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Editor's Note

By Milanthi Sarukkali

Warm wishes for 2019! With the dawn of the new year, we have a few changes to announce within the International Section as well as on the International News editorial board. I am honored and excited to serve as the lead editor of this newsletter going forward. I am also excited to have Carlos Arocha join me as the deputy editor. We are hopeful that we can continue to bring you interesting articles with international relevance. We are deeply grateful to Arpita Das, our lead editor in 2018 who has contributed immensely toward the success of this publication.

We also extend our congratulations to Arpita as she steps down from her role on the editorial board to provide leadership to the International Section as chair. The International Section Council ushered in new council members at the 2018 SOA Annual Meeting & Exhibit in Nashville, while several of our former council members completed their three-year terms. A special thank-you goes out to Vincent Xuan and Wendy Kwan, former chairperson and vice chairperson of the International Section for their invaluable contributions throughout their term on the Council.

Our sincere wishes go to Kathryn Baker, SOA staff editor, whose support has been invaluable to make this publication a success, as she moves out of her 13-year tenure at the SOA, most of which was spent working on *International News*. We thank her for her contributions to this publication and welcome Sam Phillips, who will be supporting *International News* going forward.

I would also like to take this opportunity to congratulate our deputy editor, Carlos Arocha, for being nominated as an outstanding volunteer at the 2018 SOA Annual Meeting & Exhibit. Carlos is a former chairperson of the International Section and a long-time volunteer and friend, whose contributions to the profession are far-reaching and immensely impactful.

This issue of *International News* covers a wide array of topics and regions, including reflections on being an Actuaries Without Borders (AWB) volunteer, and a conversation with one of our



regular authors on her unique experience working in Kenya. We also explore the use of block chain in insurance. A discussion on actuarial paradigms in a changing world and an introduction to the International Actuarial Association (IAA) monograph on IFRS 17 Risk Adjustment are also included.

The International Section is calling for papers for the Country Feature Article competition that is conducted each year. Deadline for submission of entries has been extended to Feb. 15, 2019. This is a great opportunity for section members to share diverse insights and experiences and stand a chance to win cash prizes. The articles submitted for the competition will be published in future issues of this newsletter.

International News serves as a link between the section members, section council and the SOA. We strive to make this newsletter a platform that showcases engaging and timely topics to keep our readers informed of regulatory and technological developments as well as the evolution of the profession around the world. We would like to encourage our readers to continue to provide feedback and reach out to us with ideas for new topics to be covered in our newsletter. ■



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Chairperson's Corner

By Arpita Das

On behalf of the Section Council, I wish all our members a happy new year! Hope you had a wonderful holiday season and that 2019 is off to a great start.

I am especially pleased to be writing my first Chairperson's Corner, as this is the first issue where we welcome Milanthi Sarukkali as editor-in-chief and Carlos Arocha as deputy editor-in-chief. Both Milanthi and Carlos have been active members of the editorial team that I have enjoyed working with over the years. I cannot think of more qualified editorial team.

The new year has also brought with it a number of changes here on the International Section Council. First, I'd like to personally express my thanks to Vincent Xuan, our outgoing Chairperson whom I've had the pleasure of working with over the past few years as Editor and Chairperson. We will miss Vincent's leadership but look forward to his continued guidance as a friend. Second, I would like to thank Wendy Kwan, our outgoing vice chairperson. We would not be where we are today as a section without our past member's contributions. With this rotation we also welcome new council members Manyu Wong, Esteban Paez and Steven Chen. We continue to have on board with us Susan Mateja, Yanjie Feng, Heather Ingram, Ken Seng Tan and James Xu, as well as our staff partners Ben Marshall and Jane Lesch. Congratulations again to our new members and many thanks to our continuing members. With a strong and diverse team set in place, I am excited for the year ahead of us.

In 2019, the International Section will also continue to collaborate with the SOA International Committee.



This year at the International Section we will be focused on member value. At our first strategy call, council members had an enthusiastic discussion of what we can do as a section to foster connection, share content and encourage outreach initiatives. Some ideas have included having an e-bulletin for members, country-specific web pages, presence at international actuarial events and networking activities.

In 2019, the International Section will also continue to collaborate with the SOA International Committee as well as the Ambassador program to promote the SOA's international objectives and maximize potential areas of section member value.

Finally, we are always looking for volunteers and ideas for the section. If there is anything you are passionate about or would like to see—please do not hesitate to reach out to me or our council members. ■



Arpita Das, FSA, FSAI, is the life and disability senior actuary at Allianz Partners. She is based in Dublin, Ireland, and can be reached at arpita.das@allianz.com.

2018 SOA Annual Meeting & Exhibit

By Carlos Arocha

Nashville is a colorful city and the center for the music industry in the United States. On 14–17 October 2018, it was also the location of the SOA Annual Meeting & Exhibit. As has been the case in the past few years, this year’s meeting was attended by more than 2,200 people including many delegates from actuarial associations worldwide.

