

International News

ISSUE 63 SEPTEMBER 2014

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International News

ISSUE 63 SEPTEMBER 2014

Published by the International Section Council of the
Society of Actuaries

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This newsletter is free to section members. Current issues are available on the SOA website (www.soa.org).

To join the section, SOA members and non-members can locate a membership form on the International Section Web page at <http://www.soa.org/International/>.

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Editor's Note

By Carl Hansen

Reviewing the recent International Congress of Actuaries (ICA) in Washington, D.C. for the summary on page 19, I was very impressed with the overall quality and variety of the papers and presentations representing all traditional actuarial disciplines plus some emerging areas of practice. Unfortunately, when attending you are forced to choose one session in a time slot! I certainly encourage readers to visit the ICA website to sample the papers, presentation materials, and recordings.

While the ICA certainly felt very international, I was surprised to see just how many different countries and territories were represented, including some where I did not realize there are actuaries and many where the profession is in earlier stages of development. As an example, this issue includes an article on the actuarial profession in Bangladesh based on material submitted to the ICA (see page 17). For those of us in jurisdictions with excellent actuarial resources that have been in place for many years, it is sometimes difficult to fully appreciate the practical hardships of developing the profession locally. There is much that we can contribute to assist local organizations that will in turn develop the profession globally.

Here in Guernsey, we recently hosted the black tie optional annual dinner of the Channel Islands Actuarial Association for about 75 members and guests. While most local actuaries pursue the United Kingdom actuarial examinations, I can report that there has been steady growth in the number of SOA members here up to the current level of five.

Please consider attending one of the many international actuarial events in the remainder of 2014 or 2015 to contribute to the global growth of the profession. Major events in the last few months of 2014 are the East Asian Actuarial Conference in Taipei, Taiwan in October (see page 24) and the Caribbean Actuarial Association Annual Conference in Barbados in December (page 21).

In 2015, the International Actuarial Association is co-hosting colloquia in two lovely cities. The first in June in Oslo, Norway is a joint collaboration of the International Association of Consulting Actuaries (IACA), Life Insurance, and the Pension Benefits & Social Security (PBSS) sections. Sydney, Australia will host the Actuarial Approach for Financial Risks/Enterprise Risk Management (AFIR/ERM) and Actuarial Studies in Non-

Life Insurance (ASTIN) sections in August. Both colloquia will include presentation and discussion of papers on relevant issues, various other topical presentations, outside speakers, and social activities. Those interested in attending, submitting papers, or simply wanting more information can see pages 15 and 22.

Finally, we again include an article on the Masters in Actuarial Science program at Columbia University in the United States on page 6. Columbia seems to have some entrepreneurial students that are very interested in learning more about the actuarial profession from a global perspective. □



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Chairperson's Corner

By Sunil Sen

Summer has arrived for many of us, and with it, the opportunity to enjoy the nice weather and potentially a break from the daily grind. I was fortunate to attend a wedding in Kenya and safari in Masai Mara a few weeks back, both of which were breathtaking experiences. During such times, one has the rare opportunity to step back and reflect on the direction and composition of one's activities. Within the International Section, we are in a period of reflection and transition. We have been privileged to be in a position to help drive the SOA's international strategy for many years. As you know, the SOA has taken a serious interest in serving the actuarial community outside of North America. This includes the formation of an International Strategy Committee created to drive our international strategy, whose purview includes both structural and directional initiatives. For the International Section, this means we are no longer at the forefront, driving the SOA's international strategy, but rather evolving to a supportive role. This is not a negative transition, but rather one which illustrates how our section's mission and grassroots organization has grown to become one of the SOA's top focuses. We are proud of the foundation we have created and we look forward to continuing to serve our membership in the future!

So what does this mean for our section and how we serve our constituents? We will become more targeted in our initiatives, but also be granted flexibility and freedom to explore new member service offerings. In previous newsletters, we have highlighted the mentorship and scholarship as well as research initiatives. With regards to the latter, we have decided to solicit requests from our members (you!).

SOA INTERNATIONAL SECTION: RESEARCH REQUEST FOR PROPOSALS

The International Section is requesting proposals for research initiatives. In place of dictating where research should be conducted, we believe that it should be driven through our membership from the

bottom up. We are seeking topics which are both focused and targeted towards our international constituents, while also being informative for the North America membership. Responses should include the following components:

- Topic of choice and summary of key outputs
- Intended targeted audience
- Expected timeline to completion
- Required volunteer structure
- Target funding required

If your proposal is selected, we will expect you to lead the research; however, we will assist in resource requirements if necessary. Funding will be provided both from the International Section and if of interest, by other section councils and the SOA itself. Think big, think small—the key is providing relevant research which will serve the international community and further actuarial work and education in international markets.

Research submissions should be directed to myself (sunil.w.sen@us.pwc.com), Carlos Arocha (ca@arochaandassociates.ch), and Martha Sikaras (msikaras@soa.org).

Are you up to the challenge? □

SOA 2014

SOCIETY OF ACTUARIES
Annual Meeting & Exhibit

Oct. 26-29, 2014
Rosen Shingle Creek
Orlando

Invent
Change
Adapt
Learn
Build
Innovate
Perform

Through the profession,
collaboration, research, education and
our members...

