

Introduction and Section News

- **3 Editor's Note** By Qi Sun
- **4 Chairperson's Corner** *By Vincent Xuan*
- 6 Newly Elected Section Council Members
- **10** An Actuary Walks Into a Bar By Wendy Kwan
- 11 2017 Country Feature Article Call for Papers Winners Announced

2017 Article Contest

12 An Island Paradise: The Country with the Most Actuaries per Capita By Graydon Bennett

Asia

- 15 Vietnam Actuarial Community Seminar – October 2017 By Milanthi Sarukkali
- 16 Professionalism in Actuarial Practice Including a Case Study with an International Perspective

By Jules Gribble and Milanthi Sarukkali

Middle East and Africa

- 20 The CIMA Market: Insurance in French-Speaking Sub-Saharan Africa By Renata De Leers
- 24 Actuaries Around the World: Sudan
- **27** Actuary = Risk-Averse?

 By Queenie Chow

Europe

30 Actuarial Development in Bulgaria By Carlos Arocha

Americas

- **33** Actuarial Professionalism Course in Bogota, Colombia
 By Edward L. Robbins
- 34 Celebrating a Prominent Actuary: The Hon Daisy McFarlane Coke By Cathy Lyn

An Island
Paradise: The
Country with the
Most Actuaries
per Capita

By Graydon Bennett

Page 12

International News

Issue Number 73 • January 2018

Published by the International Section Council of the Society of Actuaries.

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 webpage at http://www.soa.org/International/

This publication is provided for informational and educational purposes only. Neither the Society of Actuaries nor the respective authors' employers make any endorsement, representation or guarantee with regard to any content, and disclaim any liability in connection with the use or misuse of any information provided herein. This publication should not be construed as professional or financial advice. Statements of fact and opinions expressed herein are those of the individual authors and are not necessarily those of the Society of Actuaries or the respective authors' employers.

Copyright © 2018 Society of Actuaries.
All rights reserved.

Publication Schedule

Publication Month: May 2018 Articles Due: Feb. 15, 2018

2018 SECTION

Officers

Vincent Xuan, FSA, MAAA, Chairperson Wendy Kwan, FSA, Vice Chairperson Susan Mateja, FSA, MAAA, Secretary Yanjie Feng, FSA, MAAA, Treasurer

Council Members

Arpita Das, FSA, FSAI, Council Member Heather Ingram, FSA, ACIA, Council Member Milanthi Sarukkali, FSA, Council Member Ken Seng Tan, ASA, CERA, Council Member James Xu, FSA, FCIA, Council Member

Newsletter Editors

Arpita Das, Co-Editor-in-Chief arpita.das@allianz.com

Qi Sun, Co-Editor-in-Chief qi.q.sun@prudential.com.hk

Milanthi Sarukkali, South Asia milanthi@gmail.com

Wan-Yi Huang, Canada wan-yi.huang@cra-arc.gc.ca

Timothy Paris, Caribbean timothyparis@ruark.co

Carl Hansen, Europe chansen@bwcigroup.com

Carlos Arocha, Europe ca@ArochaAndAssociates.ch

Gordon Garfield, East Asia ggarfield@rgare.com

Jessica Chen, Latin America and USA jqcinsf@gmail.com

Boaz Yam, Middle East and Africa boaz@ogen.co.il

Jing Fritz, USA Jing.fritz@transamerica.com

SOA Staff

Kathryn Baker Staff Editor kbaker@soa.org

Ben Marshall, FSA, FCIA, CERA Staff Partner bmarshall@soa.org

Jane Lesch Section Specialist jlesch@soa.org

Erin Pierce Graphic Designer epierce@soa.org

Editor's Note

By Qi Sun

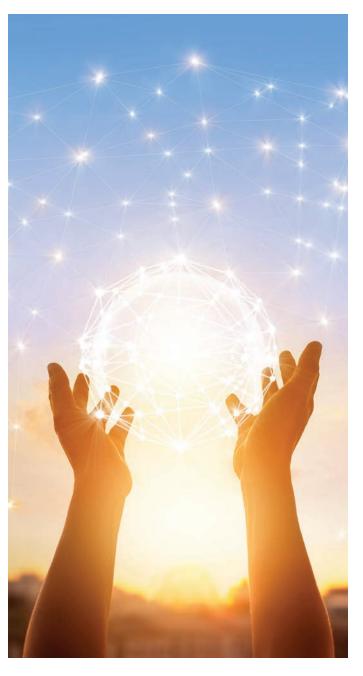
Welcome to the first 2018 issue of International News.

rpita and I have been keen to create a platform where our readers can be informed of the changing global landscape around us, as well as getting exposure to diverse cultures and developments of local actuaries in different continents. This issue has 10 articles contributed by 11 authors. They cover many actuarial societies' activities in countries around the globe. This level of sharing, and advancing the profession, is an excellent way to keep the actuary adaptable in this rapidly changing world.

It is my pleasure to announce the 2017 Country Feature Article Call for Papers winner, Graydon Bennett with "An Island Paradise," and the runner-up, Ronald Klein with "Lifetime Annuity Income is the Key to Life." Many thanks to all authors who submitted their articles for the 2017 contest. Starting with this issue, we will publish the winning papers and a few other selected excellent articles. In this one, Graydon educates us on Guernsey, a country with the most actuaries per Capita, and why he thinks Guernsey is a paradise for actuaries.

Many thanks to all authors who submitted their articles for the 2017 Country Feature Article Contest.

As you can see, this issue is another great collection of articles—and we do hope to see one from you. Please send us your ideas for something new, fun and inspiring. If you are a bit unsure about how to get started, feel free to contact any of our editorial board members and they will guide you through the process. Even better, if you are considering joining as volunteer editor, please contact Arpita or myself. We encourage you to volunteer and help our section to be an even greater success.



In conclusion, I would like to give a special thanks to all 2017 Country Feature Article Call for Papers contest participants, our authors, newsletter editors, and SOA staff for all the hard work they do so we can all enjoy this publication.



Qi Sun, FSA, CFA, is a regional actuary at Prudential Corporation Asia. He is based in Hong Kong and can be reached at qi.q.sun@prudential.com.hk.

Chairperson's Corner

Bv Vincent Xuan

riting this article for International News feels like meeting an old friend; a friend that I always enjoy learning from and staying connected with. Let me take this opportunity to share a personal story.

Back in 2012, inspired by my mentor who is a dedicated volunteer at the SOA, I volunteered to be an assistant editor of the newsletter. The International Section's newsletter was my first choice, as I am naturally curious about the practices and lives of actuaries in other countries. After serving for a few years, I received an email from the lead editor asking if I wanted to take on his job. After some thought, I accepted. This proved to be a great decision. Although the position required more time, those well-baked newsletters made my efforts well spent. Running the newsletter was an eye-opening experience, and I started to think about getting more involved with council activities. Two years ago, I ran for and won a seat on the council. I then took a new role as the treasurer, and then vice chair, and now the chair. Although I passed my torch at the newsletter to the two co-lead editors, Arpita and Qi, I still remain emotionally connected with this publication.

I have found that volunteering with the International Section has been a rewarding and inspiring experience. I've encountered numerous talented actuaries from Africa, South America, Asia, Europe—and many other places on the globe. Their personal experience and professional insights made my job fun and meaningful. I certainly learned tremendously from the other volunteers, and had great opportunities to build my leadership skills as well as my professional network.

I'd like to issue a "Call of Duty" to all of our International Section members. I encourage you to think about the ways you can participate in our section activities. This can be through writing articles for the newsletter, organizing a local social event, hosting a webinar, or contributing to a research project. I welcome your thoughts! Please feel free to contact me (xu.xuan@prudential.com) or our section specialist Jane Lesch (jlesch@soa.org) with any thoughts or ideas that will help grow and enhance our community.

As the new chair, I look forward to the challenges and opportunities of the coming year. We are in a solid position to



further enhance membership value and services, and many new initiatives are already underway. Recently, our new vicechair Wendy Kwan hosted our first networking event in New York City with the Entrepreneurial & Innovation Section (see her write up in this issue). The event was a blast, and we will continue to expand this well-received networking program to other cities around the world.

Success cannot be accomplished without a dedicated team of council members and staff partners. As a result of our recent elections, I am proud to announce the following new appointments: Wendy Kwan (vice-chair), Susan Mateja (secretary), Yanjie Feng (treasurer), and Arpita Das (council member for a new 3-year term and a co-lead editor for the newsletter). Milanthi Sarukkali, Heather Ingram, Ken Seng Tan, and James Xu will continue to serve as council members for various ongoing initiatives. I look forward to a continued strong partnership with our staff partner Ben Marshall and section specialist Jane Lesch. Finally, I'd like to extend my sincere appreciation to all the wonderful work from past chair Graydon Bennett and council member Quintin Li. Your contributions were invaluable and directly impacted our success over the past year.

This year will provide many exciting opportunities for our section. With your active participation, we can make it a truly prosperous, rewarding and enjoyable place for international actuaries!



