Casualty Actuarial Society; RMIR = Risk Management and Insurance Review; SAJ = Scandinavian Actuarial Journal; Total Outside the Sample Journals = the number of articles in the journal that are to articles not published in one of the 17 sample risk, insurance, or actuarial journals; self-citation rate = the percentage of a journal's = citations attributable to its own articles. Citations to the Geneva Papers prior to 1990 (the year that the Geneva Papers were split into two journals, the GPIP and the GPT) are attributed to the GPIP and the GPT in the proportion that the GPIP and the GPT received their own citations from that journal during 1990 and beyond.
### Table 2
Normalized Journal Citations

<table>
<thead>
<tr>
<th>Citations From</th>
<th>AB</th>
<th>BAJ</th>
<th>BQ</th>
<th>CPCU</th>
<th>GPIP</th>
<th>GPT</th>
<th>IME</th>
<th>JAP</th>
<th>JFSP</th>
<th>JII</th>
<th>JIR</th>
<th>JRI</th>
<th>JRU</th>
<th>NAAJ</th>
<th>PCAS</th>
<th>RMIR</th>
<th>SAJ</th>
<th>Total Outside the Sample Journals</th>
<th>Overall Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB</td>
<td>103</td>
<td>12</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>70</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>11</td>
<td>0</td>
<td>22</td>
<td>0</td>
<td>34</td>
<td>736</td>
<td>1,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BAJ</td>
<td>18</td>
<td>138</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>32</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>12</td>
<td>4</td>
<td>0</td>
<td>7</td>
<td>783</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>BQ</td>
<td>0</td>
<td>0</td>
<td>24</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>965</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>CPCU</td>
<td>0</td>
<td>0</td>
<td>36</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>8</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>940</td>
<td>1,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GPIP</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>26</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>10</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>949</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>GPT</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>32</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>24</td>
<td>34</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>5</td>
<td>887</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>IME</td>
<td>49</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>138</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>12</td>
<td>1</td>
<td>28</td>
<td>2</td>
<td>0</td>
<td>34</td>
<td>721</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>JAP</td>
<td>46</td>
<td>28</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>76</td>
<td>18</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>22</td>
<td>0</td>
<td>27</td>
<td>12</td>
<td>0</td>
<td>22</td>
<td>747</td>
<td>1,000</td>
</tr>
<tr>
<td>JFSP</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>53</td>
<td>3</td>
<td>5</td>
<td>6</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>924</td>
<td>1,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>JII</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>6</td>
<td>1</td>
<td>18</td>
<td>12</td>
<td>99</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>848</td>
<td>1,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>JIR</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>8</td>
<td>18</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>11</td>
<td>98</td>
<td>12</td>
<td>7</td>
<td>1</td>
<td>2</td>
<td>818</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>JRU</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>106</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>886</td>
<td>1,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NAAJ</td>
<td>28</td>
<td>15</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>60</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>17</td>
<td>0</td>
<td>65</td>
<td>8</td>
<td>0</td>
<td>783</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>PCAS</td>
<td>38</td>
<td>29</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>4</td>
<td>17</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>21</td>
<td>48</td>
<td>0</td>
<td>8</td>
<td>181</td>
<td>0</td>
<td>628</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>RMIR</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>8</td>
<td>101</td>
<td>12</td>
<td>8</td>
<td>1</td>
<td>13</td>
<td>830</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>SAJ</td>
<td>64</td>
<td>18</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>118</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td>25</td>
<td>4</td>
<td>0</td>
<td>84</td>
<td>678</td>
<td>1,000</td>
<td></td>
</tr>
</tbody>
</table>

Avg. over journals: 21.06
Avg. with no self-citations: 15.94
Self-citation index: 0.65

The results of Table 1 also reinforce the logic of separating the risk journals into the subcategories of risk and insurance journals and actuarial journals. For all but one risk and insurance (actuarial) source journal, the top three most cited sample journals are also in the risk and insurance (actuarial) subcategory. The only journal for which this is not true is Benefits Quarterly (BQ) (a risk and insurance journal), which has the NAAJ (an actuarial journal) as its third most frequently cited journal. Overall, of the 2,479 total nonfinance citations to the risk and insurance journals, 88.22 percent are from risk and insurance journals, while only 11.78 percent are from the actuarial journals. Similarly, of the 4,500 nonfinance citations to the actuarial journals, 94.27 percent are from actuarial journals and only 5.73 percent are from risk and insurance journals. It is also clear that finance journals are much more likely to cite the risk and insurance journals than the actuarial journals. Of the total finance journal cites to the risk journals, 91.71 percent are to journals in the risk and insurance subcategory.

Table 1 provides clear evidence that the JRI continues to be the most influential journal among the risk and insurance journals. The JRI was either the most frequently cited or second most frequently cited sample journal by eight of the 10 risk and insurance journals. Only the CPCU Journal (CPCU) and GPT cited two other journals with greater frequency than the JRI. The JRI also was the most frequently cited risk and insurance journal by each of the seven sample actuarial journals. Also, as was the case in the two previous Colquitt studies, the JRI was the only journal to have been cited at least once by each of the 17 sample journals.

Consistent with the most recent Colquitt (2003) study, IME is the most frequently cited of all of the actuarial journals. As in the previous study, IME was either the first or second most frequently cited journal by all of the sample actuarial journals. The only other journal to be either the first or second most frequently cited actuarial journal more than once is the AB, which in three cases was either the first or second most frequently cited actuarial journal (by the AB, IME, and the JAP).

Table 1 and Table 2 also provide each journal’s self-citation rate and self-citation index, respectively. The higher the self-citation index, the higher a journal’s frequency of self-citations as compared to the frequency with which it was cited by the other sample journals. Presumably, a more influential journal will have a lower self-citation index. As noted in Colquitt (2003), as it is entirely possible that the cause for a high self-citation index might be that the journal publishes research that is of a specialized nature, the type not commonly found in the other sample journals. For example, while the JRIU has a reputation as being an outstanding journal, over 70 percent of the citations to the JRIU found in the sample journals were JRIU self-citations. The high relative frequency of self-citations resulted in a self-citation index of 2.29 (seventh out

---

3 The self-citation rates and indices were calculated as in the previous two Colquitt studies (1997, 2003). The self-citation rate is the number of self-citations from a journal divided by the total number of citations found in that journal. The self-citation index is the self-citation rate × 100/normalized average citation rate excluding self-citations (per thousand citations).

4 It should be emphasized again that this study is only looking at citations from the 17 sample risk journals and a collection of other finance journals. The JRIU, in particular, receives a large number of citations from journals outside the insurance and actuarial fields. For example, according to the ISI Web of Knowledge Journal Citation Reports website, the five journals that
of 10 risk and insurance journals). The strong reputation that the JRUI enjoys is due primarily to its influence on research published in the JRUI and other journals not considered to be in the risk and insurance discipline.

As seen in Table 2, the JRUI's self-citation index of .34 is by far the lowest among the risk and insurance group. The other risk and insurance journals with self-citation indices lower than 2 are the JIR (1.37), the GPIP (1.67), the JII (1.72), the GPT (1.74), and RMIR (1.83). Not surprisingly, the three highest self-citation indices in the risk and insurance group were BQ (3.55), the CPCU (3.57), and the Journal of Financial Services Professionals (JFSP) (5.97); the research published in these journals is more narrowly focused on issues related to employee benefits, property-casualty insurance, and financial planning, respectively. As was the case in the previous study, IME's self-citation index of .54 is the lowest among all of the actuarial journals. However, actuarial journals with self-citations indices below 2 include the AB (.65), the NAAJ (1.72), the SAF (1.93), and the BAJ (1.88).

Table 3 provides a different perspective on the data. It separates the sample journals into the two subcategories of risk and insurance journals and actuarial journals, and ranks journals within each subgroup by the total number of citations from all journals in the study. In addition to the rankings based on absolute numbers of citations received, an adjusted rank is also provided, which is based on the number of non-self-citations received. Among the risk and insurance journals, the JRUI is the most frequently cited journal, with 1,222 total citations and 815 non-self-citations. The total number of citations was almost twice that of the JRUI's 631 total citations and its number of non-self-citations was almost five times that of the JRUI's. Below the JRUI and JRUI on the list of total citations are the JIR (222), the GPIP (165), the GPT (135), the JFSP (75), the CPCU (71), the JII (56), BQ (47), and RMIR (42). This list is similar to the previous Colquitt (2003) study, with the exception of the shifting of spots between the CPCU, the GPT, and the JFSP. When looking only at non-self-citations, the JRUI and the JRUI were followed by the JIR (124), the GPT (104), the GPIP (50), the JII (36), the CPCU (26), RMIR (25), the JFSP (24), and BQ (17).