The Annual Meeting was special in many respects: it took place during the SOA and the Casualty Actuarial Society merging plans. The merger ultimately did not come to fruition, but at the time of the meeting several CAS Board Members delivered enthusiastic messages to the audience. There was a special Q&A session, a sort of townhall gathering, where members of the two Boards shared their views and answered questions under the theme “stronger as one.”

The Annual Meeting was also special because the venue was ideal for networking, casual dining (including top quality spare ribs at Martin’s Bar-B-Que Joint), and the obligatory visit to Broadway, Nashville’s music scene.



At the General Session keynote speaker Tali Sharot, a neuroscientist and author, covered topics ranging from decision making to optimism and emotion. The second keynote speaker of the Annual Meeting, Jennifer Aaker, a psychologist and author, spoke at the Presidential Luncheon. Dr. Aaker discussed “the dragonfly effect,” a topic that she has written about, or quick, effective and powerful ways to use social media to drive impact.

INFLUENCE TRAINING FOR ACTUARIES SEMINAR

For the second year in a row, a seminar on influencing skills was organized prior to the Annual Meeting. Andrew Sykes, FFA, an actuary and coach, aimed to provide participants with the tools

needed to be highly influential in all settings. The message was to make actuaries’ important work not only understood but also acted upon.

OUTSTANDING SESSION AWARDS

The following sessions were awarded the “Outstanding Session” recognition:

- 1. The Shape of Water, Genetics, e-Cigarettes and Diabetes (SOA Longevity Advisory Group)**
Moderator: Al Klein, FSA, MAAA
Presenters: Ian Duncan, FSA, MAAA; Sam Gutterman, FSA, CERA, FCA, FCAS, HONFIA; Al Klein, FSA, MAAA
- 2. A Matter of Trust: Creating Valuable Relationships (Leadership and Development Section)**
Moderator: Kelly Hennigan, FSA, CFA
Presenters: Stephen J. Bochanski, FSA, CERA, MAAA; Kelly Hennigan, FSA, CFA; Gary Pines, FSA; Chad Record
- 3. 2017 CSO Friend or Foe (Product Development Section)**
Moderator: Curt Clingerman, FSA, MAAA
Presenters: Anthony V. Ferraro, FSA, MAAA; Stacy Koron, JD; Donna Megregian, FSA, MAAA
- 4. Ethics for the Retirement Actuary (Retirement Section)**
Moderator: Marcus Robertson, FSA, FCIA
Presenters: Ben Kirkland, FSA, EA; Eileen Luxton, FSA, FCIA; Marcus Robertson, FSA, FCIA
- 5. A Practical Guide to Machine Learning for Actuaries (Predictive Analytics & Futurism Section)**
Moderator/Presenter: David M. Liner, FSA, CERA, MAAA





Congrats to the SOA's Outstanding Volunteers. Thank you to all our volunteers.
<http://ow.ly/wbBC30mfhdw>

2018 RECIPIENTS OF THE OUTSTANDING VOLUNTEER AWARDS

Individuals who received this award for their outstanding service contribute to superior performance, have demonstrated team collaboration and effective communication, taken on leadership roles, and served as an inspiration to others. The following individuals were recognized at the Annual Meeting:

- Mark E. Alberts, FSA, MAAA
- Carlos Arocha, FSA
- Ashlee Mouton Borcan, FSA, MAAA
- Steven L. Craighead, ASA, CERA, MAAA
- Robert T. Eaton, FSA, MAAA
- Kelly L. Featherstone, FSA, ACIA
- Shu-Yen Liu, FSA, CERA, MAAA
- Brian E. Pauley, FSA, MAAA
- Kevin J. Pledge, FSA, FIA
- Anna M. Rappaport, FSA, MAAA
- Heather A. Waldron, FSA, MAAA

DISTINGUISHED SERVICE AWARD

The SOA Distinguished Service Award is given to volunteers who have long-term, multifaceted volunteer records with the SOA. Douglas A. French, FSA, FCA, FIAA, MAAA, was recognized at the Annual Meeting.

PRESIDENTIAL AWARDS

The following individuals were recognized at the Annual Meeting:

- Hélène Baril, FSA, FCIA
- Brian L. Louth, FSA, FCIA
- Catherine D. Lyn, FSA, FIA
- Timothy L. Rozar, FSA, CERA, MAAA
- Nazir Valani, FSA, FCIA, MAAA

INTERNATIONAL SECTION SPONSORED SESSIONS AND EVENTS

The International Section organized the following sections and events:

- International Section Hot Breakfast
- Closing the Nat CAT Protection Gap in Latin America
- Migrating Actuarial Skills to Banking Practice
- InsurTech Across the Pacific
- Adaptation of Solvency II to Emerging Markets
- Section Networking Event (cosponsored with the Joint Risk Management Section, the Investment Section, and the Product Development Section)

Nashville was a terrific experience. We hope to have for the 2019 Annual Meeting & Exhibit in Toronto a collection of exciting international topics and rewarding networking events. ■



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



REACH UP TO 30,000 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. The SOA four major meetings include:

- Life & Annuity Symposium
- Health Meeting
- Valuation Actuary Symposium
- Annual Meeting & Exhibit

Session Series Sponsorship

Opportunities at each of the SOA's four major 2019 meetings encourage the spread of ideas through effective and engaging presentations, by experts in the field. Interested companies may apply to sponsor a series of two (2) sessions at any of the four largest meetings.