TOGETHER WE PROGRESS

SOAAnnualMeeting.org

100+ INSIGHTFUL SESSIONS

25+ PRODUCTIVE
NETWORKING
OPPORTUNITIES

1,800+ INNOVATIVE MEMBERS

300+ DEDICATED
PRESENTERS



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Columbia Invades Bermuda

By Michael L. Frank



In March 2014, students from Columbia University, Masters in Actuarial Science program participated in an educational trip to learn about the international insurance and reinsurance market. Students and faculty joined Michael Frank and Donald Rusconi (adjunct professors at Columbia and principals at Aquarius Capital) on an intensive educational trip with students meeting with twenty six (26) reinsurance companies and organizations supporting the insurance industry in Bermuda over a four day period. In total, there were fifteen (15) participants from Columbia.

The meetings kicked off in Catlin's office on Monday, March 17 with a half day presentation with students meeting ten executives at Catlin and learning all aspects of the business. Meetings ended on the afternoon of Thursday, March 20 at Arch Capital Group with students again receiving a half day presentation and meeting ten executives.

AN INVALUABLE EDUCATION EXPERIENCE

During the four day period, students met with more than eighty (80) executives at twenty six (26) companies in the insurance industry including life, accident, health and property/casualty companies in Bermuda including CEOs, CFOs, chief actuaries, chief underwriters, chief risk officers and other executives in the reinsurance industry.

Students were exposed to the following during their trip:

- All aspects of the reinsurance business including marketing, underwriting, pricing, valuation, ERM, retrocession, claims management, cat modeling, operations, investments, regulations and other aspects of the insurance and reinsurance industry (and how actuaries interact in the day-to-day operations).
- Meetings at the different companies and presentations from executive management of those organizations, as well as one-on-one meeting with different experts in the industry.
- How insurance and reinsurance professionals from different backgrounds and specialties work together to meet common objectives.
- Different technology and software tools that actuaries and reinsurance professionals use to manage the business.
- The practical applications of enterprise risk management (ERM) in the day-to-day management of the business, including establishment of pricing and underwriting committees.

The presentations provided to students also covered trends in the insurance and reinsurance market, history of the reinsurance market (including Bermuda), and

Students received valuable career advice with professionals sharing countless stories and experiences.

business plans of the various companies. Students also go to see sample test cases for underwriting, cat modeling, pricing and valuation (e.g., Tokio Millennium Re showed students application of different pricing and reserve valuation methods).

Students were also exposed to all types of reinsurance treaties including understanding the marketing, underwriting, pricing, auditing, claims management, and legal involvement in the transactions. In addition to traditional reinsurance, students learned about the evolution of the captive insurance company market as well as cat bonds, insurance linked securities and Solvency II.

Students were provided additional insights and exposure to all levels of risk analysis on an international basis and how Bermuda companies work with organizations throughout the world (e.g., United States, United Kingdom, Asia, Latin America, etc.), including marketing, evaluating, and managing risk. Reinsurance companies discussed the impacts of the catastrophes in Japan and other Asian nations and their impact on the world's insurance economy. The different companies also showed how the science community and research are an important part of their business plan and managing of risk.

Various companies also shared details about their business plans including strategies on their new product lines and histories of their own organizations, including positives and negatives, and how they learned from the negatives.

BILTIR

Students also attended a cocktail hour hosted by Bermuda International Long-Term Insurers and Reinsurers (BILTIR), which is an association formed in 2011 representing the long-term insurer and reinsurer group in Bermuda. BILTIR (www.biltir.bm)

membership has grown to 28 companies as of January 2014. Students met a variety of companies at BILTIR and had the ability to spend additional time with some of the companies that they met during their stay on the island. It was a great opportunity for students to network with industry professionals while expanding their understanding of the actuarial and insurance industry.

BFIS

In addition to reinsurance companies, students also meet with the Bermuda Foundation for Insurance Studies (BFIS), which is an organization that offers scholarships and education programs to students interested in the insurance and actuarial profession. At BFIS (www.bfis.bm), students were able to discuss the profession with some of the thought leaders in Bermuda on the education field for actuaries. BFIS also shared material including a textbook on the history of the Bermuda reinsurance market.

IMPORTANCE OF HISTORY IN BERMUDA

The Bermuda reinsurance market is proud of its history and many of the executives were able to share various aspects of the history, including where their organizations fit in to it. As U.S. college students and college graduates, we think of ourselves as part of a graduating class (e.g., I am University of Michigan graduating class of 1987). Many of the Bermuda reinsurance companies also recognize their origins so companies will identify themselves as the class of: Hurricane Andrew, Hurricane Katrina, 9/11, etc.

Every catastrophic event in the world (e.g., earthquakes, hurricanes, etc.) has created a chain reaction in the reinsurance industry whereby losses in the industry generated a growth in the reinsurance market, especially in Bermuda. Students learned about the importance of these events as well as how the impact



of experiences in soft markets and hard markets evolved the Bermuda reinsurance market.

Students were able to see firsthand how organizations had incorporated ERM into their everyday business practices, and how ERM planning was critical for the ongoing success of the organizations in Bermuda and worldwide.

CAREER ADVICE

Students received valuable career advice with professionals sharing countless stories and experiences. Students were also able to get a more global perspective of the insurance and reinsurance industry, while also getting better insight of the different aspects of life, accident, health and property/casualty reinsurance to help provide them a framework to make better

career direction choices. Students also asked many questions during the trip and the interaction of the students and executives was a great experience.

Students were able to relate experiences to many of the individuals that they met on the trip. With the Columbia actuarial program having students from more than 20 countries and six continents, the students were a very diverse group. The Bermuda reinsurance market is equally diverse with students meeting executives from a variety of countries worldwide working together to meet a common objective. The 80 people that they met came from close to 20 countries.