Among the actuarial journals, IME was the most frequently cited journal in the group. The 1,669 IME citations are approximately twice the number of the next journal, the AB, with 875 citations. Following IME and the AB are the NAAJ (634), the SAF (586), the BAJ (528), the PCAS (185), and the JAP (41). In addition, IME also has approximately twice the number of citations than it did in the most recent Colquitt (2003) study (840) and over four-and-a-half times as many as in the first Colquitt (1997) study (360). Interestingly, all of the actuarial journals had a significant increase in total citations from the previous study, with the lowest percentage increase being over 30 percent. Finally, when looking at non-self-citations only, the list remains almost exactly the same as that of the total citations, with the exception of the NAAJ and the SAF swapping places.

---

cited the JRUI most frequently in 2004, aside from the JRUI itself, were Organizational Behavior and Human Decision Processes, Journal of Economic Psychology, Journal of Transport Economics and Policy, Vanderbilt Law Review, and Journal of Mathematical Psychology. Since the aim of this study is to focus on citations from the journals most relevant to insurance and actuarial research, citations from journals in fields other than insurance, actuarial science, or finance are not included.
### Table 3
Journals Ranked by Total Number of Citations by the Sample Journals During the Years 2001 through 2005

<table>
<thead>
<tr>
<th>Rank</th>
<th>Risk and Insurance Journals</th>
<th>Total Citations</th>
<th>Self-Citations</th>
<th>Non-Self-Citations</th>
<th>Adj Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><em>Journal of Risk and Insurance</em></td>
<td>1222</td>
<td>407</td>
<td>815</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td><em>Journal of Risk and Uncertainty</em></td>
<td>631</td>
<td>448</td>
<td>183</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td><em>Journal of Insurance Regulation</em></td>
<td>222</td>
<td>98</td>
<td>124</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td><em>Geneva Papers on Risk and Insurance Issues and Practice</em></td>
<td>165</td>
<td>115</td>
<td>50</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td><em>Geneva Papers on Risk and Insurance Theory</em></td>
<td>135</td>
<td>31</td>
<td>104</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td><em>Journal of Financial Services Professionals</em></td>
<td>75</td>
<td>51</td>
<td>24</td>
<td>9</td>
</tr>
<tr>
<td>7</td>
<td><em>CPCU Journal</em></td>
<td>71</td>
<td>45</td>
<td>26</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td><em>Journal of Insurance Issues</em></td>
<td>56</td>
<td>20</td>
<td>36</td>
<td>6</td>
</tr>
<tr>
<td>9</td>
<td><em>Benefits Quarterly</em></td>
<td>47</td>
<td>30</td>
<td>17</td>
<td>10</td>
</tr>
<tr>
<td>10</td>
<td><em>Risk Management and Insurance Review</em></td>
<td>42</td>
<td>17</td>
<td>25</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rank</th>
<th>Actuarial Journals</th>
<th>Total Citations</th>
<th>Self-Citations</th>
<th>Non-Self-Citations</th>
<th>Adj Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><em>Insurance: Mathematics and Economics</em></td>
<td>1669</td>
<td>815</td>
<td>854</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td><em>Astin Bulletin</em></td>
<td>875</td>
<td>220</td>
<td>655</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td><em>North American Actuarial Journal</em></td>
<td>684</td>
<td>269</td>
<td>365</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td><em>Scandinavian Actuarial Journal</em></td>
<td>586</td>
<td>162</td>
<td>424</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td><em>British Actuarial Journal</em></td>
<td>528</td>
<td>294</td>
<td>234</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td><em>Proceedings of the Casualty Actuarial Society</em></td>
<td>185</td>
<td>86</td>
<td>99</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td><em>Journal of Actuarial Practice</em></td>
<td>41</td>
<td>12</td>
<td>29</td>
<td>7</td>
</tr>
</tbody>
</table>

*Ranking based upon total number of non-self-citations. The rankings do not control for journal age, putting younger journals at a disadvantage. For example, about 45 percent of the total citations in the study are to articles published prior to 1997, when RMIR and the NAII did not even exist.*

Perhaps the most remarkable finding regarding the actuarial journal ranking is the rather quick rise in the influence of the *NAII*. The *NAII* was only 8 years old in 2005 (the last year of data collection) and yet it is already the third most frequently cited (out of seven) actuarial journal in the sample. This phenomenon also was noted in the Ferguson, Dorfman, and Ferguson (2005) survey, as the *NAII* was determined to be a primary ("frequently useful") journal on a write-in basis. Also, just over 45 percent of all citations recorded are to articles published before the *NAII* began in 1997. As a result, in future years, the *NAII*'s measured influence will likely increase.

In addition, the *NAII*’s third-place ranking is two spots higher than the last Colquitt (2003) study, passing both the *SAJ* and the *BAJ* in the process. Finally, the increase in total citations for the *NAII* was over 450 percent of what it was in the previous study (from 137 total citations to 634), which is explained largely by the fact that the *NAII* commenced publication 1 year into the previous study’s sample period.

The rankings in Table 3 give every citation to a sample journal equal weight, regardless of the source journal. For example, a citation from the *JRI* is given equal weight to a citation from the CPCU. Depending on their purpose and perspective, readers...
may desire to apply different weights to citations from different source journals. For example, if an institution values citations from practitioner-oriented journals only half as much as citations from academic journals, such weighting could be applied to the detailed citation data provided in Table 2 to produce new rankings.

As noted in the previous studies, the total citation count measures the overall impact of a journal's research, but it does not take into account the number of articles published by each journal. Obviously, a journal that publishes more articles would have more opportunity to be cited than a journal with fewer articles published. So, while one journal may be more influential overall than another, its influence on a per article basis is not known without controlling in some way for the number of articles published by the journal. Table 4 measures the relative impact of the articles in each

**Table 4**

<table>
<thead>
<tr>
<th>Risk and Insurance Journals</th>
<th>All Citations</th>
<th>No Self-Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Insurance Impact Factor</td>
<td>Rank</td>
</tr>
<tr>
<td>Journal of Risk and Insurance</td>
<td>1.9564</td>
<td>1</td>
</tr>
<tr>
<td>Journal of Risk and Uncertainty</td>
<td>1.1328</td>
<td>2</td>
</tr>
<tr>
<td>Journal of Insurance Regulation</td>
<td>0.7914</td>
<td>3</td>
</tr>
<tr>
<td>Geneva Papers on Risk and Insurance Theory</td>
<td>0.6250</td>
<td>4</td>
</tr>
<tr>
<td>Journal of Insurance Issues</td>
<td>0.5111</td>
<td>5</td>
</tr>
<tr>
<td>Geneva Papers on Risk and Insurance Issues and Practice</td>
<td>0.3243</td>
<td>6</td>
</tr>
<tr>
<td>Risk Management and Insurance Review</td>
<td>0.3118</td>
<td>7</td>
</tr>
<tr>
<td>CPCU Journal</td>
<td>0.2463</td>
<td>8</td>
</tr>
<tr>
<td>Journal of Financial Services Professionals</td>
<td>0.1779</td>
<td>9</td>
</tr>
<tr>
<td>Benefits Quarterly</td>
<td>0.1288</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Actuarial Journals</th>
<th>All Citations</th>
<th>No Self-Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Insurance Impact Factor</td>
<td>Rank</td>
</tr>
<tr>
<td>Insurance: Mathematics and Economics</td>
<td>2.6102</td>
<td>1</td>
</tr>
<tr>
<td>North American Actuarial Journal</td>
<td>2.3643</td>
<td>2</td>
</tr>
<tr>
<td>Astin Bulletin</td>
<td>2.0526</td>
<td>3</td>
</tr>
<tr>
<td>Scandinavian Actuarial Journal</td>
<td>1.6275</td>
<td>4</td>
</tr>
<tr>
<td>British Actuarial Journal</td>
<td>1.1107</td>
<td>5</td>
</tr>
<tr>
<td>Proceedings of the Casualty Actuarial Society</td>
<td>0.8351</td>
<td>6</td>
</tr>
<tr>
<td>Journal of Actuarial Practice</td>
<td>0.3864</td>
<td>7</td>
</tr>
</tbody>
</table>

Notes: Impact Factor = citations to a journal's = articles published in a certain period divided by the number of citable articles published during the same period; Adj Insurance Impact Factor = the insurance impact factor calculated using only the non-self-citations. The period used is 1996 through 2005.
of the sample journals by measuring each journal’s insurance impact factor (IIF) and adjusted insurance impact factor (AIIF). Both the IIF and the AIIF were calculated as in the previous two Colquitt (1997, 2003) studies. Essentially, the IIF measures the average number of citations to an article published in the journal during the last 10 years. Given that only the influence of articles published in the most recent 10-year period are evaluated, these measures also remove much of the disadvantage that newer journals might experience when looking at total citation counts.