Vincent Xuan, FSA, MAAA, is vice president and actuary at Prudential Financial. He is based in Newark, New Jersey and can be reached at xu.xuan@prudential.com.



Section Membership Pays for Itself

With 20 sections to choose from, you're bound to find one that covers topics related to your current position or future interests.

New in 2018, section members will get \$25 off most webcasts that are sponsored by their section!

Section Benefits



Join a section today! Visit SOA.org/Sections.



Newly Elected International Section **Council Members**

Arpita Das, FSA, FSAI Council Member Allianz Worldwide Partners Health & Life Dublin, Ireland



PROFESSIONAL BACKGROUND

Arpita Das is a life & disability senior actuary at Allianz Worldwide Partners (AWP) based in Dublin, Ireland. She has been in her current role for two years where she manages a range of projects on life, disability and general insurance including reserving, experience studies, modelling, product and contract review. She works across a range of regulatory regimes (Qatari, Irish, German, French), accounting regimes (IFRS, Solvency II, US GAAP, French GAAP) and with teams based in Dublin and across Europe.

Prior to her move to Ireland, she was corporate vice president & actuary at New York Life Insurance in New York, NY. She began her actuarial career at New York Life and over her seven years there she worked in various areas including pricing, risk management and product development.

Arpita graduated from Swarthmore College with a B.A. in Mathematics. She is a fellow of the Society of Actuaries and a fellow of the Society of Actuaries Ireland. She is a member of the Actuaries Without Borders section of the International Association of Actuaries.

SOCIETY OF ACTUARIES EXPERIENCE

- Council member since February 2017 (partial term until October 2017)
- Co-editor of International News since August 2016
- Editorial board member of International News since July 2015

OTHER RELEVANT VOLUNTEER EXPERIENCE

Arpita's volunteering interests lie in the areas of actuarial education and micro-insurance.

- Project manager and Global Mentorship Committee member, Actuaries Without Borders, since 2015. Managed volunteer projects in Ghana and launched AWB's pilot mentorship program in Sri Lanka which has now expanded globally.
- Kiva Fellow, Kenya, summer 2015. Conducted audits and surveys in rural Kenya on the effectiveness of microfinance and micro-insurance. Actively participated in the Africa Insurance & Reinsurance Conference and other actuarial events in Nairobi.
- Prior to 2015, various volunteering roles in NYC, e.g., Junior Achievement, Women's Network at New York Life, and the Finance Women's Association-Microfinance & Impact Investing Committee.

WHY ARE YOU INTERESTED IN LEADING THE INTERNATIONAL SECTION?

In the last couple of years, particularly since I've moved away from the U.S. to Ireland, the International Section has come to provide a home for me, with a network of like-minded actuaries and a tangible connection to the SOA. I have gained much from the section and I am excited for the opportunity to give back.

It was my international background that initially drew me to volunteer with the section. I grew up moving between the U.S. and India, and have now worked in the U.S., Kenya and across Europe. Through my roles as editor of the newsletter and council member, I have had the privilege of working with many of you, located across the world, and this has been an invaluable experience.

At the same time I have also been in tune with needs of members, particularly those outside the U.S. like myself and those whose daily jobs involve cross-border workings between the constantly changing regulatory and accounting regimes. While we are active as a section, I believe there are opportunities to serve our members in new ways.

Having the knowledge of both the workings of the section and the needs of our members, I am well-positioned to hit the ground running and drive new ideas forward. I look forward to having the opportunity to becoming more deeply involved.

Yanjie Feng, FSA, MAAA Treasurer Prudential Newark, NJ





PROFESSIONAL BACKGROUND

Yanjie is a vice president and actuary at Prudential International Insurance. She started with WellPoint and PacifiCare as a health actuary 22 years ago. Afterwards, she worked as a life actuary while working at CNA and continued to work as a life actuary for AIG, eventually arriving to her current position at Prudential. Her work experience covers life, annuity, investment, and health products. She also worked in different function areas and built strong professional relations in the community. Throughout her career, Yanjie has been blessed to work with many talented actuaries, business partners, and industry peers to meet tough challenges and to solve issues.

SOCIETY OF ACTUARIES EXPERIENCE

- Active member of the International and Financial Reporting sections of the Society of Actuaries and the International Actuarial Association.
- Volunteered for annual meeting & exhibit activities.

- Actively participates in annual SOA meetings and webinars and local actuarial community activities.
- Promotes actuarial profession to my local community by sharing my insights about the profession.

OTHER RELEVANT VOLUNTEER EXPERIENCE

- Participates in company's volunteer activities to support local community.
- Volunteers at local assisted living house and multi-culture day/Asian culture related activities.

WHY ARE YOU INTERESTED IN LEADING THE INTERNATIONAL SECTION?

I think it is my responsibility to serve my actuarial community, to directly involve myself in emerging markets, and to influence the global actuarial community with what I have learned in the past about our robust and constantly evolving environment.

Susan Mateja, FSA, MAAA Secretary Humana Inc. Louisville, KY



PROFESSIONAL BACKGROUND

Susan is a fellow of the Society of Actuaries (FSA) with over 20 years of experience in group health and life insurance. She is currently an actuarial director in Humana's Corporate Finance area. She is proficient in pricing, valuation, financial and management reporting, experience and trend analysis, forecasting, mergers and acquisitions, modeling, and management covering the following products: Commercial Individual and Group, Medicaid, Medicare Advantage, Medicare Supplement, Prescription Drug, and Specialty.

Prior to her actuarial career, she was a teacher/instructor at various high schools and colleges in Kentucky and Indiana.

Susan serves as chair of the American Academy of Actuaries Health Practice International Committee (HPIC). She co-sponsored with the IAAHS and moderated a series of six webcasts, "Exploring Global Health Care Cost Drivers" in 2015 and 2016. Currently, she is promoting, overseeing and co-authoring a series of six articles that will be published in the magazine, Contingencies, called "International Corner."

SOCIETY OF ACTUARIES EXPERIENCE

- Member, SOA International Section (2009–present)
- Member, SOA Financial Reporting Section (2011–2014)
- Member, SOA Health Section (2005–2014)

Spoke at the SOA Valuation Actuarial Symposium (September 2013)

OTHER RELEVANT VOLUNTEER EXPERIENCE

Professional Activities

Member of the AAA Health Practice Council (HPC), 2015-present

Chair of the AAA Health Practice International Committee (HPIC), 2014-present

International Actuarial Association Health Section (IAAHS), 2010-present

Healthcare Receivable RBC Subgroup, 2009-2014 Medicare Part D RBC Subgroup, 2008-2013

WHY ARE YOU INTERESTED IN LEADING THE INTERNATIONAL SECTION?

I am running for a seat on the International Section Council to share my passion and expertise while increasing my knowledge of international insurance. I have been in a similar role as chair of the Academy's Health Practice International Committee (HPIC), and it has been a very rewarding experience. I have certainly received much more than I have given. I would like to see the U.S continue to learn from other countries, while giving from our wealth of knowledge and experiences. We need to thoughtfully strive to promote and incorporate best insurance practices. I am humbled to be considered for this position.

REACH UP TO 28,000 ACTUARIES THROUGH THE SOA

With the SOA's commitment to all practice areas of the actuarial profession and global scope, companies can reach actuaries around the world with a sponsorship at SOA events. Choose from diverse options that fit your company's budget and desired audience

Corporate Sponsorship

Provides companies with an effective and convenient way to gain maximum exposure at the SOA's four largest events, while also offering the flexibility to customize options to better suit your company's needs.

Event Sponsorship

Be prominently featured at the meeting of your choice, across four levels of sponsorship, with an array of benefits giving your company visibility and exposure to actuaries from around the world.

The Actuary Advertising

Targeted exposure to actuaries around the world and in all fields of practice, both in print and electronic versions.

For more information on sponsorship options in 2018, contact *sponsorship@soa.org*.



An Actuary Walks Into a Bar...

By Wendy Kwan

... and has a fantastic evening with his fellow colleagues! At the end of November, the International Section hosted their first happy hour networking event with the Entrepreneurial & Innovation (E&I) Section in New York City. The main purpose of the event was to allow actuaries working in the Greater New York area to connect in a relaxed environment while enjoying a glass of wine or beer with light bites. Roughly 30 actuaries gathered for laughter and merriment at Midtown Manhattan's local watering hole, Draft 55. Attendees traveled from the five boroughs of New York and some even from as far as New Jersey. We are proud to announce that the event feedback from our participants was overwhelmingly positive.

The International Section expects to expand the networking event with other cities in North America as well as co-hosting with other Society of Actuaries (SOA) Sections. The mission of these networking events is to provide a platform where actuaries can make lasting connections with local colleagues. We are looking forward to the next networking event with the E&I Section following the Investment Symposium in March 2018; we hope to see you there!