BEYOND REINSURANCE

Although the trip was scheduled to be a four day meeting marathon, several students stayed on the island to enjoy some of the tourist aspects of Bermuda. Some students even spent additional time meeting with companies that they met earlier in the week.

On a personal note, I was fortunate enough to experience this trip with my daughter (oldest of four kids), who is a sophomore at Fordham University. She joined me on this trip to Bermuda, but did not attend any of the meetings other than the cocktail hour hosted by BILTIR. Instead, she scouted out the island during the four day trip and identified a variety of activities and cultural events. The island has a large artistic and culinary community with my daughter meeting famous local artists as well as attending chef competitions (I was able to attend a couple of events including the cooking competition). We met many local people in the culinary field, news media, and artistic community with a mix of local Bermudians plus many transplants from other countries (United Kingdom, Canada and many other nations). All of them were very friendly and made the trip a great experience.

TRIP ORIGATION

The genesis of this trip began last year when a few students elected to go to Bermuda on Spring break and one of the students, Grace Feng Wu, contacted me while on break to see if we can introduce her to a company in Bermuda so that they can learn more about the market. These students had previously studied the health care and reinsurance system in Bermuda in classes at Columbia that I taught with Donald Rusconi, and it spurred an interest to visit Bermuda. (Bermuda was one of the 24 countries studied in a Columbia class called “Global Perspective of the Health Insurance Market.”)

On very short notice, I had contacted Marc Grandisson at Arch Capital Group. He and the team at Arch were

willing to meet with students and returned with positive feedback.

The Columbia University Student Actuarial Club asked Ken Mitchell (Mitchell Actuarial Recruiting and an executive recruiter for Columbia University) and me to develop a similar trip for 2014. Ken and I reached out to the reinsurance community in Bermuda and got a positive response.

STUDENT PREPARATION

Prior to the trip, students were provided an overview of the international reinsurance market including the history of the Bermuda reinsurance economy. Students attended seminars on reinsurance and also training specific to the Bermuda reinsurance market. The University established educational sessions for students about traveling to Bermuda with focus on the cultural and business ethics specific to the country. The students also had the benefit of having two native Bermudian students that were in Columbia’s program participate on the trip.

The weather was in the high 60s/low 70s Fahrenheit, which was ideal after enduring this past winter in New York. Other than some minor rain during one morning, the days were clear and sunny making traveling on the island easy with students walking to many of the meetings.

THE FUTURE

Based on the experience and feedback from students, we look forward to doing future trips with students to Bermuda. We hope to meet with many of the same companies plus additional ones so that students can expand their reinsurance knowledge and career development.

SPECIAL THANKS AND ACKNOWLEDGEMENTS

On behalf of Aquarius Capital and Columbia University, M.S. in Actuarial Science, we want to thank the following organizations for their participation in this education program.

- ACE Tempest Life
- Aon
- Arch Capital Group
- Athene Life Re
- Axis
- Bermuda Foundation For Insurance Studies
- Bermuda International Long-Term Insurers and Reinsurers (BILTIR)
- Bermuda Monetary Authority (BMA)
- Catlin Insurance Company
- Credit Suisse
- Deloitte
- Ernst & Young
- Front Street Re
- Hannover Re
- Lancashire Group
- Liberty Mutual
- Montepelier Re
- Platinum Underwriters Bermuda
- PriceWaterhouseCoopers (PWC)
- Renaissance Reinsurance
- Safe Harbor Re
- Standard Life
- Tokio Millennium Re
- Transamerica
- Validus Holding
- Wilton Re

The companies above provided extraordinary hospitality. We appreciate the reinsurance community's willingness to share their time and experiences with our students, especially the individuals and executives that gave their valuable time to educate and enhance the experience for the students.

Additional thanks to Donald Rusconi, VP & CFO at Aquarius Capital for his work in this joint effort, and to Noor Rajah and Lina Xu, faculty at Columbia University, for their assistance in getting things in motion and for trusting us to create a unique program for Columbia's graduate students.

In addition to the participating companies, ***WE*** want to thank the other faculty and student services department at Columbia University for their assistance on this trip as well as some of the vendors and consultants used by Columbia. Additional thanks to the following:

- Renaissance Management, Inc. for assisting and coordinating the trip and facilitating training for students prior to the trip
- LICAS for their assistance in communications technology support in order to manage and facilitate meetings
- Mitchell Actuarial Recruiting for their assistance in reaching out to prospective companies that participated in the education forum for students
- Sylvia Oliveira of Wilton Re Bermuda and a board member of BILTIR for her assistance in recruit-

ing participating companies and establishing a cocktail hour for students to meet reinsurance professionals.

- Grace Feng Wu, a graduate of the Columbia program, who helped set this trip in motion in the beginning of 2013, and encouraged the Columbia Actuarial Student Program to pursue this education trip during the students' spring break in 2014.
- Arch Capital Group for making the 2013 education trip a success for the three students that visited Bermuda, which ultimately lead to this larger trip involving 26 companies in 2014.

The number of people to thank on this trip between the Bermuda companies and those in New York to make this happen is over 100 people, so my apologies if I missed anyone. A special thanks to the Columbia University graduate students that went on this adventure to Bermuda rather than relaxing on their spring break. The students were very engaged in making this education trip a success. I look forward to future meetings.