As was the case with the risk and insurance journals in the first two studies, the JRI and the JRU were the first and second most influential journals on a per article basis, with IIFs of 1.9564 and 1.1328, respectively. This means that the average JRI (JRU) article published during the years 1996 through 2005 is cited 1.9564 (1.1328) times by the sample journals during the period 2001 through 2005. Following these two journals are the JIR (2.7914), the GPT (2.6290), the JII (3.1111), the GPV (3.2433), RMIR (3.3118), the CPCU (2.4693), the JFSF (1.7779), and EQ (1.288). As for the AIIF, the risk and insurance journal rankings are much like what they were in the previous Colquitt (2003) study, with no journal changing more than one position. The JRU and the CPCU both drop one spot and the GPV and the JII climb one spot from the previous study to the current one. The most dramatic difference between one journal’s IIF and AIIF is with the JRII. When removing the self-citations, the JRU falls from its second place ranking in per article influence among the risk and insurance journals to fifth place.

Table 4 shows a considerably higher number of average citations per article for the actuarial group of journals. The actuarial journal with the highest IIF is IME (2.6102), followed by the NAAJ (2.3643), the AB (2.0526), the SAJ (1.6275), the BAJ (1.1107), the PCAS (8.351), and the JAP (3.864). When looking at the per article impact using only non-self-citations, the order changes somewhat, with IME (1.5790) still leading the list, followed by the AB (1.5052), the NAAJ (1.3643), the SAJ (1.3732), the PCAS (4.639), the BAJ (3.852), and the JAP (2.614). The top three actuarial journals (IME, the NAAJ, and the AB) all had higher IIFs and AIIFs than did the highest risk and insurance journal (the JRI). This result is noticeably different than what was found in the previous Colquitt (2003) study, when the JRI’s IIF led all journals of both groups by a considerable distance. The other significant difference in the current study and the previous Colquitt (2003) study is the increase in the IIFs and AIIFs of both IME and the NAAJ. The increases in the IIF of IME and the NAAJ from the previous study
## Table 5

Risk and Insurance Journal Ranking Comparisons Over Time

<table>
<thead>
<tr>
<th>Journal/Study</th>
<th>Total Citations</th>
<th>Total Non-Self-Citations</th>
<th>Insurance Impact Factor</th>
<th>Adjusted Insurance Impact Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>JRI</td>
<td>1 1 1</td>
<td>1 1 1</td>
<td>2 1 1</td>
<td>1 1 1</td>
</tr>
<tr>
<td>JRII</td>
<td>2 2 2</td>
<td>5 3 2</td>
<td>1 2 2</td>
<td>2 4 5</td>
</tr>
<tr>
<td>JIR</td>
<td>4 3 3</td>
<td>4 2 3</td>
<td>4 4 3</td>
<td>3 3 3</td>
</tr>
<tr>
<td>GPIP&lt;sup&gt;a&lt;/sup&gt;</td>
<td>3 4 4</td>
<td>3 6 5</td>
<td>3 8 6</td>
<td>5 8 7</td>
</tr>
<tr>
<td>GPT&lt;sup&gt;a&lt;/sup&gt;</td>
<td>3 6 5</td>
<td>3 4 4</td>
<td>3 3 4</td>
<td>5 2 2</td>
</tr>
<tr>
<td>IFSP</td>
<td>6 7 6</td>
<td>7 8 9</td>
<td>7 9 9</td>
<td>7 9 9</td>
</tr>
<tr>
<td>CPCU</td>
<td>5 5 7</td>
<td>2 5 7</td>
<td>6 6 8</td>
<td>4 7 8</td>
</tr>
<tr>
<td>III</td>
<td>7 8 8</td>
<td>6 7 6</td>
<td>5 5 5</td>
<td>6 5 4</td>
</tr>
<tr>
<td>BQ</td>
<td>8 9 9</td>
<td>8 9 10</td>
<td>8 10 10</td>
<td>8 10 10</td>
</tr>
<tr>
<td>RMIR&lt;sup&gt;b&lt;/sup&gt;</td>
<td>n/a</td>
<td>10 n/a</td>
<td>10 n/a</td>
<td>7 n/a</td>
</tr>
</tbody>
</table>


<sup>a</sup>In the Colquitt (1997) study, the GPIP and the GPT were one journal.

<sup>b</sup>RMIR was established in 1997.

to the current one are 63 percent and 117 percent, respectively. Also, IME’s and the NAAJ’s AIIF increased by 121 percent and 91 percent, respectively.

Tables 5 and 6 provide comparisons between this study and the previous two Colquitt studies (1997, 2003) for the risk and insurance and actuarial groups in the areas of total citations, total non-self-citations, IIFs, and AIIFs. Among the risk and insurance journals, the most consistent pattern is found with the JRI. With the exception of the JIF in the 1997 study, the JRI was atop the rankings in every category for each of the three studies. Among the actuarial journals, the top three have remained fairly consistent, with IME and the AB being the highest ranking journals for most categories in each of the three studies and the NAAJ being the in the top three in most categories for this and the 2003 studies.

### Article Results

Tables 7 through 10 provide information on the specific risk and insurance and actuarial articles most frequently cited by the sample journals. As was noted in Colquitt (1997), such information is useful to (1) researchers, who are interested in knowing the subjects, methodology, style, etc. that have been used in research deemed to be the most influential in recent years; (2) editors, who are making assessments on the research submitted for publication in their journals; and (3) those responsible for creating reading lists of the most influential research for their graduate-level seminars in risk and insurance and actuarial programs.
## Table 6

Actuarial Journal Ranking Comparisons Over Time

<table>
<thead>
<tr>
<th>Journal/Study</th>
<th>Total Citations</th>
<th>Total Non-Self-Citations</th>
<th>Insurance Impact Factor</th>
<th>Adjusted Insurance Impact Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>JIME</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>AB</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>NAAJ*</td>
<td>n/a</td>
<td>5</td>
<td>3</td>
<td>n/a</td>
</tr>
<tr>
<td>SAJ</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>BA</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>PCAS*</td>
<td>n/a</td>
<td>n/a</td>
<td>6</td>
<td>n/a</td>
</tr>
<tr>
<td>JAP*</td>
<td>n/a</td>
<td>6</td>
<td>7</td>
<td>n/a</td>
</tr>
</tbody>
</table>


*The NAAJ was established in 1997 and, therefore, was not included in the first Colquitt (1997) study.

**The PCAS was not included in the previous two Colquitt (1997, 2003) studies.

The JAP was not included in the first Colquitt (1997) study.

As was done in the previous Colquitt studies, we should highlight a point regarding an important limitation of a study conducted using these data. While this study accurately identifies many of the most influential risk and insurance and actuarial articles, it is possible that there are other highly influential risk and insurance and actuarial articles that were not published in any of the sample journals. For example, a risk and insurance article published in a highly regarded finance or business journal would not be identified in our study. So, while the tables provided do identify many of the risk and insurance and actuarial articles that have been the most influential in recent years, it will not constitute a comprehensive list of the most influential articles published.

Table 7 shows the list of the most frequently cited JRI articles published in each year from 1990 through 2003. The most frequently cited articles are generally found between the years 1996 and 2000, with the exception being the frequently cited Mayers and Smith article published in 1994. A similar table was produced in both of the previous Colquitt (1997, 2003) studies. In these tables, there are 9 years that overlap between the first and second Colquitt studies and also the second Colquitt and the current study. Between the first and second Colquitt studies, there were 3 years (out of 9) where the same article was the most frequently cited for its year by both sample periods. However, between the second Colquitt and this study, there was only one article (out of nine) that was the most frequently cited for its year by both sample periods. The article that was the most frequently cited for its year in both the second Colquitt study and current study is Browne and Kim's 1993 article, "An International Analysis of Life Insurance Demand." The fact that so few articles are the

---

8 No articles published in the JRI during the years 2004 and 2005 were cited by the sample journals more than twice.
TABLE 7
The Journal of Risk and Insurance Articles Published During Each Year, 1990 Through 2003, Which Are the Most Frequently Cited by the Sample Journals During the Years 2001 Through 2005