The event was made possible by several contributors, including Wendy Kwan and Vincent Xu from the International Section, Bill Rearden from the E&I Section, and Pauline Reimer from Pryor Associates. The event also could not have been possible without the help of SOA staff members including Jane Lesch, Michelle Scherer, and Beth Bernardi.



Wendy Kwan, FSA, is an assistant actuary at TriNet. She is based in New York, N.Y. and can be reached at wendy.wskwan@gmail.com.



2017 Country Feature Article Call for Papers Winners Announced

he International Section is pleased to announce the first and second place winners of the 2017 Country Feature Article Call for Papers. This annual competition provides section members a forum to share non-U.S. based experiences, interesting facts or statistics that reflect their country's distinctive qualities.

This year's winners are:



First Place, US \$1,000 "An Island paradise: The Country with the Most Actuaries per Capita" By Graydon Bennett



Second Place, US \$500 "Lifetime Annuity Income is the Key to Life" By Ronald Klein

The winning articles, along with a few other select articles will be published in International News, starting with this issue.

Congratulations to the winners and a great big thank you to all participants.

An Island Paradise: The Country with the Most Actuaries per Capita

By Graydon Bennett

t is a statistic of which we naturally make much fuss. It has oft been repeated, even by a former editor in the vaunted pages of The Actuary, and may well be true. Its truth will depend on your personal definitions of "actuary" (to include students?) and "country" (self-governing Crown Dependencies?). Nevertheless, by any measure Guernsey is quite definitely an island and, I will argue, a paradise—especially for actuaries—however you choose to define the term.

HISTORY

Guernsey is a twenty-five square mile rock off the coast of France and together with its neighbours Jersey and Alderney (and others) comprise the Channel Islands. The islands are legally distinct from the United Kingdom as the Bailiwicks of Guernsey and Jersey are dependencies of the British Crown.



Guernsey enjoys a moderate maritime climate (we still talk about the "Big Snow of 2013"), an abundance of sandy beaches, fine dining and local produce. My own commute to the office is a 10-minute walk and I can be on the beach in five minutes more.

Guernsey also enjoys a rather efficient income tax regime, but I won't say anymore on that subject here.

STRUCTURAL INNOVATION

Guernsey is not only a paradise for the everyman, despite its obvious charms. It is, in particular, a paradise for actuaries. Guernsey has a long history of financial innovation and indeed the first captive insurance company was incorporated here in 1922.

More recently in 1997, Guernsey pioneered the concept of a Protected Cell Company (PCC), comprising a core and appendant cells. The assets and liabilities of each cell are ring-fenced from each other and from the core itself, making the PCC an efficient structure from which to transact certain types of insurance and reinsurance deals. It is worth noting that the cells of a PCC cannot enter into contracts in their own name.

The innovation of the PCC was followed in 2006 with the Incorporated Cell Company (ICC) which is similar in many respects to its ancestor, with the exception that each cell of the ICC is a separate corporate entity with its own board of directors and articles of incorporation. Unlike PCCs, the cells of an ICC can contract in their own name. This reinforces the segregation of assets and liabilities between the cells and improves the protection afforded to creditors by preventing cross-contamination. The assets of one cell are not available to settle the liabilities of another. The ICC also appears to be the preferred vehicle for transacting longevity swaps, of which more will be said later.

Once restricted to insurance and reinsurance entitles, these structures are now commonly used around the world for a variety of industries to segregate assets-notably by marine and aviation companies who might allocate each ship or aircraft to a particular cell. These innovative structures provide the framework by which intellectually stimulating and economically efficient insurance and reinsurance solutions can be implemented, and they provide the local actuary with the opportunity to cut his teeth on more esoteric transactions.

Insurance-Linked Securities

Guernsey has also seen the blossoming of the insurance-linked securities (ILS) market. These vehicles allow insurers and reinsurers to access capital markets by issuing securities where the payoff is linked to a contingent event. The classic example is the catastrophe bond, but other variants have been issued such as the longevity swap and the securitisation of embedded value or reserve funding.

In August 2017, it was announced that a Guernsey-domiciled ILS reinsurance transformer (itself the cell of an ICC) had issued what it believes to be the first ILS security to make use of private blockchain technology. Unfortunately, a description

of blockchain technology is not within the scope of this article but the launch of an "ILSBlockchain" illustrates very well the type of ground-breaking firsts being executed in Guernsey.

While the use of ILS is not unique to Guernsey, it is certainly an active sector of the local finance industry.

LONGEVITY SWAPS

I have mentioned longevity risk twice so far, and with good reason. Guernsey has been the jurisdiction of choice for a number of large longevity transactions. In 2014 the British Telecom (BT) pension scheme executed a £16bn longevity swap with a U.S.-based life insurer through a Guernsey captive. This was followed by a £1.5bn transaction for the MNOPF (Merchant Navy Officers Pension Fund).

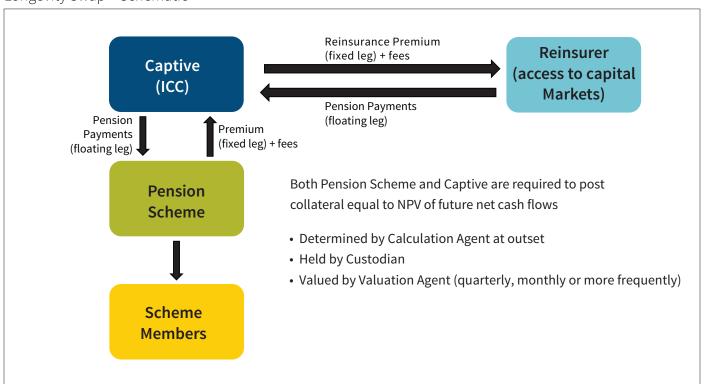
After a brief lull, two more large longevity risk transfers have recently been transacted in Guernsey and were announced in September 2017. The pension scheme for Marsh & McLennan Companies executed a longevity swap via an ICC to hedge the longevity exposure in £3.4bn of pension liabilities and separately, one of British Airways' pension schemes agreed to a deal to hedge the longevity risk inherent in £1.6bn of its defined benefit pension liabilities.

Longevity swaps have become the "hot topic" among the trustees of defined benefit pension schemes who are concerned



about the scheme's exposure to longevity risk. In a longevity swap, the pension scheme exchanges a stream of fixed payments for floating payments equal to the pension payments it is obliged to make. The ultimate counterparty in such a transaction is usually a reinsurer who has access to deep capital markets, extensive mortality data, and possibly whole life mortality risk which can act as a natural hedge! However, as reinsurers are not permitted to transact directly with pension schemes, an intermediary insurance company is often used. In

Figure 1 Longevity Swap - Schematic



many cases the intermediary will be a captive of the pension scheme's sponsor or an ICC used for that express purpose.

The schematic in Figure 1 illustrates a simplified longevity swap structure. The role of the actuary is typically to act as calculation agent and/or as valuation agent for the swap. The calculation agent is an independent third party who determines the value of collateral to be posted at the inception of the swap. Naturally, there will also be separate teams of actuaries advising the trustees of the pension scheme and working for the accepting reinsurer.

In my opinion, the beauty of the longevity swap derives from the opportunity for actuaries, lawyers, trustees, and insurance managers to all work together on a complicated and multi-faceted problem. It's a great example of the cross practice nature of actuarial work being performed in Guernsey.

PENSION REFORM

And while we're on the subject of occupational pensions, it is worth noting that Guernsey's government has approved in principle the creation of a secondary pension scheme, with a target launch date of 2020. The aim of the secondary pension scheme is to provide a retirement savings vehicle for those who do not have access to an occupational scheme. Contributions will be paid by both employers and employees into an individual's account to supplement the state pension and any private savings in retirement.

The local government has also introduced new pension legislation which took effect in June 2017, with additional reporting and disclosure requirements. It is without a doubt an interesting time to be an actuary in Guernsey and there is no shortage of challenging work at the forefront of international finance—so keep your pencils sharp!

PROFESSIONAL DEVELOPMENT

It would be remiss of me not to say a few words about the local actuarial profession itself. We are fortunate to have a local professional body, the Channel Islands Actuarial Association (CIAA) which hosts meetings almost every month. Guest speakers are invited from across the U.K. and Europe to address topics relevant to actuaries practicing in insurance (both life and general), pensions, investment, and risk management. The CIAA is itself a regional society of the Institute and Faculty of Actuaries in the U.K., and a full member of the Actuarial Association of Europe.

CONCLUSION

Guernsey is an island of rich history but also of cutting-edge innovation. We have long sandy beaches, warm summer evenings, and a plethora of esoteric insurance structures to keep almost any actuary interested and engaged. I trust that I have adequately demonstrated just how idyllic my little island is, but if you require further proof, consider that almost everyone on Guernsey not only knows what an actuary is, but probably knows one personally. A la perchoine!



Graydon Bennett, FSA, is a senior manager with BWCI Group. He is based in Guernsey in the Channel Islands and can be contacted at gbennett@ bwcigroup.com.