ABOUT COLUMBIA'S ACTUARIAL PROGRAM

Columbia University was founded in 1754 as King's College by royal charter of King George II of England. It is the oldest institution of higher learning in the state of New York and the fifth oldest in the United States. The Masters of Science in Actuarial Science program was formed in 2006. It is an 18 month intensive program with students taught by practicing actuaries and insurance experts. The program currently has 23 credentialed actuaries as faculty (three full time and 20 part time professors).

Each fall, the program enrolls between 75 to 100 new students with students representing more than 20 different countries including the US (approximately 30 percent), Bermuda, Canada, China, Cyprus, Germany, India, Italy, Japan, Korea, Spain, Taiwan, Thailand, United Kingdom, and many others.

The core curriculum includes classes to help students with the associate level exams for SOA & CAS plus earn all Validation by Educational Experience (VEE). It also has specialty courses with more than 30 comprehensive electives focusing on topics including property/casualty, pensions, life insurance, reinsurance, and health insurance with training in pricing, valuation, mergers & acquisition and other financial disciplines internationally.

As part of the curriculum, students attend regular (twice per week) seminars and training from industry experts in actuarial science and insurance/reinsurance industry and will be attending more than sixty (60) seminars by the time they graduate. This program is referred to as ProSeminar. Sample organizations that participate in ProSeminar include AIG, Aon Hewitt, Aquarius Capital, Athene Annuity & Life, AXA/Equitable, Deloitte, Emblem Health, Marsh/Oliver Wyman, MetLife/ALICO, Milliman, NAIC, New York Life, Presidential Life, PricewaterhouseCoopers, Prudential Insurance, Société Générale, Society of Actuaries (current SOA President), Swiss Re and many others. Students are also able to attend presentations from world leaders and economists (e.g., chief economist of the China Banking Association).

Students are also mentored to develop critical business communication skills and presentations. They work in a team environment and research with practitioners. Mentors come from a variety of backgrounds including former presidents of SOA, and active CEOs and Chief Actuaries of large insurance/reinsurance companies. Furthermore, many organizations (U.S. and international) in the actuarial, insurance, and banking industries have partnered with the Columbia University Actuarial Program with more than fifty organizations providing internship programs to Columbia students.

Visit <http://ce.columbia.edu/Actuarial-Science> for further details of the Columbia program. □



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Growing Up

By Janice Holman

CANADA'S DC PENSION MARKET IS MATURING, AND MORE MEMBERS ARE NEARING RETIREMENT. IT'S TIME TO GET SERIOUS ABOUT THE PAYOUT PHASE.

Since the early 1990s, when pension plan sponsors began in earnest to convert their DB plans to DC, Canada has seen a sustained shift in the pension landscape. Between 1991 and 2006, according to Statistics Canada, the number of members covered by employersponsored DB plans shrunk by 4%, while DC membership grew by 93%. A similar change took place over the same time period in the U.K. Plan sponsors on both sides of the pond have responded to this trend by taking steps to improve the saving phase for DC members, but few have given much thought to the payout phase that follows.

Recent changes in both Canada and the U.K. should help to address this gap. But with workplace demographics shifting quickly and a wave of aging baby boomers moving into retirement, more needs to be done—and quickly—to prepare DC plan members to manage their income once they leave the workforce.

GROWTH SPURT

In recent years, the U.K.'s DC payout market has focused on ensuring that member incomes could be sustained throughout retirement. This was achieved by imposing significant tax consequences for withdrawing retirement savings above set limits and a requirement to guarantee a minimum level of income. The result was that a vast majority (approximately 90%) of retiring members used DC pension savings to purchase an annuity.

The U.K. government's 2014 budget, tabled in March, has radically changed this structure by removing surcharges on DC pension withdrawals, phasing in the removal of a guaranteed minimum pension and laying

the groundwork for more flexible payout strategies. The key to the success of this approach lies in the government's promise to offer every employee free and unbiased financial advice at the time of retirement. Chancellor George Osborne said the moves were being made to bring the U.K.'s treatment of retiring DC plan members "into line with the modern world."

Canada—with its comparatively flexible approach to the DC payout phase—may represent the modern world that Osborne spoke of. But evidence suggests that Canadian DC plan members are not prepared for this flexibility.

In *Benefits Canada's* 2013 *CAP Member Survey*, about one-third of members admitted having a poor understanding or no understanding of how much they need to save for adequate income in retirement. In addition, 35% said they have poor or no understanding of longevity risk, and 37% indicated poor or no understanding of inflationary risk.

Also, there is currently little fiduciary oversight of the income conversion process. Members retiring from a DC plan in Canada typically receive an election package (also called a termination package) from the plan's recordkeeper. This package includes a list of payout product options—including the recordkeeper's product, which is generally at the top of the list—and significant marketing material but little in the way of information or tools to help members determine which products might work best for them. In many cases, the plan sponsor has very little involvement in the content provided in the election package or the products being offered.

This lack of guidance is evident in how DC pension assets are allocated at retirement. Based on Eckler's research, 50% to 65% of member assets are trans-

...the success of DC pension plans hinges on the ability to move members through both the saving and payout phases...

ferred to other financial institutions. Another 35% to 50% of member assets stay with the recordkeeper, as members often feel too overwhelmed and uninformed to take action with their money. Unlike in the U.K., in Canada, less than 10% of members' assets are used to purchase an annuity.

Canadian DC plan members clearly want advice. According to Benefits Canada's 2012 CAP Member Survey, about half of members said they sought advice on what products and assets to put their money into during their retirement, while 58% said they needed advice on how much they could withdraw annually in retirement. The challenge with the flexible payout approach offered in Canada and other countries is locating sources of unbiased advice. Too often, the only advice readily available to retiring members is from the same financial providers whose products are being offered.