<table>
<thead>
<tr>
<th>Year</th>
<th>Author(s)</th>
<th>Pages</th>
<th>Title</th>
<th>Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>Bacinello</td>
<td>461–487</td>
<td>Fair valuation of a guaranteed life insurance participating contract embedding a surrender option</td>
<td>4</td>
</tr>
<tr>
<td>2002</td>
<td>Grosen and Jorgensen</td>
<td>63–91</td>
<td>Life insurance liabilities at market value: An analysis of insolvency risk, bonus policy, and regulatory intervention rules in a barrier option framework</td>
<td>8</td>
</tr>
<tr>
<td>2001</td>
<td>Myers and Read</td>
<td>545–580</td>
<td>Capital allocation for insurance companies</td>
<td>8</td>
</tr>
<tr>
<td>2000</td>
<td>Wang</td>
<td>15–36</td>
<td>A class of distortion operators for pricing financial and insurance risks</td>
<td>12</td>
</tr>
<tr>
<td>1998</td>
<td>Brockett, Xia, and Derrig</td>
<td>245–274</td>
<td>Using Kohonen's self-organizing feature map to uncover automobile bodily injury claims fraud</td>
<td>10</td>
</tr>
<tr>
<td>1997</td>
<td>Phillips, Cummins, and Allen</td>
<td>597–636</td>
<td>Financial pricing of insurance in the multiple-line insurance company</td>
<td>10</td>
</tr>
<tr>
<td>1996</td>
<td>Grosen and Jorgensen</td>
<td>481–503</td>
<td>Valuation of early exercisable interest rate guarantees</td>
<td>16</td>
</tr>
<tr>
<td>1995</td>
<td>Frees, Carriere, and Valdez</td>
<td>229–261</td>
<td>Annuity valuation with dependent mortality</td>
<td>10</td>
</tr>
<tr>
<td>1994</td>
<td>Derrig and Ostaszewski</td>
<td>447–482</td>
<td>Fuzzy techniques of pattern recognition in risk and claim classification</td>
<td>9</td>
</tr>
<tr>
<td>1994</td>
<td>Mayers and Smith</td>
<td>638–655</td>
<td>Managerial discretion, regulation, and stock insurer ownership structure</td>
<td>13</td>
</tr>
<tr>
<td>1993</td>
<td>Browne and Kim*</td>
<td>616–634</td>
<td>An international analysis of life insurance demand</td>
<td>9</td>
</tr>
<tr>
<td>1992</td>
<td>McNamara and Rhee</td>
<td>221–238</td>
<td>Ownership structure and performance: The demutualization of life insurers</td>
<td>7</td>
</tr>
<tr>
<td>1991</td>
<td>Cummins</td>
<td>261–302</td>
<td>Statistical and financial models of insurance pricing and the insurance firm</td>
<td>8</td>
</tr>
<tr>
<td>1990</td>
<td>Truett and Truett</td>
<td>321–328</td>
<td>The demand for life insurance in Mexico and the United States: A comparative study</td>
<td>6</td>
</tr>
<tr>
<td>1990</td>
<td>Outreville</td>
<td>487–498</td>
<td>The economic significance of insurance markets in developing countries</td>
<td>6</td>
</tr>
</tbody>
</table>

Note: No article published in the JRI during the years 2004 or 2005 was cited more than twice.
*This article also was among the most cited in the previous study conducted using citations from the sample journals during the years 1996–2000.
<table>
<thead>
<tr>
<th>Rank</th>
<th>Author(s)</th>
<th>Year/Volume</th>
<th>Pages</th>
<th>Title</th>
<th>Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1*</td>
<td>Grosen and Jorgensen</td>
<td>1997/64</td>
<td>481-503</td>
<td>Valuation of early exercisable interest rate guarantees</td>
<td>16</td>
</tr>
<tr>
<td>T1</td>
<td>Boyle and Schwartz</td>
<td>1977/44</td>
<td>639-680</td>
<td>Equilibrium prices of guarantees under equity-linked contracts: Two approaches</td>
<td>16</td>
</tr>
<tr>
<td>3</td>
<td>Jaffee and Russell</td>
<td>1997/64</td>
<td>205-230</td>
<td>Catastrophe insurance, capital markets, and uninsurable risks</td>
<td>14</td>
</tr>
<tr>
<td>T4</td>
<td>Briys and de Varenne</td>
<td>1997/64</td>
<td>673-694</td>
<td>On the risk of insurance liabilities: Debunking some common pitfalls</td>
<td>13</td>
</tr>
<tr>
<td>T4</td>
<td>Mayers and Smith*</td>
<td>1994/61</td>
<td>638-655</td>
<td>Managerial discretion, regulation, and stock insurer ownership structure</td>
<td>13</td>
</tr>
<tr>
<td>T6</td>
<td>Wang</td>
<td>2000/67</td>
<td>15-36</td>
<td>A class of distortion operators for pricing financial and insurance risks</td>
<td>12</td>
</tr>
<tr>
<td>T6</td>
<td>Santomero and Babbel</td>
<td>1997/64</td>
<td>231-270</td>
<td>Financial risk management by insurers: An analysis of the process</td>
<td>12</td>
</tr>
<tr>
<td>T8</td>
<td>Brockett, Xia, and Derrig</td>
<td>1998/65</td>
<td>245-274</td>
<td>Using Kohonen's self-organizing feature map to uncover automobile bodily injury claims fraud</td>
<td>10</td>
</tr>
<tr>
<td>T8</td>
<td>Phillips, Cummins, and Allen</td>
<td>1998/65</td>
<td>597-636</td>
<td>Financial pricing of insurance in the multiple-line insurance company</td>
<td>10</td>
</tr>
<tr>
<td>T8</td>
<td>Persson and Aase</td>
<td>1997/64</td>
<td>599-617</td>
<td>Valuation of the minimum guaranteed return embedded in life insurance products</td>
<td>10</td>
</tr>
<tr>
<td>T8</td>
<td>Frees, Carriere, and Valdez</td>
<td>1996/63</td>
<td>229-261</td>
<td>Annuity valuation with dependent mortality</td>
<td>10</td>
</tr>
<tr>
<td>T12</td>
<td>Seven others papers</td>
<td></td>
<td></td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

*T represents a tie for this rank.

*This article also was among the most cited in the previous study conducted using citations from the sample journals during the years 1996-2000.

Most frequently cited for their year among the three studies speaks to the considerable change that takes place in research focus in a time period of only 5 years. Interestingly, several authors (Cummins, Derrig, Grösen, Jorgensen, and Phillips) were represented multiple times on the list.
### Table 9
The article from each Risk and Insurance and Actuarial Journal that is the most frequently cited by the sample journals during the years 2001 through 2005

<table>
<thead>
<tr>
<th>Journal</th>
<th>Author(s)</th>
<th>Year/Pages</th>
<th>Title</th>
<th>Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Astin Bulletin</em></td>
<td>Wang</td>
<td>1996/71–92</td>
<td>Premium calculation by transforming the layer premium density</td>
<td>26</td>
</tr>
<tr>
<td><em>Geneva Papers on Risk and Insurance Theory</em></td>
<td>Jensen, Jorgensen, and Grosen</td>
<td>2001/57–84</td>
<td>A finite difference approach to the valuation of path-dependent life insurance liabilities</td>
<td>8</td>
</tr>
<tr>
<td><em>Journal of Actuarial Practice</em></td>
<td>Chang</td>
<td>2000/5–42</td>
<td>Realistic pension funding: A stochastic approach</td>
<td>6</td>
</tr>
<tr>
<td><em>Journal of Insurance Regulation</em></td>
<td>Weisberg and Derrig</td>
<td>1991/497–541</td>
<td>Fraud and automobile insurance: A report on the baseline study of bodily injury claims in Massachusetts</td>
<td>9</td>
</tr>
<tr>
<td><em>Journal of Risk and Insurance</em></td>
<td>Grosen and Jorgensen</td>
<td>1997/481–503</td>
<td>Valuation of early exercisable interest rate guarantees</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Boyle and Schwartz</td>
<td>1977/639–680</td>
<td>Equilibrium prices of guarantees under equity-linked contracts: Two approaches</td>
<td>16</td>
</tr>
<tr>
<td><em>Scandinavian Actuarial Journal</em></td>
<td>Aase and Persson</td>
<td>1994/26–52</td>
<td>Pricing of unit-linked life insurance policies</td>
<td>16</td>
</tr>
</tbody>
</table>

Note: The most frequently cited article from *BQ*, the *CPCL*, the *JSP*, and the *III* are not listed because there were multiple articles among these that received no more than three citations each.

*These articles also were among the most cited in the previous study conducted using citations from the sample journals during the years 1996–2000.
### Table 10
The Most Frequently Cited Articles Published in Any of the Actuarial Journals