Vietnam Actuarial Community Seminar – October 2017

By Milanthi Sarukkali

lietnam is an emerging market with rapid growth in the insurance sector. The insurance market consists of large global insurance providers and a few local companies as well. The rapid growth in the insurance industry has prompted the development of an actuarial community, to bring together experienced professionals for the development of the profession in Vietnam.

The Vietnam Actuarial Community was founded in 2016. Their mission is to promote the profession in Vietnam and lead to the establishment of a recognized actuarial society. This community of actuaries is aiming to establish a risk management culture within financial institutions in Vietnam. Members of the Vietnam Actuarial Community have diverse backgrounds and skill sets, which uniquely positions them to effectively provide risk management advice within the financial sector.

Endeavoring to support the insurance sector development in Vietnam, the Vietnam Actuarial Community, in collaboration with the Ministry of Finance of Vietnam, recently organized a two-day seminar focusing on Risk Based Capital and general actuarial topics in both life and general insurance.

Day one of the seminar was under the theme **Implementation** of a Risk-Based Capital Framework: Benefits and Challenges from Early Adopters' Perspectives. The objective of this seminar was to understand the requirements, benefits and challenges of a risk-based capital framework, and how such a framework can be adopted in a local setting. There were several presentations that discussed current solvency regimes in different regions and their evolution. Panelists from Singapore, Taiwan and Sri Lanka discussed their experience in implementing risk based capital frameworks in each country as case studies and highlighted the benefits and challenges of implementing such a framework. The topics discussed also included the importance of developing human capital, especially actuarial skills in order to successfully transition to a risk-based capital regime.



Seminar presenters and members of the Vietnam Actuarial Community

On day two, the seminar was conducted under the theme Adopting Generally Accepted Actuarial Methodologies in a Local Setting, with the topics related to life and general insurance scheduled as half-day sessions. The life insurance topics included population aging, impact of low interest rates, universal life products and IFRS 17. Motor and health insurance pricing, and reserving in health insurance were discussed in the general insurance session.

The seminars were organized for the benefit of the members of the Vietnam Actuarial Community and representatives of the Ministry of Finance. It brought together speakers from Taiwan, Singapore and Sri Lanka, and was an excellent opportunity for networking among professionals within the region. The presentations were followed by active dialog among the audience and the speakers.

The Society of Actuaries is engaged with the Vietnam Actuarial Community in many ways. Several members of the Vietnam Actuarial Community hold credentials from the SOA, with a larger pool of candidates. I was honored to represent the SOA at the seminar to speak on the SOA education framework and credentials, and how the SOA supports the development of the profession through education and research. We also briefly discussed the special interest sections of the SOA and the opportunities they provide for networking and continuous learning, which is instrumental for the development of the profession in emerging markets.



Milanthi Sarukkali, FSA, Ph.D., is the founder and principal consultant at SPARK Actuarial & Risk Consultants. She is based in Colombo, Sri Lanka and can be reached at milanthi@sparkactuarial.

Professionalism in **Actuarial Practice** Including a Case Study with an International Perspective

By Jules Gribble and Milanthi Sarukkali

rofessionalism is an important aspect of any actuary's career. Actuarial associations around the world have their own codes of conduct, adapted to the work environment and requirements in jurisdictions in which their members practice. However, the core objectives of these codes of conduct and the expectations on actuaries following them remain consistent.

What distinguishes professions from each other and from other occupations is their values, as represented through their professionalism.

In a new series of articles, we will discuss some aspects of professionalism as they may affect actuaries and then provide hypothetical case studies. This highlights some challenges that may be faced by actuaries working internationally where, in some instances, direct application of their code of conduct may be difficult. We encourage readers to reach out to us with their perspectives on the case study presented, which we will incorporate in the subsequent articles.

These articles are based on a presentation made by the authors at the International Actuarial Association Asia Subcommittee Regional Seminar held in Colombo, Sri Lanka on July 14, 2017. Some of the points to consider following the case study reflect audience feedback received.

WHAT IS PROFESSIONALISM ABOUT?

There is a large amount of literature that investigates professionalism and professions in detail. The key themes naturally apply to the actuarial profession. There are multiple meanings of the words "professional" and "professionalism." Here we are using these words in the context of a "learned society." Historically (going back to medieval times), in western countries in particular, there were three learned professions—divinity, medicine and law.1 While this is certainly not the case now many more professions have been established (including the actuarial one)—some of the concepts and expectations of this history continue on. This moves past some other meanings, such as simply "getting paid" (for example, think of the "Olympic ideal" that lauded the amateur for pursuing a sport for the love of it in contrast to opinions that may, at least historically, have been held about "professional" sports people). It carries deeper implications than "having a trade or occupation," even when the trade or occupation may be well carried out.

Here, we skim the surface of this deep pool and make some high level points. The International Actuarial Association provides some general references.^{2,3,4} Your own actuarial association should also provide more specific references and have a code of conduct and disciplinary procedures.

FOCUS OF PROFESSIONALISM

At its core, professionalism focuses on the "how" of the conduct of actuarial activities, not the technical "what" of the outcomes. It is entrenched in the values that the profession and its members hold in common. This separation of the "how" and "what" is a key characteristic of a profession. A way to characterize this is to suggest that what distinguishes professions from each other and from other occupations is their values, as represented through their professionalism.

This is typically encapsulated in a professional code of conduct which all members of a profession are expected to abide by and there is a discipline process in place to deal with breaches. This differs from professional technical standards which provide guidance on requirements and processes needed to apply technical skills and to generate outcomes.

The key characteristics of a profession include:

- Licensing or accreditation of both a professional body and individual members, having the key characteristics of
 - Developing and maintaining a recognised body of specialised knowledge. This is almost always formalised through specific qualifications.
 - Public interest—this is a difficult term to define clearly even if we may have an intuitive feel for it. It focuses on protecting the interests of groups as opposed to individuals and carries an element of responsibility of those who have expert knowledge to apply their knowledge and influence in ways that do not disadvantage those



who do not share that expertise. It applies to both the profession and its member individually. It is intimately tied to the issues of ethics and personal integrity.

- Providing unbiased advice to the users of services provided by a member of the profession.
- Independence—in particular this implies the need to recognise and manage real and perceived possible conflicts of interest in a transparent and forward thinking way.
- Members have individual ethics and personal integrity.
- A defined code of conduct which all members are expected to abide by.
- Clear disciplinary procedures which address possible breaches of the code of conduct.

There can be a balance of competing forces for both the professional body and its members in satisfying these requirements. These tensions need to be acknowledged and managed. While there may be some loss of individual member autonomy, this is more than compensated for by the benefits of membership to the member, both directly and more broadly through being a member of a publically respected profession. This highlights the importance of perceptions and reputation, both for and by individual members and the professional body as part of maintaining public respect and trust.

CASE STUDY: ANOTHER COMPUTER GLITCH!

Following is a hypothetical case study. We encourage you to read and consider it and its implications. There are multiple threads running through it, ranging from the obvious and immediate to some more subtle and implicit ones. We also urge you, when considering your reactions, not to "sit in judgement" but to assume you are Mike and then proceed. Identifying and then addressing professionalism issues can be difficult, both personally and professionally, and may have a long lasting impact. If they arise, appropriate actions may not be clear, choices may need to be made and competing issues balanced.

Another computer glitch

Mike is the chief financial officer and actuary of Financial Life Insurance Co Asia (FLI), a high profile specialist life insurer which has grown quickly, and the recently established Asian subsidiary of the U.S. based Financial Group. He transferred from the company's Australian operation, where he had worked for 18 years, and has been in this job for 15 months.

For the third time in six months there has been a foul-up in the computer system which determines the unit pricing for their unit-linked product. He is concerned that negative public reaction will cause a "run" on the product, especially as there was quite a bit of financial press coverage on the previous occasions, including of his assurances that it was fixed.

The managing director (MD) has made it abundantly clear he wants the matter dealt with as quickly and as quietly as possible. Mike's relationship with the MD is rather strained as a result, and he is concerned he may lose his job, and his retirement benefits, if there is any significant public comment.

Yesterday a disaffected former employee of FLI spoke to a financial reporter at the main daily newspaper, apparently hinting that there were further problems with the software. The reporter had phoned, leaving Mike with a message to call, and a resulting unpleasant moral dilemma. If he admits to the problem, bad publicity and public over-reaction may force FLI to close the fund to exits, because a significant proportion of the assets are illiquid. This would be very damaging to FLI's reputation as well as, he suspects, his employment prospects (and his superannuation benefit—which vests after 20 years of service—which is still six months away!).

On the other hand he would be lying if he denied the problem. Distasteful though it may be, to silence the reporter and the disaffected former employee, he would have to pay bribes from his "discretionary funds" (which is consistent with local business "ethics"). He might have to pay off one or two staff (someone must have talked to their former workmate!). On reflection, he thinks it can be kept quiet while the problem is sorted out.

Mike is torn between his sense of personal integrity, his career, and his loyalty to the organisation he has worked with for nearly 20 years.