A TALL ORDER

Supervisory Authorities) released *Guideline No. 8: Defined Contribution Pension Plans*. Many plan sponsors will welcome this guideline with relief, as it clarifies and enhances member responsibilities in the management of their DC plans and savings. It makes members accountable for their investment decisions on an ongoing basis and requires them to continually review whether or not their savings will meet their retirement needs and goals.

This relief comes with a price tag, though, as the guideline also calls for increasing the amount of information that plan sponsors must provide to members. Most significant, it requires that sponsors offer retirement income illustrations and clearer information on products available for the payout phase.



Since the first step in effective payout is ensuring that members understand how much retirement income their accumulated savings can provide, the requirement to provide income illustrations is key. Countless surveys in recent years have indicated that many members don't know how much they need to save in order to pay themselves an adequate replacement income over a typical retirement span. Ongoing income projections offer members a regular opportunity to see what their accumulated savings would translate into as retirement income. It also ensures that members have the opportunity to increase their saving levels or adjust their retirement expectations to align with their projected retirement income.

Just as important is the requirement in *Guideline No. 8* that plan sponsors offer members information on payout products that will "allow them to make informed decisions which strike a balance between protection from the risks inherent in the various products and achieving target replacement rates." This will include

reviewing the risk characteristics and fee structures of payout products along with methods to receive the payout, the expected levels of payout and the duration of the payout each product will provide.

Both of these new expectations put the onus on plan sponsors to carefully evaluate who is best positioned to provide this information to members. Sponsors will have to invest time and effort in reviewing the information they currently provide to members and understanding any biases that may be present. Plan sponsors may also need to take a more active role in the creation and distribution of this information, with less reliance on the recordkeepers.

INCH BY INCH

While changes in the U.K. have come by way of radical legislation, Canada's have come in the form of voluntary guidelines. Both have the potential to greatly improve the DC experience for their respective citizens. But both countries have more work ahead of them to ensure that members have access to unbiased information and an appropriate range of products for the payout phase.

Innovation in product development should focus on making sure members can choose from creative solutions that offer longevity protection and certainty of income, yet also include an element of flexibility. These products need to be priced fairly. And, while they may be very technically sophisticated, they need to be packaged in a way that allows the average member to understand the features and benefits. This includes products now being developed that can be offered during the saving phase and transitioned into the payout phase, giving members the benefit of seamless solutions that are made cost-effective by the plan sponsor's involvement.

With a significant number of employees set to retire in the coming years—nearly one in four working

Canadians, according to Statistics Canada—*Guideline No. 8* is a necessary step to move more Canadians along the path toward adequate retirement income. For the many sponsors that transitioned from DB to DC plans in an attempt to shed pension income obligations, the demand for more DC plan sponsor involvement inherent in *Guideline No. 8* may initially be seen as unwelcome. But the success of DC pension plans hinges on the ability to move members through both the saving and payout phases—and the plan sponsor has a central role to play as fiduciary and unbiased intermediary in both.

A DC pension system that does not address the payout phase opens the door to a potentially huge—and negative—impact on an employer's bottom line. Workers who are financially unprepared or unable to retire will drive up costs on many fronts, including higher salaries and health benefits costs; decreased productivity from unengaged employees who want to retire but can't afford to; and demotivated younger employees who see few opportunities to move into jobs that continue to be occupied by senior workers. As Alan Higham of Fidelity told *The Guardian* about the U.K. pension changes recently, "The stakes are higher than ever—there is more to gain, and more to lose." □

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ASTIN and AFIR/ERM Colloquium

Innovation & Invention

23-27 August 2015 | Amora Hotel Jamison Sydney



Call for Papers

The Actuaries Institute invites you to attend the Colloquium of the International Actuarial Association to be held in Sydney, Australia, from **23 to 27 August 2015**. This colloquium is a joint collaboration of two IAA sections, the Actuarial Approach for Financial Risks/Enterprise Risk Management (AFIR/ERM) and Actuarial Studies in Non-Life Insurance (ASTIN).

Further details of the Colloquium can be found at www.actuaries.org/sydney2015/

Innovation and Invention

Australia has a long and proud history of innovation and invention in many scientific and practical disciplines. Here are some examples:

- ▶ Whilst Fleming discovered the antibacterial properties of penicillin in his London laboratory, it was a team led by the Australian researcher Howard Florey that purified the strain and demonstrated its efficacy in humans. Australia was the first country to mass-produce the wonder drug for non-military use.
- ▶ In 1961, chemist Dave Warren joined an Australian team investigating a series of plane crashes. He came up with the idea of the black box flight recorder and developed a prototype in Australia. Today every commercial plane carries a flight recorder.
- ▶ In 1836 the HMS Beagle began its survey of Australia, carrying the young naturalist Charles Darwin on board. Darwin's specimen collections and observations from Australia and around the world provided strong evidence for his theory of evolution published in 1860.
- ▶ Robert Brown the Botanist who gave Brownian motion its name spent several years in Australia discovering new plant species.

Sydney and Australia

The site of the first European settlement in Australia, Sydney has something to offer any visitor, including:

- ▶ Visit the Sydney Opera House;
- ▶ Climb to the top of the Sydney Harbour Bridge.
- ▶ Explore the shops, pubs and restaurants of The Rocks or Darling Harbour.
- ▶ Take a ferry trip to the Taronga Zoo or Manly.
- ▶ Visit the Museum of Contemporary Art Australia, the Australian Museum or the Art Gallery of New South Wales.
- ▶ Just relax and learn to surf at Bondi Beach.