<table>
<thead>
<tr>
<th>Rank</th>
<th>Author(s)</th>
<th>Journal/Year</th>
<th>Pages</th>
<th>Title</th>
<th>Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gerber and Shiu</td>
<td>NAAJ/98</td>
<td>40-72</td>
<td>On the time value of ruin</td>
<td>47</td>
</tr>
<tr>
<td>2</td>
<td>Dhaene, Denuit, Goovaerts, Kaas, and Vyncke</td>
<td>IME/02</td>
<td>3-33</td>
<td>The concept of comonotonicity in actuarial science and finance: Theory</td>
<td>29</td>
</tr>
<tr>
<td>3</td>
<td>Wilkie</td>
<td>BAI/95</td>
<td>777-964</td>
<td>More on a stochastic asset model for actuarial use</td>
<td>28</td>
</tr>
<tr>
<td>4</td>
<td>Wang</td>
<td>AB/96</td>
<td>71-92</td>
<td>Premium calculation by transforming the layer premium density</td>
<td>26</td>
</tr>
<tr>
<td>5</td>
<td>Dhaene, Denuit, Goovaerts, Kaas, and Vyncke</td>
<td>IME/02</td>
<td>133-161</td>
<td>The concept of comonotonicity in actuarial science and finance: Applications</td>
<td>24</td>
</tr>
<tr>
<td>5</td>
<td>Gerber, Goovaerts, and Kaas</td>
<td>AB/87</td>
<td>151-162</td>
<td>On the probability and severity of ruin</td>
<td>24</td>
</tr>
<tr>
<td>7</td>
<td>Dickson and Hipp</td>
<td>IME/01</td>
<td>333-344</td>
<td>On the time to ruin for Erlang(2) risk processes</td>
<td>23</td>
</tr>
<tr>
<td>7</td>
<td>Wang, Young, and Panjer</td>
<td>IME/97</td>
<td>173-183</td>
<td>Axiomatic characterization of insurance prices</td>
<td>23</td>
</tr>
<tr>
<td>7</td>
<td>Gerber and Shiu</td>
<td>IME/97</td>
<td>129-137</td>
<td>The joint distribution of the time of ruin, the surplus immediately before ruin, and the deficit at ruin</td>
<td>23</td>
</tr>
<tr>
<td>7</td>
<td>Panjer*</td>
<td>AB/81</td>
<td>22-26</td>
<td>Recursive evaluation of a family of compound distribution</td>
<td>23</td>
</tr>
<tr>
<td>11</td>
<td>Grosen and Jorgensen</td>
<td>IME/00</td>
<td>37-57</td>
<td>Fair valuation of life insurance liabilities: The impact of interest rate guarantees, surrender options, and bonus policies</td>
<td>22</td>
</tr>
</tbody>
</table>


*This article also was among the most cited in the previous study conducted using citations from the sample journals during the years 2001–2005.

The JRI articles most frequently cited by the sample journals, regardless of the year published, are found in Table 8. The JRI article most frequently cited by the sample journals is Grosen and Jorgensen’s 1997 article, “Valuation of Early Exercisable Interest Rate Guarantees.” As was the case in the previous table, only one article appears in both this list and the corresponding list from the previous Colquitt (2003) study, that being Mayers and Smith’s 1994 article, “Managerial Discretion, Regulation and Stock Insurer Ownership Structure.” In contrast, between the first and second Colquitt studies, five articles appeared on both lists.

Again, most of the articles found in Table 8 were published during the mid to late 1990s. The most notable exception to this is the 1977 Boyle and Schwartz article,
"Equilibrium Prices of Guarantees Under Equity-Linked Contracts: Two Approaches," which was tied for first as the most frequently cited JRMI article during the 2001 to 2005 period. No author appears in this list more than once.

Table 9 provides a list of the articles from each of the risk and insurance and actuarial journals that were the most frequently cited by the sample journals. Only three journals (the BAJ, the JRMI, and the NAAC) had the same article as its most frequently cited in the current study and the previous Colquitt (2003) study. The 1992 article, "Advances in Prospect Theory: Cumulative Representation of Uncertainty," by Tversky and Kahneman was the most frequently cited JRMI article in both previous Colquitt studies and the current study. Authors that appear in multiple articles on the list are Grosen, Jorgensen, and Wang.

Table 10 contains the most frequently cited articles in any of the actuarial journals. As further evidence of the NAAC's impressive increase in influence in recent years, Gerber and Shiu's 1998 NAAC article, "On the Time Value of Ruin" is the most frequently cited actuarial article with 47 citations (18 more than the second most frequently cited actuarial article). IME is the most frequently represented journal on the list with six of the top 11 most frequently cited articles. The AB and the BAJ are represented with three and one article, respectively. Panjer’s 1981 AB article, "Recursive Evaluation of a Family of Compound Distribution" is the only article that was on the corresponding list in the previous Colquitt (2003) study. Incidentally, it was also on the list of the most frequently cited actuarial articles in the first Colquitt (1997) study. Also, articles in the same issue of IME, "The Concept of Comonotonicity in Actuarial Science and Finance: Theory" and "The Concept of Comonotonicity in Actuarial Science and Finance: Application," both by Dhaene et al. (2002), were numbers 2 and 5 on the list of the most frequently cited actuarial articles.

CONCLUSION

The bibliographies of articles from 17 of the leading risk journals and 16 of the leading finance journals during the years 2001 through 2005 were reviewed and the citations to these same risk journals found in these bibliographies were recorded. Following Colquitt (2003), the risk journals were then broken down into two groups: 10 risk and insurance journals and seven actuarial journals. Using the citation data collected, the journals within each of these two groups were ranked based on the total number of citations (overall research impact) as well as on the citations per article published (per article research impact). The most substantial difference in this study and Colquitt (2003) is a more comprehensive set of available data for RMIR and the NAAC along with the inclusion of the PCAS.

---

*The most frequently cited articles from BQ, the CPCU, the JFSP, and the JII were not included because in each case there were multiple articles with either two or three citations.

A listing of the most frequently cited articles published in any of the risk and insurance journals is not provided because it would so closely resemble Table 9, with the only difference being the inclusion of three articles from the JRMI; Tversky and Kahneman’s 1992 article “Advances in Prospect Theory: Cumulative Representation of Uncertainty” (49 citations), Viscusi and Aldy’s 2003 article, “The Value of a Statistical Life: A Critical View of Market Estimates Throughout the World” (13 citations), and Wakker and Tversky’s 1993 article, “An Axiomatization of Cumulative Prospect Theory” (10 citations).
Among the risk and insurance journals, including and excluding self-citations, the JRI was the most frequently cited journal, followed by the JRII and the JIR. When evaluating the journals on a per article impact, the order remains the same when including self-citations but the JRII falls from second place to fifth when excluding self-citations. RMIR is last among the risk and insurance journals on the basis of total citations but increases to seventh (sixth) when evaluating its impact on a per article basis including self-citations (excluding self-citations). The low overall impact of RMIR is likely due to the fact that it is the youngest of all the sample journals; RMIR was first published in 1997 (approximately 45 percent of all sample citations are to articles published before 1997). The lowest ranking journals of the risk and insurance group on a per article basis are the CPCU, the JESP, and BQ. This is likely due to the specialized nature of these journals.

Consistent with the two previous Colquitt (1997, 2003) studies as well as other studies of risk and insurance journals, the JRI holds its position as the core journal among the risk and insurance group. It clearly stands far above the other risk and insurance journals in both overall impact (with and without self-citations) and on a per article basis (with and without self-citations). The JRI was either the most frequently or second most frequently cited risk and insurance journal by eight of the 10 risk and insurance journals (the exception being the CPCU and the GCS). Also, the JRI is the most frequently cited risk and insurance journal by every journal in the actuarial group and also the only risk and insurance journal cited by each of the journals in the actuarial group. These results are consistent with the previous Colquitt (2003) study.

In terms of total citations, IME is the top journal in the actuarial group, followed by the AB and the NAAJ. Excluding self-citations, IME and the AB remain the top two most frequently cited journals, but the SJR finishes third, ahead of the NAAJ. When ranking the journals on a per article impact, IME remains the highest ranking journal, followed by the NAAJ when including self-citations and the AB when excluding self-citations. IME is to the actuarial group what the JRI is to the risk and insurance group, being the most influential of all journals in its group. IME is either the most frequently or second most frequently cited journal by six of the seven actuarial journals (the exception being the PCAS, which cites itself and the JRI with the most frequency) as well as being the second most frequently cited journal by the JRI. These results are somewhat different from the previous Colquitt (2003) study, where the AB was arguably the most influential among the actuarial journals. Apart from IME, the most notable finding with this study as compared to the previous Colquitt (2003) study is the relative impact of the NAAJ. Its regular position as a top three actuarial journal is impressive, considering it was first published in 1997. As is the case with RMIR, the relative newness of the NAAJ likely will result in its overall ranking increasing in future studies.

The most frequently cited JRI articles, the most frequently cited articles from each risk journal, and the most frequently cited articles from the actuarial group were reported. There is very little overlap between the most frequently cited JRI articles in this study and those of the previous Colquitt (2003) study, with only one article appearing on both lists. This is in contrast to the overlap of the most frequently cited JRI articles from the first two Colquitt studies (1997, 2003), where five articles were common to both. This may suggest a shift in the focus of the JRI during the years
of the most recent sample (2001 through 2005). Two articles share the position as the most frequently cited JRI article, each with 16 citations: Grosen and Jorgensen's 1997 article, "Valuation of Early Excercisable Interest Rate Guarantees" and Boyle and Schwartz's 1977 article, "Equilibrium Prices of Guarantees Under Equity-Linked Contracts: Two Approaches." The most frequently cited article from the risk and insurance group is Tversky and Kahneman's 1992 JIRU article, "Advances in Prospect Theory: Cumulative Representation of Uncertainty."