What should Mike do? Can be reasonably argue that local business ethics mean that "hushing it up" is okay? Or must he come clean? What other options are available to Mike?

Some points to consider:

How can Mike seek to mend his relationship with the MD and regain his confidence and support?

- What steps should be taken so the problem does not continue and get worse (this may be necessary for FLI to continue accepting new contributions)?
- Can Mike quantify the impact and assess the materiality of the problem and the number of policyholders affected?
- What support can Mike expect from within FLI?
- What support can Mike obtain from his actuarial associations?
- What obligations are there to inform or involve the supervisory authorities?
- How can Mike avoid or minimize the risk of FLI being "tried in the court of public opinion" and to minimize to impact of any possible "run" on the product?

We look forward to reader feedback and comments. Please reach out to us at the email addresses given below.

Disclaimer

All views, opinions and conclusions expressed in this document are those of the authors and not those of their employers. Material presented in this document should not be taken or implied to provide advice, either to entities of any from or to individuals for any personal or professional purpose. No consideration of specific or personal circumstances has been made or implied.



Jules Gribble, FSA, FCIA, FIAA, is a senior policy advisor at the IAIS and represents Australia on several IAA Committees. He is based in Basel and can be reached julesgribble@gmail.com.



Milanthi Sarukkali, FSA, Ph.D., is the founder and principal consultant at SPARK Actuarial & Risk Consultants. She is based in Colombo, Sri Lanka and can be reached at milanthi@sparkactuarial.

ENDNOTES

- 1 "Profession," Wikipedia, accessed Nov. 10, 2017. See https://en.wikipedia.org/wiki/ Profession.
- 2 "Criteria for a Code of Professional Conduct," International Actuarial Association, 2007,
- 3 "The Principles of Professionalism," International Actuarial Association, 2012, www.
- 4 "Chapter 3 Professional Standards," IAA Risk Book, International Actuarial Association, 2015, see http://www.actuaries.org/index.cfm?lang=EN&DSP=PUBLICATIONS&ACT=RISKBOOK



Professionalize Your Analysts with the Certified Actuarial Analyst (CAA)



Benefit from:

- Enhanced technical and analytical abilities
- High business focus and academic rigor
- Addition of actuarial dimension to employees' skillset
- Augmented ability to analyze data sets and communicate financial concepts

Learn more at CAA-Global.org and continue building to the future.



The CIMA Market: Insurance in French-Speaking Sub-Saharan Africa: Market Overview

By Renata De Leers

GOVERNANCE

The treaty for CIMA, Inter-African Conference on Insurance Markets—Conférence Interafricaine des Marchés d'Assurances was signed by 14 Sub-Saharan countries on July 10, 1992 in Yaoundé (Cameroon) and came into force on Jan.1, 1995. Of the 14 signing countries, 12 are French speaking,1 one (Guinea Bissau) is Portuguese speaking and one (Guinea Equatorial) is Spanish speaking. Since creation, two countries have joined with an observer status—Democratic Republic of Congo (DRC) and Guinea.



CIMA Treaty Countries

Table 1

CIMA		GDP per capita (2016 / World Bank) in US Dollars	SMIG or minimum monthly salary (in CFA)	SMIG in euro	Change GDP	Life Premiums (in millions of F CFA)
CEMAC (Central African	Cameroon	1,033	36,270 XAF	55€	5.80%	51,552
Countries)	Central African Republic	382	26,735 XAF	41€	0.80%	0
	Congo	1,528	85,000 XAF	130€	2.32%	5,564
	Gabon	7,179	90,000 XAF	137€	4.10%	17,563
	Guinée Equat.	8,333	150,000 XAF	229€	0.80%	
	Chad	664	59,900 XAF	91€	1.77%	1,194
UMEOA (West African Countries)	Benin	789	40,000 XOF	61 €	4.96%	14,095
	Burkina Faso	650	33,139 XOF	51€	4.03%	19,289
	Ivory Coast	1,526	60,000 XOF	91€	8.54%	119,876
	Guinée Bissau	620	Not available			
	Mali	781	28,460 XOF	43 €	5.96%	6,866
	Niger	363	30,047 XOF	46 €	3.55%	5,298
	Sénégal	958	47,975 XOF	73 €	6.50%	34,278
	Togo	578	35,000 XOF	53 €	5.40%	19,917
CIMA	Mean	1,813				295,492
	Median	785				

In the CIMA Treaty, member states committed to:

- strengthening co-operation between member states by setting up an extended and integrated insurance market;
- creating financially sound companies to enable them to underwrite large risks nationally or regionally;
- boosting national and regional economic growth through investments in assets covering insurance liabilities;
- providing training for management and technicians working in the insurance industry;
- creating common structures in charge of the study and the implementation of guidelines and decisions;
- creating a common regional supervisor for harmonized supervision (both off-site monitoring and on-site inspection).

The CIMA treaty also created a regional reinsurer, CICA-Re, based in Lomé, Togo, and the regional International Institute of Insurance (IIA), based in Yaoundé, Cameroon. These two organizations responded with the willingness to regionally reinsure large risks and to provide a common regional professional insurance training.

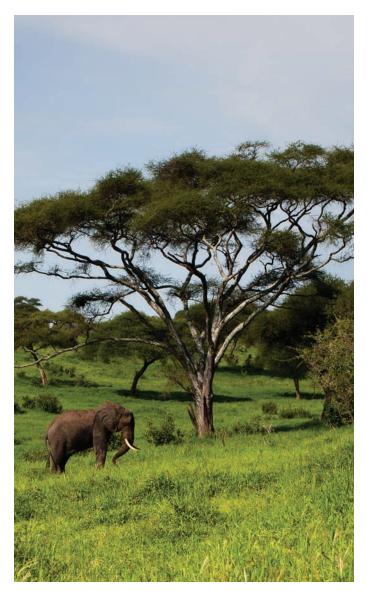
The two organizations however, are not competing on an entirely level field basis:

- CICA-Re, on one hand, benefits from compulsory cession, cession légale, amounting to 10 percent of total amount of ceded premiums; more importantly, it is a member of the Committee of Experts and of the Regional Commission of Insurance Supervision, Commission Regionale du Contrôle des Assurances (RCIS - CRCA); further to this, six other members of CRCA are also (by rotation) CICA-Re Board Members:
- IIA is fully funded by compulsory fees paid by insurers. Some note that such compulsory funding is not available for other forms of training that could perhaps be more efficient.

The overall institutional organisation is as follows:

- the Council of Ministers i.e., the highest decision making body of the Conference;
- the Committee of Experts appointed by the Council of Ministers;
- the Regional Commission of Insurance Supervisors (RCIS - CRCA); 11 members, with six being the chief managers of the national insurance department, the managing

Market Indicators for 2015										
Avg P/C	Change premium income	Non Life Premiums (in millions of F CFA)	Avg P/C	Change premium income	Life insurance penetration	Non life insurance penetration	Insurance penetration			
6,444	16.2%	130,528	8,158	11.6%	0.30%	0.74%	1.04%			
	-97.20%	3,157	1,579	35.00%	0.00%	0.33%	0.33%			
2,782	11.30%	70,189	14,038	30.10%	0.11%	1.66%	1.77%			
5,854	-3.10%	101,283	16,881	-2.00%	0.20%	1.18%	1.38%			
		1,557	779							
1,194	41.20%	13,254	6,627	4.10%	0.02%	0.21%	0.23%			
2,014	14.70%	32,608	4,658	11.40%	0.27%	0.63%	0.90%			
2,756	9.00%	38,624	4,828	17.00%	0.29%	0.58%	0.87%			
11,988	7.70%	162,609	9,565	15.80%	0.65%	0.87%	1.52%			
2,289	-12.20%	28,301	3,538	12.50%	0.09%	0.36%	0.45%			
2,649	1.70%	24,105	4,018	12.90%	0.12%	0.57%	0.69%			
4,285	28.60%	85,906	5,053	15.90%	0.42%	1.06%	1.48%			
3,983	0.30%	29,493	4,213	9.40%	0.80%	1.13%	1.93%			
5,277		721,614	7,006		0.27%	0.78%	1.05%			
					0.24%	0.69%	0.97%			



director of CICA Re, a representative of the Central Bank of West Africa (BCEAO) & Central Bank of Central Africa (BEAC), an expert in insurance supervision and international cooperation (in practice, a staff from the French supervisor), a legal advisor, another expert advisor nominated by the Council of Ministers; ex-officio members are the president of the FANAF (the Federation of Insurers of National Law), the managing director of the International Institute of Insurance (IIA) and the Secretary General of the Secretariat;

- the Secretariat of the Conference i.e., the permanent section of the regional supervisor;
- the Secretary General i.e., the "chief" of the Secretariat of the Conference, appointed for five years by Council of Ministers

the national insurance departments, Directions Nationales des Assurances (DNA), being the liaison between country and RCIS - CRCA

DYNAMICS

In the 14 member states having ratified the CIMA treaty, 159 insurers are operating² as per following break-down:

Non-life insurers: 104 Life insurers: 55

The insurance penetration is 1.1 percent and insurance density 10.10 USD. However this latter figure should be combined with the low GDP per capita in these countries which varies between 382 USD and 8,333 USD (see Table 1).