The Blue Mountains, a World Heritage area, and the Hunter Valley wine region are only a day trip from Sydney. Further afield are the natural wonders of the Great Barrier Reef, the Great Ocean Road, Uluru, and the Kakadu National Park. The Colloquium is the perfect excuse for an extended trip to see Australia!

Sydney Harbour Bridge and Opera House



The Three Sisters, Blue Mountains



Call for Papers

Synopsis Deadline:
27 February 2015

Draft Program Released:
27 March 2015

Paper Submission Deadline:
15 April 2015

Acceptance Deadline:
15 May 2015

Published on Website:
29 May 2015

Registration to open in February 2015

Submissions

ASTIN and AFIR/ERM final papers should be sent to:
events@actuaries.asn.au
by 15 April 2015.

Contacts

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Amora Hotel Jamison Sydney



ASTIN and AFIR/ERM Colloquium

Innovation & Invention

23-27 August 2015 | Amora Hotel Jamison Sydney



Topics for AFIR/ERM

The ASTIN Scientific Committee seeks papers on the following topics:

- ▶ Loss reserving and capital adequacy
- ▶ Insurance pricing and price optimisation
- ▶ Predictive modelling and business analytics
- ▶ Reinsurance and risk transfer
- ▶ Risk management
- ▶ Natural hazards and disaster pricing
- ▶ Capital management, allocation and pricing
- ▶ Longevity, health and employment insurance
- ▶ Risk theory
- ▶ Dividend theory and practice
- ▶ Copulas: theory and applications

Topics for AFIR/ERM

The AFIR/ERM Scientific Committee seeks papers in the areas of finance, financial economics, and the management of financial risks, focusing on applications to insurance and pension funds. Specific topics of interest are:

- ▶ Investment and asset allocation
- ▶ Portfolio risk management
- ▶ Bond portfolio management
- ▶ Asset/Liability Management (ALM)
- ▶ Enterprise risk management (ERM)
- ▶ Risk measures and capital allocation
- ▶ Managing retirement accumulations and decumulations
- ▶ Dynamic asset allocation
- ▶ Asset and derivative pricing
- ▶ Longevity, health and mortality risk
- ▶ Pricing and risk management for product guarantees
- ▶ Solvency and risk based capital

Guidelines for papers for both ASTIN and AFIR/ERM

1. Synopsis submissions need to be submitted in the required [Synopsis Template](#) and submitted to events@actuaries.asn.au by **27 February 2015**.
2. Completed papers need to be submitted to events@actuaries.asn.au by the **15 April 2015**. **Paper extensions will not be granted.**
3. All papers need to be submitted with a paper **Coversheet**. The main text should start on page 2. Pages must be numbered. References must be organized alphabetically, multiple references for a single author must be ordered chronologically. Journal references must include author, year, title, journal title, volume and pages. Book references must include author, year, title, editor and city. For more details, refer to the [Paper Guidelines](#).
4. Papers should be written in English and must be received by the closing date. All papers must be submitted electronically in PDF format.
5. If you do not receive an email acknowledging receipt of your paper by **15 May, 2015** please contact events@actuaries.asn.au
6. Submitted papers will be evaluated by the Scientific Committees, and acceptance of the papers will be confirmed no later than the acceptance date.
7. A list of accepted papers, and the final accepted papers will be posted on the website.

Hunter Valley, NSW – wine region



Sydney's iconic Bondi Beach



Great Barrier Reef, Queensland





A.K.M. Elias Hussain, is president of the Actuarial Society of Bangladesh. He can be reached at presidentasb@hotmail.com.

The Actuarial Profession in Bangladesh

By A.K.M. Elias Hussain

Bangladesh has a rapidly developing market-based economy. Its per capita income in 2010 was an estimated US\$1,700 (adjusted by purchasing power parity). According to the International Monetary Fund, Bangladesh ranked as the 44th largest economy in the world in 2011 in PPP terms and 57th largest in nominal terms. It is among the Next Eleven (or N-11) of Goldman Sachs and the D-8 economies, with a gross domestic product of US\$269.3 billion in PPP terms and US\$104.9 billion in nominal terms. The economy has grown at the rate of 6 to 7 percent per annum over the past few years. More than half of the GDP is generated by the service sector; while nearly half of Bangladeshis are employed in the agriculture sector.

Higher education institutions in Bangladesh include 34 public universities, 56 private universities, two international universities, 31 specialized colleges, and two special universities. Unfortunately, no university in Bangladesh conducts an actuarial education program.

The Actuarial Society of Bangladesh (ASB) was founded on July 7, 2007 with the view to create and develop actuarial education facilities in the country with the help and assistance of other actuarial educational organizations of the world.

The objectives of the ASB are:

- a. To promote the standing of the actuarial profession in Bangladesh, and to raise the public esteem of the profession.
- b. To serve as a reference source on actuarial matters for the government of the People's Republic of Bangladesh, regulatory authorities, and other interested bodies.



- c. To take such action as a society as may be agreed upon at a General Meeting of the ASB in respect of any matter that is relevant to the actuarial profession.
- d. To promote the study and discussion of research into and the publication of matters relating to
 - i. The application of actuarial, economic, financial, and statistical principles to practical problems.
 - ii. The actuarial, economic, and allied aspects of insurance, employee retirement benefits, social security, finance, and investment as well as any other areas where actuarial principles are applicable, with particular reference to Bangladesh.