The most frequently cited articles found in any of the actuarial group journals are Gerber and Shiu's 1998 NAAJ article, "On the Time Value of Ruin" (47 citations); Dhaene et al.'s 2002 IME article, "The Concept of Comonotonicity in Actuarial Science and Finance: Theory" (29 citations); and Wilkie's 1995 BAJ article, "More on a Stochastic Asset Model for Actuarial Use" (28 citations). The influence of the Dhaene et al. article is particularly impressive, given that it was published in 2002, 2 years into the sample period (meaning that it was a citable article in only 3 of the 5 years of data collection). Six of the top 11 most frequently cited articles published in the journals that make up the actuarial group are from IME, highlighting again the high regard in which the actuarial community holds the research published in IME. Of the remaining five articles on the list, three of them are from the AB, reinforcing previous findings that it is one of the most influential actuarial journals as well.

**APPENDIX**
Journals Included in the Study

<table>
<thead>
<tr>
<th>Risk and Insurance Journals</th>
<th>Actuarial Journals</th>
<th>Finance Journals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journal of Financial Services Professionals</td>
<td></td>
<td>Journal of Finance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Journal of Financial Economics</td>
</tr>
<tr>
<td>Journal of Risk and Uncertainty (JRU)</td>
<td></td>
<td>Journal of International Money and Finance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Journal of Portfolio Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CPCU Journal (CPCU)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Geneva Papers on Risk and Insurance Theory (GPT)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Journal of Insurance Issues (III)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Journal of Risk and Insurance (JRI)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Risk Management and Insurance Review (RMIR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>British Actuarial Journal (BAJ)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Journal of Actuarial Practice (JAP)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Proceedings of the Casualty Actuarial Society (PCAS)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Financial Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Journal of Banking and Finance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Journal of Business Finance and Accounting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Journal of Financial Research</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Journal of Futures Markets</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Journal of Money, Credit and Banking</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Review of Financial Studies</td>
</tr>
</tbody>
</table>
REFERENCES


 Actuarial journals in the ABDC2010 journal quality list: Proposed amendments

1. Background and Aim
In 2010, actuarial studies journals were removed from the "interdisciplinary category" to the "Banking, Finance & Investment (FoR 1502)" category. The rationale of the ABDC when doing so was to avoid multiple occurrences of titles in separate lists and (potentially) different rankings. While we agree that this is a valid approach, assigning these outlets to the right category presents challenges, as is determining appropriate rankings for them.

The current classification and rankings of the actuarial journals are given in Table 1 on page 6. While we believe a majority of these are appropriate, we also believe that some amendments are needed for a small proportion of journals. These are highlighted in yellow. First, some journals are classified in the FoR 1503 ("Business & Management"), which is inconsistent with the intention announced in the abovementioned document, and also inappropriate to our field. Second, three journals should be re-ranked and one added, namely:

- Insurance: Mathematics and Economics from A to A*
- ASTIN Bulletin: The Journal of the International Actuarial Association from B to A*
- North American Actuarial Journal from B to A
- European Actuarial Journal from unranked to B

In this document, we aim at providing some justifications for these rankings.

Note that the School of Actuarial Studies internal journal rankings (for years) always had the first three as A*, whereas the fourth is a brand new journal and was never ranked.

Note also that the ABDC 2008 edition was ranking both the ASTIN Bulletin and the North American Actuarial Journal as A* journals.

2. Actuarial studies
Actuarial studies is a highly interdisciplinary discipline which combines techniques and concerns from the areas of statistics, probability, operations research, finance, economics and law. It is both a theoretical and applied discipline; while some research streams are more theoretical than others, actuarial researchers are not interested in developing technical tools per se, but do so (and/or apply them) if and when they provide useful insights and/or are likely to eventually become applicable within the profession. Their findings can have significant repercussions in other fields.

The actuarial profession is a very structured one, with the main global actors being:

- The International Actuarial Association (IAA) – the global forum for all actuarial professional bodies around the world;
- The Society of Actuaries (SoA) – the most powerful American professional organisation, with members and students all around the world and in Asia Pacific in particular;
- The Institute of Actuaries (IoA) – the most powerful British professional organisation, with members and students mainly in the UK and Australia (with some pockets elsewhere in the world as well).

1 See document of explanations (page 3)

2 For instance, a famous example is that of the theory immunisation which was first published in an actuarial professional outlet by an actuary called Redington.
3. On the specificity of actuarial studies
The actuarial profession has always been research active. Historically, most
developments were mainly communicated in journals edited by the societies
mentioned above (IAA, SoA and IoA), rather than purely academic journals. Very
recently, some of these main professional outlets became part of the main academic
indexing databases, but still a significant proportion of communications (especially
when more than a few years old) fall "out of the radar" of the main impact indicators
often used in other academic disciplines.
Furthermore, a significant proportion of the actuarial research is of a type that
requires long development and has long journal acceptance lead-times (such as in
mathematics), which does contribute to relatively lower impact factors and similar
impact indicators. This is not necessarily an issue in itself, unless actuarial journals
are not compared with journals of a discipline with similar characteristics, which is the
case in the ABDC journal rankings list.
In particular, the field of actuarial studies contains a significant component of
mathematics and statistics compared to most finance and economics journal. From
that point of view, it is instructive to note that the 95-percentile of impact factors for
the category "Mathematics" in the 2010 Thomson Science Citation Index is 1.463,
whereas the same percentile in the "Business and Finance" category in the 2010
Thomson Social Science Citation Index is 3.346. If one assumes that actuarial
studies (in general) is a field that is closer to mathematics than business & finance
(which we do) then actuarial data needs to be inflated to be compared in a fair way to
other outlets in the FoR 1502 category.
Finally, the relatively smaller actuarial community also hinders actuarial research to
achieve as high performance indicators as in other disciplines (see also Lemaire,
2005\(^3\)).

4. The Colquitt Studies
There are relatively few published studies or public discussions on the quality of
actuarial journals. The main ones are Colquitt (2005)\(^4\), Colquitt and D'Arcy (2009)\(^5\),
and the most recent Colquitt (2009)\(^6\). Colquitt (2005, 2009) provide evidence on the
"relative significance of research published in eight actuarial journals [...] by
examining the frequency of citations in sixteen risk, insurance, and actuarial journals"
for both periods 1996 through 2000 and 2001 through 2005, respectively. The
author then proceeds by ranking these sixteen journals within two separate
categories, 1) the actuarial group, and 2) the risk and insurance group. We are
interested in the former. While this paper does not necessarily provide cardinal
evidence of the journals’ quality, it provides strong arguments about their relative
standing (the first criterion listed by the ABDC for the ranking, see page 1 of the
document cited in footnote 1).

\(^3\) Lemaire, J. (2005) Actuarial Science as a Scientific Discipline: The Next Step, Guest
http://dx.doi.org/10.1017/S135732170003202

\(^4\) Colquitt, L. L. (2005) An examination of the Influence of Leading Actuarial Journals,
http://www.casact.org/pubs/proceed/proceed05/05011.pdf

Analysis and Assessment, John Wiley & Sons, Ltd.
http://dx.doi.org/10.1002/9780470061696.rik0334

\(^6\) Colquitt, L. L. (2009) A Citation Analysis of Risk, Insurance, and Actuarial Research: 2001
http://dx.doi.org/10.1111/j.1539-5975.2009.01331.x
We show below the main ones, ranked in function of an "Insurance Impact Factor":

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurance: Mathematics and Economics</td>
<td>1 / 2.6102 (3 / 1.6336)</td>
<td>1 / 1.5790 (6 / 0.7466)</td>
</tr>
<tr>
<td>ASTIN Bulletin</td>
<td>3 / 2.0526 (1 / 2.0175)</td>
<td>2 / 1.5052 (1 / 1.4561)</td>
</tr>
<tr>
<td>North American Actuarial Journal</td>
<td>2 / 2.3643 (6 / 1.1746)</td>
<td>3 / 1.3643 (4 / 0.8016)</td>
</tr>
<tr>
<td>Scandinavian Actuarial Journal</td>
<td>4 / 1.6275 (4 / 1.5656)</td>
<td>4 / 1.1373 (2 / 1.1475)</td>
</tr>
</tbody>
</table>

Note that we included the top 4 according to the last column, that is, excluding self-citations. Unsurprisingly, they correspond to the widespread view of the top 2 and top 4 international actuarial journals (see also section 6).

It is interesting to see the progression of the rank of these journals from 1996-2000 (the numbers in parentheses) to 2001-2005. While *Insurance: Mathematics and Economics* and the *North American Actuarial Journal*, relatively newer journals, progressed to a higher places in the ranking the *ASTIN Bulletin* confirmed its position in the top 2 and *Scandinavian Actuarial Journal* in the top 4.