Most of the distribution channels in the CIMA region are identical to those in developed countries: brokers for industrial and corporate risks, tied agents for ordinary risks, bancassurance for credit life risks and modest-but increasing-sales of savings products for the emerging middle class.

MICROINSURANCE

Despite a regulatory framework for microinsurance existing since 2012, microinsurance has not taken off, in contrast to the interest seen in English-speaking countries in the region.

There are many plausible explanations:

- New regulation considers microinsurance as a new line of business however most conventional insurers may already be providing microinsurance products. As per regulations, existing insurers are invited to submit to the regional supervisor an application file for extension of licence. Some conventional insurers may have failed to do so, so far, and all microinsurance thus may not have been fully identified yet.
- The existing conventional insurers do not have the free surplus or their existing premium income is not yet generating sufficient return on investment to convince its shareholders to invest into new emerging markets.
- The uncertainty and volatility of premium income during the start-up years won't set off the expenses that insurers are used to in conventional business.
- The return on investment may be lower and the pay-back period may be long given the investments in technology and human resources.
- Insurers do not see the importance of investing today in low-income earners who might become clients of their conventional insurance business tomorrow.

ACTUARIAL PROFESSION

The actuarial profession has had little development as it is relatively unknown and due to a dominating position of the external auditor, called the "commissaire aux comptes."

The title of actuary is also used without being a member of full member association of the International Actuarial Association —an undergraduate (or graduate) degree in actuarial sciences is considered being an "actuary."

As of today the existing insurance regulatory framework, Code des Assurances, does not require insurers to have qualified actuaries sign off on actuarial memorandums for new or modified products, to provide a yearly financial condition report or an actuarial report to the regulator and/or board. Also, the Code des Assurances, besides other gaps, is neither compliant to this respect with the International Association of Insurance Supervisors (IAIS) issued Insurance Core Principles (ICP) 7 and 8 which require insurers to provide four internal control functions—ERM, actuarial, compliance, and internal audit.

Despite this missing support and encouragement from regulators, there is one full member association, the Institute of Actuaries in Ivory Coast, and there are associate member associations in Benin, Senegal and Togo, of the International

Actuarial Association. In fact this region has more fully qualified actuaries (members of full member associations such as SOA, IFoA, IA | BE, IA) abroad rather than in the region itself. We can only hope that soon the regulatory framework will move to adapt IAIS ICPs, risk-based capital and risk-based supervision which will create more opportunities for the actuarial profession. Or should we repeat what the new Secretary General of the IAIS recently told during the yearly assembly of the African Insurance Organisation: risk based supervision is only possible if actuarial skills are available.



Renata De Leers is consulting actuary & founder of ACB Consulting and executive director of Actuaries Without Borders. She is based in Africa (multiple locations) and can be reached at rdeleers@acbfora.

ENDNOTES

- 1 Cameroon is also English speaking; most of civil service however is French speaking.
- 2 Annual report 2015 from CIMA

Save the Date







Actuaries Around the World: Sudan

Editors' Note: This interview originally appeared on the ACTEX Learning blog (https://blog.actexmadriver.com/2017/05/15/ actuaries-around-the-world-sudan/).

his month we have the pleasure of interviewing Mohamed Omer and Yassir Khalid, two actuaries from

Dr. Mohamed A. Omer, AFA, ACCA, is an associate actuary, Institute and Faculty of Actuaries (IFoA) and a professional accountant. He has more than 25 years of experience in the life and medical insurance industry and teaching actuarial science and accounting in Sudan and Dubai. Omer holds two master's degrees in Actuarial Science and Actuarial Management from Cass Business School (London, UK).

Yassir M. Khalid, ASA, is an associate of the Society of Actuaries (SOA). He spent several years working as an actuarial analyst at National Pensions Fund of Sudan before joining a leading university in Saudi Arabia as an actuarial lecturer. He is also the editor of the Sudan Actuarial Society's Facebook page. Khalid holds a master's degree in Actuarial Science from Heriot-Watt University (Edinburgh, UK).

ACTEX Learning (AL): How many practicing actuaries do vou have?

Mohamed A. Omer (MAO): To the best of my knowledge, there are only two qualified actuaries in Sudan, and one partially-qualified practicing actuary. There are also many students who are planning to sit for either the IFoA or SOA exams.

AL: What is the word for actuary in your local language?

Yassir Khalid (YK): "Actuary" pronounced (in Arabic) as "Icktwary."

AL: When was actuarial science first introduced?

MAO: About 12 years ago at Al-Neelain University (based in the capital city of Khartoum).

AL: What is your favorite part about being an actuary?

MAO: Before joining the actuarial profession, I was a professional accountant working with an insurance company in Khartoum. Part of my job was to work with our consulting actuary, who is based in the United Kingdom, for product development and to get the valuation report for our life (Takaful) portfolio. Our company (Islamic Insurance Company) has to comply with Islamic Sharia rules in setting actuarial specifications for life (Takaful) products. This has presented a great challenge as Sudan was the first country to develop an insurance product that complied with Islamic Sharia. This challenge, coupled with the fact that we didn't have a single actuary has motivated me to join the profession.

YK: Dealing with uncertainty. Our modern life is full of risks. Being an actuary not only helps our clients to manage their risks, but also help us as actuaries to manage our life's personal risks appropriately.

AL: Can you share an interesting anecdote or two from your career?

MAO: Most of the trade unions in Sudan provide a lump sum retirement benefit plan to their members. These are unfunded Pay as You Go schemes and I worked a lot with them to convince them to convert to a funded plan or defined contribution plan and I had great success. The conversion resulted in a considerable cut in benefits. This has caused me great difficulty as many legal actions were filed against the trustees and I spend a lot of time defending their actions.

AL: Do you have any advice for young people in your country interested in pursuing this career?

MAO: Actuarial science requires hard work, but it is worth it. I am very confident that the actuarial profession will have a bright future in Sudan.

YK: Never give up. It is a very long journey to qualify as an actuary, but it is also an interesting one! Failing an exam does not mean that you cannot be an actuary, but rather foreshadows for you the high standards of the actuarial profession. There are, in fact, very few qualified actuaries who did not fail any exam at all.

AL: What are some of the highlights of the history of the actuarial profession in your country?

YK: In 2013, a group of actuarial analysts and MSc students established the Sudan Actuarial Society (SAS) and submitted membership application forms. The majority of members are students. SAS has a Facebook page, which aims to link, educate and update all SAS Facebook followers (currently around 7,000) about the actuarial practice. However, SAS is still not



officially registered in Sudan due to many challenges. Prior to the establishment of the actuarial profession, Sudan was instrumental in establishing Takaful insurance in the 1970s, a life insurance controlled by Islamic rules. Another interesting aspect of Sudan's history is that Sudan had the first Pension Scheme in the African and Arab world, founded in 1904 to cover British staff and expanding to Sudanese staff in 1919. This fund currently has a half-million beneficiaries.

AL: What are some of the main challenges and projects for your association over the next five to 10 years?

MAO: The main challenge is the ability to deal with international actuarial bodies under the American financial sanctions. The main project is to enhance the awareness and the importance of the profession among managers, politicians and business owners in general, and to make actuarial science one of the top choices for young talented students.

YK: Another important project is to create a website and to increase the number of students (currently around 60 members) to a total of 200. We plan also to fully support high-quality students to help them qualify as actuaries. We hope to have at least 10 associates by 2025.

AL: What developments on the horizon could affect future opportunities in your country?

MAO: The expected changes in the financial services regulations, which will impose many requirements for pension schemes and insurance companies to ensure soundness of their financial position.

AL: What have you seen from inside your company? Where do you think the changes to actuarial work in your country will happen in the next five years?

MAO: I expect many young people to try to pursue an actuarial career and gain more appreciation for the actuarial profession.

AL: Who are the main employers of actuaries?

YK: Insurance companies (general, health and life), pension funds, and recently, the ministry of finance.

AL: What qualifications do you find most important for upcoming actuaries?

YK: In my point of view, the CERA qualification is the most important one. However, the Certified Actuarial Analyst (CAA)

is also needed in the country, which will help in filling actuarial assistant (but not practicing) roles. It also has the advantage of being a shorter process, so it is cheaper and easier to obtain.

AL: Do the schools in your country have actuarial majors, minors, concentrations or do students study on their own or overseas?

MAO: Only one university offers BSc and MSc in actuarial science. We are working with others to develop this major.

YK: In 2005, Al-Neelain University started a BSc in actuarial science, followed by an MSc in 2009. Each year, there are around 20 graduating students with a Bachelor's, but the MSc is offered every two to three years and has a lower number of students. The MSc quality is higher and covers six to eight of the IFoA CT1--CT8 subjects.

AL: What is the credentialing procedure like for an actuary in your country?