- e. To assist students in the course of their actuarial studies and to provide and promote Continuing Professional Development (CPD) programs for the members of the ASB.
- f. To foster and encourage professional relationships amongst actuaries within Bangladesh and internationally.

The ASB is regularly assisting students in Bangladesh and also conducting counseling classes to help prepare for the professional examinations. The kind assistance of ASB volunteers for providing resources for conducting class presentations in Bangladesh was of great help to the students.

In spite of the growth of the insurance industry and other financial institutions in Bangladesh, there is an acute shortage of qualified actuaries in the country. As a result, most of the organizations outsource actuarial services. At present, there are only one fellow and two associate actuaries in Bangladesh. However, a good number of candidates are pursuing the professional examinations offered by the Institute and Faculty of Actuaries in the United Kingdom organized locally by the ASB. Some other candidates are pursuing professional examinations from the Institute of Actuaries of India organized by the Bangladesh Insurance Academy.

Very recently, the Insurance Development Regulatory Authority (IDRA) of Bangladesh introduced actuarial departments in life insurance companies. Most of the partly qualified students joined these companies to work while taking professional examinations. Pursuing actuarial examinations from Bangladesh is a great challenge due to the high cost of examinations, as well as the high cost (and lack) of study materials and tutorials. Given the circumstances, it is a great

pleasure that the Actuaries Without Borders (AWB) Section of the International Actuarial Association has come forward to provide volunteers to prepare the students for examinations which has given a high degree of momentum to a country like ours.

ASB is now planning to establish a formal program of actuarial study. However, there is a big challenge of having resources for conducting actuarial classes in our country. Hiring personnel from nearby countries will involve high costs. In this stage, if AWB is able to help ASB by providing volunteer resources, this effort can be fulfilled and the scope of actuarial education in Bangladesh can be greatly developed.

The actuarial profession in Bangladesh has huge potential, as at present 18 life and 42 non-life insurance companies are operating with more life insurance companies soon to be approved for business. Financial markets are also expanding, which will create more avenues for actuarial services. With the right support—such as mentorship, professional and skills development, and motivation—the sky is the limit for the actuarial profession in Bangladesh. □



Carl Hansen, FSA, FCA, MAAA, is international director at BWC Group in Guernsey in the Channel Islands. He can be reached at chansen@bwcigroup.com.

2014 International Congress of Actuaries

By Carl Hansen

Actuaries from all over the world gathered in Washington, D.C. for the 2014 International Congress of Actuaries (ICA) from March 30–April 4. The event drew more than 1,300 participants from nearly 110 countries and territories. While Washington D.C.’s famous cherry blossoms failed to make an appearance during the week (and it even snowed one day!), the business and social activities were still a success. The ICA is held every four years in various locations around the world—past host cities include Paris in 2006 and Cape Town in 2010.

The 2014 Congress was hosted by the five U.S. actuarial organizations:

- American Academy of Actuaries
- ASSPA College of Pension Actuaries
- Casualty Actuarial Society
- Conference of Consulting Actuaries
- Society of Actuaries

The International Actuarial Association (IAA) serves as overall coordinator for the event. The IAA is the worldwide association of professional actuarial associations (such as the SOA), with a number of special interest sections for individual actuaries. The IAA encourages the development of a global actuarial profession, acknowledged as technically competent and professionally reliable, which will ensure that the public interest is served. You can get more information from the IAA website (www.actuaries.org).

Those in attendance were woken up early in the opening plenary session on Monday thanks to the sights and sounds of the Howard University marching band.



Howard University Marching Band performs at the Opening Ceremony.

Those of us in the front row were even more awake! Plenary sessions during the week were:

- Dr. Jay Olshansky – The Longevity Dividend: Altering the Future Course of Health and Longevity?
- Senior executives from Towers Watson, Swiss Re, RGA Reinsurance Company, Resolution



Welcome reception at the Smithsonian Museum of American History.



Attendees browse the ICA program.

Group, and AIG – The Insurance Industry CEO Perspective: Navigating the Changing Business Landscape

- Dr. Paul Embrechts – Uncertainty
- Dr. Guntram Werther – Improved Forecasting through a Different Focus

Many of the delegates submitted papers in advance of the meeting on a wide variety of subjects, with some authors invited to present their topic during individual sessions. These presentations formed the basis for the parallel sessions during most of the ICA, with something of interest for everyone in attendance regardless of actuarial discipline or type of employer.

Social activities were sprinkled throughout the week, giving opportunities to become better acquainted with each other. The week was kicked off with a Welcome Reception at the Smithsonian Museum of American History Sunday night. Delegates and guests could sample some typical American foods while viewing exhibits on U.S. history and culture. On Tuesday and Thursday afternoons, those in attendance could choose from group tours to learn more about the Washington, D.C. area. Thursday night was the gala reception and dinner at the hotel.

More information on the ICA, including details on sessions and speakers, is available on the 2014 International Congress of Actuaries website (www.ica2014.org).

You can start to plan now for the 2018 International Congress of Actuaries in Berlin, Germany from the 4th to the 8th of June. Follow developments at www.ica2018.org. □

Sun, Sea and CPD!
Caribbean Actuarial Association 24th Annual Conference
December 3-5, 2014



The conference is the premier event on the calendar for actuaries practicing in the Caribbean. This year's conference focuses on some of the key issues facing professionals in the financial services industry internationally and regionally.