5. Some citation comparative analysis with similar 1502 non-actuarial (but related) journals

In Table 2 (on page 7), we present the following numbers:
- 2009 School of Actuarial Studies ranking, as well as 2012 proposal
- The Colquitt study ranking, according to impact factors and excluding self-cites (see Section 4 above)
- ScImago SJR, provided by Scopus: "ScImago Journal Rank (SJR) is a prestige metric based on the idea that ‘all citations are not created equal’. With SJR, the subject field, quality and reputation of the journal have a direct effect on the value of a citation. SJR is a measure of scientific influence of scholarly journals that accounts for both the number of citations received by a journal and the importance or prestige of the journals where such citations come from." 
- SNIP, provided by Scopus: "Source-Normalized Impact per Paper (SNIP) measures contextual citation impact by weighting citations based on the total number of citations in a subject field. The impact of a single citation is given higher value in subject areas where citations are less likely, and vice versa."
- Thomson Reuters Social Science Citation Index (SSCI): 1-year and 5-year impact factors

---

7 *Insurance Impact Factor (IIF) = citations to a journal’s articles published in a certain period divided by the number of citable articles published during the same period.* (Colquitt, 2005, Table 5)


School of Risk and Actuarial Studies

Data from "Publish or Perish"\textsuperscript{11}, based on Google Scholar data, restricting the search to 2006-2011:

- h-index: "A scientist has index \( h \) if \( h \) of his/her \( N_h \) papers have at least \( h \) citations each, and the other \( (N_h-h) \) papers have no more than \( h \) citations each."

- g-index: "[Given a set of articles] ranked in decreasing order of the number of citations that they received, the g-index is the (unique) largest number such that the top \( g \) articles received (together) at least \( g^2 \) citations."

- AWCR: "The AWCR measures the number of citations to an entire body of work, adjusted for the age of each individual paper. It is an age-weighted citation rate, where the number of citations to a given paper is divided by the age of that paper."

The table is organised in three blocks: A*, A and B.

The actuarial journals that were selected are the ones mentioned at the beginning of this document. They are highlighted in yellow. Note that the ASTIN Bulletin has been assigned to the FoR 1503, which is inconsistent with the other actuarial journals and the ABDC's intention (see document mentioned in footnote 1).

The other FoR 1502 journals were selected to be a representative sample for that quality category, and journals where actuaries could potentially submit some of their work (so with a related scope); except for A* which is an exhaustive list. They are highlighted in blue.

It is also interesting to note that the SJR of Insurance: Mathematics and Economics, introduced in Scopus in 1999, has stayed consistently around 0.05. The ASTIN Bulletin was itself introduced in 2007 and had an SJR vary between .03 and .045. The North American Actuarial Journal was itself introduced in 2006 and has an SJR consistently around .04 to .05.

6. Standing and esteem

It is widely agreed internationally that the top four actuarial journals are Insurance: Mathematics and Economics (IME), the ASTIN Bulletin (ASTIN), the North American Actuarial Journal (NAAJ) and Scandinavian Actuarial Journal (the latter being currently ranked A in the ABDC list). While some may disagree on which is the top journal, all will agree that the top two are IME and ASTIN.

The two most important international, actuarial academic conferences are named after the journals IME and ASTIN. The homonymous journals do not publish proceedings of the conferences.

The editorial board of IME and ASTIN include the top actuarial researchers in the world. The editorial boards of the NAAJ and the European Actuarial Journal include both high profile researchers and practitioners. The NAAJ has the reputation being the academic journal with the best impact on practice because the quality of its contributions, distributed to a very ample and wide readership. Note that while the name of the European Actuarial Journal may suggest a "local" focus, it is in fact called "European" only because it replaces the bulletins of 6 actuarial European professional bodies (the quality levels of which varied from mediocre to excellent) with a strong aim to reach the critical mass that will allow them to become an A/A* journal.

\textsuperscript{11} http://www.harzing.com/pop.htm and http://www.harzing.com/pophelp/metrics.htm
While IME is the top “purely” academic journal, ASTIN and NAAJ are the premier journals of the two most important international actuarial organisations (the IAA and the SoA – see Section 2 above), whose members receive automatically a copy. One of the most prestigious actuarial research prizes, the Hachemeister prize, is reserved to papers that were published in the ASTIN Bulletin (or presented at the ASTIN Conference).

Out of the top 11 most cited actuarial articles considered in Colquitt (2005), 4 were published in ASTIN, 3 in IME, 2 in the Proceedings of the Casualty Actuarial Society (not published any more), 1 in British Actuarial Journal and 1 in Scandinavian Actuarial Journal.

It is worth noting that IME, ASTIN and the NAAJ have sustained a very high reputation for many years. Along with the Scandinavian Actuarial Journal, they form the journals recruitment committees are looking for in applicants’ curriculum vitae to fill or tenure actuarial positions.

At the University of Melbourne, the actuarial journals that are identified as “top tier” and eligible for the “Dean’s Journal Publications Awards” are the ASTIN Bulletin and the Scandinavian Actuarial Journal.  

---

12 University of Melbourne Faculty of Economics and Commerce, Dean’s Journal Publication Awards (last accessed 13 June 2012)
7. Analysis / Conclusions

From the above, we conclude:

**ASTIN Bulletin (ASTIN) from B to A**

*Insurance: Mathematics and Economics (IME) from A to A*

- There is no doubt that ASTIN and IME are the top 2 international actuarial journals.
- Even though the actuarial field (due to its nature) is at a disadvantage when compared to other journals in the FoR 1502 (see Section 3 above), the citation data of IME is similar to that of some A* finance (FoR 1502) journals, and arguably better in some cases (when compared to the Journal of Corporate Finance and the Journal of Financial and Quantitative Analysis).
- While the citation data of ASTIN is not as good as that of IME, its international esteem cannot be discounted and there is strong evidence (see in particular the Colquitt (2005) analysis) that it has at least as much impact as IME on the field.

**North American Actuarial Journal (NAAJ) from B to A**

- From an international point of view, the NAAJ is of the same quality as ASTIN and IME, although for a different type of readership (professional).
- Although many actuarial researchers would rank the NAAJ A*, we cannot sustain this view within the scope of this document, as the journal's focus is slightly less academic and as its impact is relatively weaker.
- That being said, the NAAJ's citation data is close to that of the ASTIN Bulletin (demonstrating significant impact still), and clearly better than some other FoR 1502 A journals.

**European Actuarial Journal (EAJ) from "unranked" to B**

- In terms of editorial board and policy, as well as publisher (Springer) and readership, this journal is set up to be of an excellent quality.
- After two issues (half a year) only, this journal already has an h-index of 4 and a g-index of 5, along with 1.15 cites per paper.
- While we believe this journal has strong potential to become an A, we cannot strongly argue in this way yet and propose a rank of B.
### Table 1: Actuarial Journals in the ABDC Journal List

<table>
<thead>
<tr>
<th>Journal Name</th>
<th>FoR</th>
<th>ABDC ranking</th>
<th>School ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTIN Bulletin</td>
<td>1503</td>
<td>B</td>
<td>A*</td>
</tr>
<tr>
<td>Insurance: Mathematics and Economics</td>
<td>1502</td>
<td>A</td>
<td>A*</td>
</tr>
<tr>
<td>Scandinavian Actuarial Journal</td>
<td>1502</td>
<td>A*</td>
<td>A</td>
</tr>
<tr>
<td>North American Actuarial Journal</td>
<td>1502</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td>Annals of Actuarial Science</td>
<td>1502</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>European Actuarial Journal</td>
<td>n/a</td>
<td>n/a</td>
<td>B</td>
</tr>
<tr>
<td>British Actuarial Journal</td>
<td>1502</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>Variance</td>
<td>1503</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Journal of Actuarial Practice</td>
<td>1502</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Casualty Actuarial Society Forum</td>
<td>1502</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Australian Actuarial Journal</td>
<td>1532</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>South African Actuarial Journal</td>
<td>1503</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Actuarial Research Clearing House</td>
<td>1532</td>
<td>C</td>
<td>C</td>
</tr>
</tbody>
</table>

*This journal is duplicated A and B in the "ABDC_Journals_List_by_Rating.xls" and in the "ABDC_by_FoR_Coa_1502.xls". We believe A is appropriate (see also related argument in the rest of the document).*
## Table 2: Citation analysis of selected actuarial and other FoR 1502 journals