MAO: The actuary has to get a practicing certificate from the Insurance Supervision Authority. The person should hold a membership status from a recognized international actuarial body.

AL: Do employers support the cost and time of exam preparation?

MAO: Yes, partially.

YK: Very few employers do support their employees. The majority of those that do realize the importance of investing in an actuarial team internally.

AL: What is your favorite Excel function?

YK: All Excel functions are amazing, but my favorite ones are the VLOOKUP and HLOOKUP functions.

AL: Do you have any non-actuarial hobbies?

YK: I enjoy watching wild TV programs, as well as space discoveries.

AL: What could people from outside of Sudan do to help the profession grow?

MAO: Technical help to the society (setting regulations and by-laws, offering of books and periodicals) and visiting lecturers to the university.

YK: We trust in extensive support from all actuaries and actuarial professions around the globe. As an initial step to growth, we aim to open examination centers and, for this, we seek support from those professions who are willing to do so. Actuaries, on the other hand, can benefit from existing volunteer opportunities including presentations at conferences that aim to educate local employers about the actuarial field and its importance. Lastly, we seek support from actuarial learning companies to offer our students generous discounts and, perhaps, assist us with establishing a library rich with material.

Is there anything else you would like to add?

MAO & YK: We would like to thanks ACTEX for this valuable opportunity. For further details and volunteer opportunities, we at SAS can be contacted at the email below:

actuaries.sd@gmail.com.

Actuary = Risk-Averse?

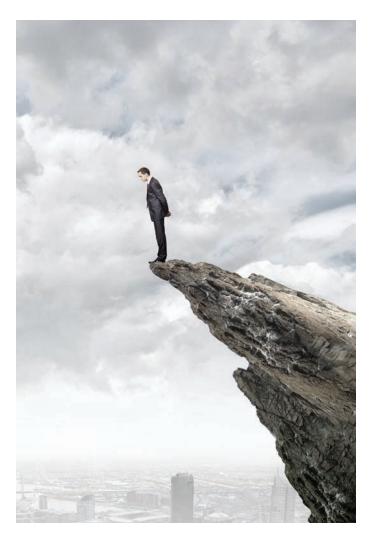
Bv Oueenie Chow

he stereotype of an actuary is often associated with adjectives like "conservative," "risk-averse" and "meticulous." Indeed, most actuaries like to get things right and that means exactly right—quotation of numbers should be right down to the decimal point. Yet, this is certainly not all the talent that an actuary has to offer.

Recently, a colleague complained saying: "actuaries should never be in the room when we discuss new innovative products, they just scare all our partners away with their risk analysis!" As an actuary working in micro-insurance innovations and product development in Kenya, my colleague still has a long way to go in learning about the actuarial profession.

Indeed, innovation often goes hand-in-hand with risk-taking. Whilst actuaries are the experts of risk management, this does not translate to a zero-risk tolerance. Allow me to use pricing in micro-insurance products as a case in point. One of the greatest challenges facing micro-insurance product development is the constraint of data availability on similar products. The lack of past experience can lead to high risk loading in pricing as a result of the great level of uncertainty. If the premium rates are set higher than actual experience due to conservative assumption setting, low take-up will likely result. Not only will the product be perceived as unaffordable, it will provide poor value for low-income households with limited financial means. The risk of anti-selection also emerges as over-priced products will likely attract individuals with higher risk profile. So, how can actuaries over-come this mismatch between premium affordability and data restrictions on micro-insurance products?

All actuaries are trained on the well-known actuarial control cycle—specify, develop and monitor—which emphasizes on the importance of repeated feedback loop in product management. The use of pilot testing (i.e., a small, simple controlled experiment of the product) is fundamental to product development whilst limiting risk exposure level. Moreover, this is precisely an application of the actuarial control cycle in solving real world business problems. Not only does a pilot put your product to test in its operations and market demand, it will also provide valuable insight and collection of data which can then be used in pricing going forward. It is only through continuous



monitoring and revision that accurate pricing assumptions can be validated for scaled-up products. Whilst actuaries have much to offer in accurate calculations, the even greater value of an actuary lies in his/her judgment and decision of materiality during this iterative control cycle.

"The biggest risk is not taking any risk...in a world that is changing really quickly, the only strategy that is guaranteed to fail is not taking risks." -Mark Zuckerburg

As actuaries—the natural leaders in risk—we are not opposed to taking risks, rather we strive to better manage risks in order for our stakeholders to succeed in an uncertain environment.



Queenie Chow, AIAA, works in microinsurance innovations with the Impact Insurance Facility (ILO) and MicroEnsure. She is based in Nairobi, Kenya and can be reached at queeniechow0320@hotmail.

SAVETHE DATE Association Marocaine Actuaires

5th African Actuarial Congress Casablanca, Morocco

aac2018.ama.ma.

March 15-16, 2018

The Moroccan Association of Actuaries (Association Marocaine des Actuaires) and the Africa Subcommittee of the Advice and Assistance Committee are pleased to announce that registration to participate in the 5th African Actuarial Congress (AAC) is now open at: **www.**

The congress, under the theme "Financial Development in Africa: Expertise and Public Interest," will be held March 15–16, 2018 at the Sofitel Tour Blanche Casablanca and will provide the African actuarial community with a great opportunity to promote the emerging profession in Africa. The congress expects the participation of 300 delegates including African professionals and actuaries from around the word, and will welcome Mr. Masaaki Yoshimura, president of the International Actuarial Association and Mr. Karel Van Hulle, former director general of the European Commission and considered the founder of Solvency II.

For more information visit www.aac2018.ama.ma and register now!

Feel free to share this information with your colleagues.



UPCOMING SOA EVENTS

ERM Symposium

April 19-20, 2018 • Miami, FL

Life and Annuity Symposium

May 7-8, 2018 • Baltimore, MD

Asia-Pacific Annual Symposium

May 24–25, 2018 • Seoul, South Korea

China Annual Symposium

May 28-29, 2018 • Beijing, China

Health Meeting

June 25–27, 2018 • Austin, TX

Underwriting Issues & Innovation Seminar

July 29-31, 2018 • Chicago, IL

Valuation Actuary Symposium

Aug. 27-28, 2018 • Washington, DC

Annual Meeting & Exhibit

Oct. 14-17, 2018 • Nashville, TN



Actuarial Development in Bulgaria

By Carlos Arocha

"Не оставяй днешната работа за утре."—Bulgarian proverb

... which is identical to Franklin's aphorism: "Don't put off until tomorrow what you can do today."

Acknowledgement: the author wishes to expressly thank Rossen Grachunov, president of the Bulgarian Actuarial Society, and Tatiana Bitunska, past president and organizer of the BAS/AWB Seminar on Enterprise Risk Management, for their contribution to this article.

he eastern portion of the Balkan Peninsula is occupied by Bulgaria, a member of the European Union that borders with Romania, Macedonia, Turkey, Greece, and Serbia. From an economy that was primarily agricultural a mere 60 years ago, the country has developed into a sophisticated provider of scientific and technological research, automotive components, chemicals, and other industrial activities. I was recently honored to conduct a three-day seminar on Enterprise Risk Management jointly sponsored by the Bulgarian Actuarial Society (BAS), and Actuaries Without Borders (AWB), a section of the International Actuarial Association (IAA). Taking that opportunity, I witnessed a vibrant urban life in the country's capital Sofia and learned about the history and latest development of BAS.

In 2017, there are more than 90 actuaries in Bulgaria, 50 of whom are fully-qualified. A majority have graduated from the Sofia University "St. Kliment Ohridski."

The BAS is a full member of the IAA. It was founded in 1924, but ceased to exist in 1944 during World War II, and was reestablished in 1993 by 19 founding members. Its current charter was set very much in the spirit of the Chart of the first Society of Bulgarian Actuaries of 1924. Actuaries from the very

early period of the profession in Bulgaria were graduates of the colleges of trade and finance in Russe and Svishtov, two towns in the bank of the Danube. A few actuaries earned university degrees from the Mathematics Department of the Sofia University. Some other actuaries were trained in European universities, for example, Prague, Paris, Vienna, and Berlin.

In 1995-1996 a post graduate diploma course in Actuarial Sciences was organized jointly by the BAS, the Institute of Actuaries, and the Faculty of Actuaries (The Institute and Faculty of Actuaries (IFoA) was established in August 2010). The syllabus of the course included eight modules of 25 hours of lectures each, covering actuarial mathematics, statistics and probability, economics and investment, social security and occupational pensions, as well as principles and practice of life and non-life insurance. The modules ended with written tests provided by the U.K. lecturers. Diplomas were issued jointly by the BAS and IoFA to 20 students. The course provided the subsidy set to develop further actuarial qualification courses and examinations at the BAS. The course was also supported by the Know How Fund of the British Government and the lectures were delivered by members of the IFoA.

In 2017, there are more than 90 actuaries in Bulgaria, 50 of whom are fully-qualified. A majority have graduated from the Sofia University "St. Kliment Ohridski."