Life insurance, pensions, general insurance and risk management topics are covered in technical presentations and panel discussions which encourage lively debate. These areas are discussed from regional and international perspectives by our slate of well-known and experienced presenters.

Hilton Barbados Resort, the venue for our 2014 Conference, is just 5 minutes away from the island's capital Bridgetown and lies on Carlisle Bay, a natural harbour. Historic Bridgetown and its Garrison are a UNESCO World Heritage Site.

There is lots to do in Barbados at that time of the year including the Run Barbados series of races that start on December 5 and finish on December 7, 2014.

We look forward to welcoming you to Beautiful Barbados, Gem of the Caribbean Sea.

For more details, please visit our website at www.caa.com.bb.



IACA, LIFE AND PBSS COLLOQUIUM

**OSLO
2015**
JUNE 7 - 10



Grand Hotel Oslo, Norway

Den norske Aktuarforening invites you to attend the Colloquium of the International Actuarial Association to be held in Oslo, Norway, from the 7th to the 10th of June 2015. The colloquium is a joint collaboration of three IAA sections: Consulting Actuaries (IACA), Life Insurance (LIFE) and Pension Benefits and Social Security (PBSS)

Our call for papers describes the present state of pensions and life insurance as rather turbulent and lists a number of issues that serve to shape the prospectus of the colloquium. Hopefully it will inspire many of you to write a contributed paper and many more of you to attend and participate in the discussions in Oslo June 7-10, 2015. Enjoy the bright summer nights in the little city with the big heart!

Call for Papers

'Issues in our time'

A relatively short period in the history of insurance, the past some three decades have seen life insurance and pensions undergo major changes driven by multiple and interacting forces. The following list of keywords is probably noncontroversial, but emphasis and pros and cons may be debatable. Deregulation in the eighties. Financial innovation and emergence of huge derivatives markets. Growth in volume of trades, increasingly research- and technology-driven. Financial instability culminating in the on-going crisis. In life insurance and pensions: Demutualization, dissolution of portfolios, increasing mobility of insurance contracts (buy-outs, individual and bulk), surrenders and free policies. The traditional with profit scheme gave way to a plethora of products equipped with various forms of guarantees. Hence risk management increasingly based on market operations: reinsurance, swaps, securitization. Pension crisis triggered by faltering markets and improved longevity. Occupational schemes moving from defined benefits to defined contributions. Renewed interest in with profit? Or seek new ways of adapting premiums and benefits to indices for interest and mortality? Risk classification driven by technology (gene tests) or legislation (gender neutrality). Disability and long term care in an ageing population. Reintroduction of regulation. Solvency II, IFRS, external models vs internal models/ORSA. Valuation of assets and liabilities (what is MCEV?). Furthermore: consolidation, globalization, emergence of insurance markets in developing countries. And, not least, the impact of advances in the mathematical theories of finance and insurance and their interface.



**OSLO
2015**
JUNE 7 - 10



About Oslo

“The Blue the Green and the Capital in between”

Oslo is situated at the head of Oslo Fjord surrounded by forested ridges, and this very location gives the city unexpected qualities for a national capital. The surrounding countryside provides recreational opportunities for the city’s inhabitants and visitors, in summer as well as in winter. Not many world capitals offer subway service to the forest, with lakes and hiking trails within city limits.

Oslo has a population of only 600 000, which is relatively low compared to most European capitals. However, it is paradoxically one of the largest in terms of area. Oslo covers more than 450 square kilometers, most of which comprises forests and arable land.

Oslo is a city full of contrasts. Its natural beauty, in combination with all the facilities of a modern metropolis, adds to the charm of a city often called “the world’s biggest village”.

More modern districts include the bustling Aker Brygge area, a rehabilitated old shipyard, with its Mediterranean style shops, restaurants and cafés. Oslo’s beautiful natural surroundings, its varied architecture, and its multinational inhabitants contribute to the city’s unique atmosphere.

And Oslo’s climate is actually better than our northern latitude might indicate. This is due to the Gulf Stream bringing warmth from the Gulf of Mexico across the Atlantic Ocean and along the coast of Norway. And in the summer, the sun is up 19 hours per day.

Important Information

Best Paper Awards

The LIFE and PBSS Sections are granting two prizes of CAD 1000 each, one to the author(s) of the best LIFE paper and one to the author(s) of the best PBSS paper. The winners will be selected by the Scientific Committee and be announced and awarded their prizes during the Colloquium.

Call for Papers

Synopsis Deadline: 31 January, 2015

Draft Program Released: 28 February, 2015

Paper Submission Deadline: 31 March, 2015

Acceptance Deadline: 15 April 2015

Presentation File Deadline: 31 May 2015

Registration to Open: Autumn 2014

Keynote Speakers

- Professor An Chen, University of Ulm, Germany
- Managing director Idar Kreutzer, Finance Norway, Norway
- Professor Antoon Pelsser, University of Maastricht, The Netherlands
- Professor Mogens Steffensen, University of Copenhagen, Denmark

Contact Information

For more information about submissions or papers please contact oslo2015@ccnorway.no or visit www.actuaries.org/oslo2015





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Risk, Challenges and Opportunities

12-15 October 2014
Taipei International Convention Center, Taipei Taiwan

Come join us. Register NOW!

Deadline for Early Registration : **31 July, 2014**
Deadline for Regular Registration : **15 September, 2014**

www.actuariesasia.org

18th EAAC Conference Secretariat
Mail: 2014EAAC_Secretariat@aict.org.tw



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