<table>
<thead>
<tr>
<th>Actuarial Discipline Journals</th>
<th>FOR 2009</th>
<th>ASJC 2010</th>
<th>School ranking 2005 Proposal</th>
<th>Colquhoun q</th>
<th>SIJR</th>
<th>SJR</th>
<th>SNIP</th>
<th>SCI / SCI-EXP-ENG</th>
<th>Scopus IF 5 years</th>
<th>PoP year of publication 2006-2011</th>
<th>h-index</th>
<th>g-index</th>
<th>AWCR</th>
<th>cites/paper</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Actuarial Journal</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current journals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Review of Financial Studies</td>
<td>1502</td>
<td>A*</td>
<td></td>
<td>0.005</td>
<td>0.271</td>
<td>4.602</td>
<td>5.016</td>
<td>105.000</td>
<td>174</td>
<td>10128.59</td>
<td>64.13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Journal of Finance</td>
<td>1502</td>
<td>A*</td>
<td></td>
<td>0.004</td>
<td>0.706</td>
<td>4.151</td>
<td>5.620</td>
<td>159.000</td>
<td>156</td>
<td>5239.25</td>
<td>47.13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Journal of Financial Economics</td>
<td>1502</td>
<td>A*</td>
<td></td>
<td>0.004</td>
<td>0.849</td>
<td>4.810</td>
<td>5.821</td>
<td>166.000</td>
<td>180</td>
<td>3494.11</td>
<td>47.81</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Journal of Banking and Finance</td>
<td>1502</td>
<td>A*</td>
<td></td>
<td>0.005</td>
<td>0.795</td>
<td>2.701</td>
<td>2.523</td>
<td>67.000</td>
<td>60</td>
<td>4520.84</td>
<td>23.83</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Journal of Financial And Quantitative Analysis</td>
<td>1502</td>
<td>A*</td>
<td></td>
<td>0.005</td>
<td>0.245</td>
<td>1.501</td>
<td>2.162</td>
<td>51.000</td>
<td>77</td>
<td>2152.53</td>
<td>27.04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Journal of Corporate Finance</td>
<td>1502</td>
<td>A*</td>
<td></td>
<td>0.003</td>
<td>0.246</td>
<td>1.523</td>
<td>2.199</td>
<td>59.000</td>
<td>59</td>
<td>648.56</td>
<td>14.24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurance: Mathematics and Economics</td>
<td>1502</td>
<td>A*</td>
<td></td>
<td>0.004</td>
<td>0.248</td>
<td>1.716</td>
<td>1.151</td>
<td>34.000</td>
<td>52</td>
<td>1415.50</td>
<td>9.63</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASTIN Bulletin: Journal of the International Actuarial Association</td>
<td>1502</td>
<td>A*</td>
<td></td>
<td>0.003</td>
<td>1.344</td>
<td>0.702</td>
<td>1.369</td>
<td>17.000</td>
<td>32</td>
<td>278.61</td>
<td>7.65</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematical Finance</td>
<td>1402</td>
<td>A</td>
<td></td>
<td>0.048</td>
<td>3.162</td>
<td>1.052</td>
<td>1.201</td>
<td>36.000</td>
<td>53</td>
<td>1018.25</td>
<td>14.20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finance and Stochastics</td>
<td>1602</td>
<td>A</td>
<td></td>
<td>0.048</td>
<td>2.613</td>
<td>1.328</td>
<td>1.370</td>
<td>29.000</td>
<td>42</td>
<td>592.87</td>
<td>14.36</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounting and Finance</td>
<td>1501</td>
<td>A</td>
<td></td>
<td>0.029</td>
<td>0.941</td>
<td>0.452</td>
<td>0.452</td>
<td>4.000</td>
<td>14</td>
<td>65.55</td>
<td>3.32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>International Review of Finance</td>
<td>1502</td>
<td>A</td>
<td></td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North American Actuarial Journal</td>
<td>1502</td>
<td>A*</td>
<td></td>
<td>0.030</td>
<td>1.509</td>
<td>n/a</td>
<td>n/a</td>
<td>15.000</td>
<td>24</td>
<td>209.71</td>
<td>6.23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>European Journal of Finance</td>
<td>1502</td>
<td>B</td>
<td></td>
<td>0.033</td>
<td>0.656</td>
<td>0.486</td>
<td>n/a</td>
<td>17.000</td>
<td>25</td>
<td>314.00</td>
<td>5.56</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied Mathematical Finance</td>
<td>1502</td>
<td>B</td>
<td></td>
<td>0.038</td>
<td>0.728</td>
<td>n/a</td>
<td>n/a</td>
<td>17.000</td>
<td>26</td>
<td>210.55</td>
<td>8.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quarterly Review of Economics and Finance</td>
<td>1502</td>
<td>B</td>
<td></td>
<td>0.030</td>
<td>0.765</td>
<td>n/a</td>
<td>n/a</td>
<td>19.000</td>
<td>28</td>
<td>600.21</td>
<td>5.70</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>European Actuarial Journal</td>
<td>1562</td>
<td>n/a</td>
<td></td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>4.609</td>
<td>5</td>
<td>15.50</td>
<td>1.15</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix C8: Signatory Details (ASTIN Bulletin)

<table>
<thead>
<tr>
<th>Name</th>
<th>University affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor Michael Sherris</td>
<td>Head School of Risk and Actuarial Studies, Australian School of Business, UNSW (on behalf of all 16 members of the School of Risk and Actuarial Studies). The document at Appendix C7b was passed at a school meeting in 2012.</td>
</tr>
<tr>
<td>Professor David Dickson</td>
<td>Centre for Actuarial Studies, Faculty of Business and Economics, the University of Melbourne (on behalf of most members of the Centre for Actuarial Studies – Professor David Dickson, Associate Professor Shuanming Li and Dr Xueyuan).</td>
</tr>
<tr>
<td>Associate Professor Leonie Tickle</td>
<td>Actuarial Studies Cluster, Department of Applied Finance and Actuarial Studies, Macquarie University (on behalf of all members of the Actuarial Studies Cluster).</td>
</tr>
<tr>
<td>Dr Tim Higgins</td>
<td>Research School of Finance, Actuarial Studies and Applied Statistics, ANU College of Business and Economics, The Australian National University (on behalf of Tim Higgins and Abhinav Mehta)</td>
</tr>
</tbody>
</table>

Email approvals attached.
From: David Dickson [mailto:dcmd@unimelb.edu.au]
Sent: Thursday, 30 May 2013 2:48 PM
To: Hazel Bateman
Cc: Xueyuan Wu; Shuanming Li
Subject: ABDC journal rankings review

Dear Hazel,

I have canvassed members of the Centre for Actuarial Studies at the University of Melbourne and there is support from the three people who primarily publish in actuarial journals, namely myself, Associate Professor Shuanming Li, and Dr Xueyuan Wu, for the following changes:

A rating upgrade for ‘Insurance: Mathematics and Economics’ from ABDC ‘A’ to ABDC ‘A**’.
A rating upgrade for the ‘ASTIN Bulletin’ from ABDC ‘B’ to ABDC ‘A**’.
The introduction of a new academic journal - the ‘European Actuarial Journal’ on the ABDC list as ABDC ‘B’.

Regards,

David

David C M Dickson
Centre for Actuarial Studies
Faculty of Business and Economics
FBE Building, 111 Barry Street
The University of Melbourne
VIC 3010
Australia

Tel: (+61) 03 8344 4727
Fax: (+61) 03 8344 6899
email: dcmd@unimelb.edu.au
From: Leonie Tickle [mailto:leonie.tick@mq.edu.au]
Sent: Friday, 31 May 2013 1:15 PM
To: Hazel Bateman
Cc: Sue Wright; David Pitt
Subject: Macquarie support for ABDC submission

Dear Hazel

The Actuarial Studies cluster at Macquarie University would be happy to add our support to your submission to ABDC. We fully support the re-ranking of the four journals as per your suggestion, specifically:

. a rating upgrade for ‘Insurance: Mathematics and Economics’ from A to A*
. a rating upgrade for the ‘ASTIN Bulletin’ from B to A*
. a rating upgrade for the ‘North American Actuarial Journal’ from B to A
. the introduction of a new academic journal - the ‘European Actuarial Journal’ on the ABDC list with rank B

We also thought that the new Australian Journal of Actuarial Practice should be added, presumably with a rating of C as for its predecessor, the Australian Actuarial Journal.

There is general support for this recommendation across our entire group, but if you'd like to add individual signatories, I can send you individual names - please let me know.

Please let me know if you need anything further from us.

Best wishes,
Leonie

--
Leonie Tickle
Associate Professor in Actuarial Studies
Department of Applied Finance and Actuarial Studies
Level 6, E4A Building
Eastern Road
Macquarie University
NSW 2109 Australia
T: +61 2 9850 8567
F: +61 2 9850 9481

CRICOS Provider Number 00002J

Please consider the environment before printing this email.

This email (including all attachments) is confidential. It may be subject to legal professional privilege and/or protected by copyright. If you receive it in error do not use it or disclose it, notify the sender immediately, delete it from your system and destroy any copies. The University does not guarantee that any email or attachment is secure or free from viruses or other defects. The University is not responsible for emails that are personal or unrelated to the University’s functions.
Dear Hazel,

Myself, Dr Tim Higgins (FIIA) and Mr Abhinav Mehta (AIIA) from ANU, agree with the proposal to change the ranking of 4 Actuarial journals as follows:

- A rating upgrade for 'Insurance: Mathematics and Economics' from ABDC ‘A’ to ABDC ‘A**’.
- A rating upgrade for the ‘ASTIN Bulletin’ from ABDC ‘B’ to ABDC ‘A**’.
- The introduction of a new academic journal - the ‘European Actuarial Journal’ on the ABDC list as ABDC ‘B’.

Kind Regards,

Tim