The BAS is taking up the education of future actuaries in accordance with the new syllabus of the IAA, and where local resources are not available, international participation is sought. As is the case in many countries in the world, one of the fastest ways to start building actuarial capacity is to invite lecturers from other actuarial associations. Earlier this year, a two-day seminar on P&C Claim Reserving Methods was held by two university professors from Malaga University, who are members of the Spanish Institute of Actuaries. Other programs include economic capital models, risk theory and derivatives pricing, professionalism and professional standards, business economics, etc. Further programs on big data, investment portfolio management, and ruin theory are in the planning. The aim being both to educate new actuaries and to let credentialed actuaries to obtain continuing professional education credits.

The 2017 Enterprise Risk Management seminar in Sofia was a remarkable experience. The audience of 51 was quite familiar with the topics included in the seminar content, so the emphasis was geared to the most practical aspects of regulatory and advisory ERM paradigms, including Solvency II. A few R scripts were also presented to pique the attendees' interest on actuarial applications and insights. Extreme Value Theory and the modeling of dependencies motivated lengthy but



intellectually rewarding reviews. All in all, the highly interactive seminar was also an opportunity for actuaries to network.

The current insurance industry in Bulgaria is not as developed as other European Union countries, but it has great potential. The country's gross written premium in 2016 is about USD 1.1 billion, a 7 percent increase from previous year and the growth rate is above the European average. There is much need to keep developing actuaries and other risk professionals to contribute to the growth of the industry. If the efforts taken

by the BAS to educate actuaries stay on the right course, a bright future for the insurance sector will be guaranteed. BAS is serious about its commitment, and they are not putting off until tomorrow what can be done today.



Carlos Arocha, FSA, is managing director of Arocha & Associates, an actuarial consulting firm. He is based in Zurich, Switzerland and can be reached at ca@ArochaAndAssociates.ch.

Call for Nominations for IACA Lifetime and Young Actuary High Achievement Awards



oes an actuary in your practice deserve to be recognized? Or do you wish to nominate one of your peers for an award?

The International Actuarial Association (IAA) Consulting Actuaries Section is seeking nominations for the Max Lander Award and the Geoffrey Heywood Award. The intent of these awards is to help bring the consulting actuarial profession into the public domain and encourage the successful development of consulting actuarial practices and actuarial literature.

The recipients will receive a plaque and a monetary award that will be donated in their honour to an actuarial-related organization of their choosing that is involved in or promotes the development of the profession. The recipients will be notified

and presented with the awards at the IACA Biennial General Meeting at the ICA 2018.

ABOUT THE MAX LANDER AWARD

This award is a lifetime achievement award for a (current or past) consulting actuary. It is named in honour of the late Max Lander, a founding member of IACA and its initial secretary/ treasurer. It is given to a member of the actuarial profession who has contributed to the public awareness of the work of the profession and the promotion of the business of consulting actuaries. The 2018 award will be the eighth presented. Past recipients include the following luminaries of our profession: Jim McGinnitie, Paul Thornton, Klaus Heubeck, Fred Kilbourne, Chris Daykin and John Martin. Who will receive this lifetime achievement award at the International Congress of Actuaries (ICA) 2018? Now is your chance to nominate that someone special whom who you believe deserves this recognition.

ABOUT THE GEOFFREY HEYWOOD AWARD

The Young Consulting Actuary High Achievement Award is named in honour of the late Geoffrey Heywood, MBE, IACA's founding chairman. It will be will be given to a young (under the age of 40) consulting actuary who has provided significant services to the public and the actuarial profession. The next award will be the third presented. It was previously awarded to Marian Elliot and Chintan Gandhi. The world is full of talented, bright young actuaries like Marian and Chintan who are bringing great credit to our profession. Someone you know is a potential winner of this award at the Berlin Congress, so step up and nominate him or her.

Please email your nomination with brief reasons to Brent Walker, chairman of the International Association of Consulting Actuaries (IACA) Awards Sub-Committee (brent@bwas.com. au) with a copy to the Cathy Lyn, IACA chairperson (lcathy88@ yahoo.co.uk) before March 30, 2018. ■

Actuarial Professionalism Course in Bogota, Colombia

By Edward L. Robbins

he Colombian Actuarial Association (CAA), a full member of the International Actuarial Association (IAA), requires all of its members to complete a 3-hour course on actuarial professionalism. The course is given biennially in Bogota.

On Oct. 25, 2017, Edward Robbins, FSA, and Christian Mora (CAA member) jointly gave a professionalism course to CAA members. To a large extent, the course covered topics currently contained in the Fellowship Admissions Course administered by the Society of Actuaries.

The session began with an emphasis that actuaries owe much to the reputation of expertise, competency, honesty, and impartiality that past actuaries have given our profession, and how easy it is for one person to do serious damage to that reputation by not following professionalism requirements.

Presenters discussed some principal characteristics of a profession, and all members agreed that the actuarial profession clearly fits that set of characteristics:

- Unique expertise that is necessary for the public to function in today's environment
- A long period of education and responsible experience
- Provision of an essential benefit to society at large

Presenters further described some elements of the actuarial profession that makes it more difficult for the public to recognize us as a profession compared to other professions such as accounting and law:

- We are small in number compared to other professions.
- We rarely come in contact with the public in our work.
- Impact of our decisions is typically very long delayed and thus cannot be immediately manifested.

These challenges indicate the importance for actuaries to communicate to the public the work that we do, and to have zero tolerance of bad work, in order to maintain our reputation as



valued professionals. It is critical that we do good work, but it is also important that our clients have a sense of what we do and perceive that we do good work.

Presenters then described the multiple facets of a strong professionalism structure, namely a code of professional conduct, a set of technical standards of practice, detailed qualification standards for an actuary to practice in a particular area, and a well-functioning discipline system. Mr. Robbins discussed the U.S. professionalism structure while Mr. Mora discussed the Colombian equivalent structure.

The last segment of the course was a discussion of two fictional case studies that highlighted the potential complexity of ethical issues. Both cases, rather than being presentations, constituted statements of the facts of the cases and subsequent interactive discussions with the attendees, as to which precepts of the Code of Professional Conduct in the United States were possibly being violated and alternative courses of action to take.

We would like to take this opportunity to thank Luis Gabriel Caro, ASA, and Armando Zarruk Rivera, ASA, for their valuable assistance in coordinating the course in Bogota. We owe additional thanks to Linda Priebe, FSA, for her valuable assistance in the preparation of the case studies.



Edward L. Robbins, FSA, MAAA, is a retired partner from the accounting firm of KPMG, LLP, where he led the life actuarial practice. He is based in Bloomington, Indiana and can be reached at elrobbins32@gmail.com.

Celebrating a Prominent Actuary: The Hon Daisy McFarlane Coke

By Cathy Lyn

t was a glorious and scintillating Saturday evening, Oct. 21, 2017 in Kingston Jamaica, celebrating Daisy McFarlane Coke's 80th birthday and her awesome contribution to the actuarial profession as a pioneer in the Caribbean. The local actuarial community, close friends and family organized this memorable occasion to show how much they appreciated Daisy's professional and social contribution as an actuary to all the various communities she served. Daisy has been long-time mentor for many local actuaries and she founded the Caribbean Actuarial Association in 1991, which became a full member association of the International Actuarial Association (IAA) in 2008. She has been honoured with the Order of Jamaica in recognition of her extensive public service. Daisy has been a member of International Association of Consulting Actuaries (IACA) for over two decades and is a regular attendee at Colloquia and Congress.

A young girl from rural Jamaica, Daisy won an open scholarship to university in 1953 followed by a Jamaican government scholarship to England to become an actuary. There she got practical experience at the U.K. Government Actuary's Department and earned her FIA in May 1970 becoming the 13th living female FIA. Daisy received her ASA designation from the Society of Actuaries around 1974. She found SOA events very useful and convenient to attend due to their proximity to Jamaica when we had severe foreign exchange restrictions and



Cathy Lyn, Daisy Coke and Mike Smith

in the days when only journals and meetings were available for career development

The Hon Portia Simpson, a former Prime Minister, Dr Peter Phillips, leader of a prominent political party, former Minister of Finance, and former Governor General Sir Kenneth Hall were among the many dignitaries who joined the actuaries to honor her. Nikhil Asnani, a talented musician, who just earned his fellowship at age 23, played a couple Bob Marley pieces with the band. Astor Duggan and St Elmo Whyte, two senior actuaries, led the happy birthday song.



Cathy Lyn, FSA, FIA, Chair IACA, is a consulting actuary with Duggan Consulting Limited. She is based in Kingston, Jamaica and can be reached at Icathy88@yahoo.co.uk.



475 N. Martingale Road, Suite 600 Schaumburg, Illinois 60173 p: 847.706.3500 f: 847.706.3599 w: www.soa.org NONPROFIT ORGANIZATION U.S. POSTAGE PAID SAINT JOSEPH, MI PERMIT NO. 263