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 and to discuss customized and comprehensive sponsorship package options, contact lscaramella@soa.org.



2018 SOA Activities Around the World

By Ann Henstrand

The SOA now has about 4,500 members across Asia, and more than 7,500 candidates in those same markets—so we must work hard to continue to tailor our programming and increase our activities to support the profession and our future and present members. Our activities make for a full calendar for staff, volunteers and Board representatives year-round, with a multi-faceted agenda including professional development events, member networking gatherings, locally relevant research projects, university visits, employer visits, participation and sponsorship in local association and industry conferences, an ambitious social media presence, and numerous regulatory and local association meetings and cooperative projects.

Under the SOA Board's International Committee, volunteer members in Asia serve on the China and Greater Asia Committees, from mainland China, Hong Kong, Taiwan, Singapore, South Korea, Malaysia, Thailand and Indonesia. Committee members take the lead to organize professional development events and customize and guide our other activities. Talented and dedicated staff at the SOA's Beijing and Hong Kong offices acted as our lead strategists and managers in a busy year packed with outreach and assistance.



Trends in the growth of university candidates outside of North America is also remarkable—the number of first time exam takers continues to increase year over year. All this growth, with similar increases in other markets, tells us that we must increase attention aimed at supporting students and professors.

Throughout 2018, SOA representatives including staff, Board members and senior local committee members made more than a dozen separate university visits in Asia. University visits give students a forum to learn about being an actuary and ask questions. For the SOA, meeting with students and their teachers gives us a way to closely understand experiences on the first rungs of the ladder toward becoming an associate or fellow of the society.

One university event in 2018 stood out—just before the Asia-Pacific Annual Symposium in Seoul, staff joined visiting SOA Board member and International Committee Chair Susan Blanck and SOA managing director of Research Dale Hall, along with SOA Greater Asia Committee members Joseph Kim, Milliman Seoul, and Douglas Kim, Korean Re, to meet with candidates in South Korea. Despite it being a public holiday, our friends at the Institute of Actuaries of Korea assisted and lent space for us to host a large group of candidates. After a general information session, Sue, Dale, Douglas and Joseph shared stories and personal perspectives from their actuarial careers. It was wonderful for the candidates to hear from such diverse actuarial paths—Sue spoke about her long tenure in Japan as the Chief Actuary for Aflac, Dale about his years as a chief actuary in the United States and his current role leading research activities at the SOA, and Joseph and Douglas spoke of their experiences as Korean actuaries at an international consultancy and a domestic company. Following the session, candidates crowded around the four with a myriad of requests for insight—we couldn't close the session on time!

Two new events this year also helped support actuarial education in the region—in July SOA staff and local professors organized the first SOA Actuarial Teaching Conferences outside of the United States and Canada that took place in Qingdao and Hong Kong. The day-long event in Qingdao brought together 35 university professors from 22 universities and included guest speakers Professor Wai Sum Chan, Professor of Finance from the Chinese University of Hong Kong; Jed Frees, Emeritus Professor from the University of Wisconsin-Madison; Wang Xiaojun, SOA China Education Subcommittee Chair and Renmin University Professor; Li Bingqing, SOA China Education Subcommittee Member and Nankai University Professor; and Steve Zhang, SOA China Education Subcommittee Member and the General Manager of GM MunichRe Greater China. Several days later in Hong Kong, a similar program, the Asia-Pacific Actuarial Teaching Conference, hosted by the University

of Hong Kong, brought together more than 40 actuarial academics from Australia, United States, mainland China, Hong Kong, Singapore, Thailand, Philippines, Taiwan, Malaysia, South Korea and Indonesia. At both events, formal presentations included techniques to promote active learning; soft skills like communications, ethics and professionalism; and incorporating predictive analytics in an actuarial curriculum. The professors also heard from SOA staff Ken Guthrie, Ann Henstrand and Tiffany Tatsumi on SOA educational and regional initiatives. From the warmth of the conversations at meals and receptions in both cities, perhaps the biggest participant takeaway was the chance to forge friendships and professional contacts with fellow actuarial educators.

With every year, the SOA grows its international activities ... and 2018 was a banner year ... for the number of undertakings.

Alongside these new events, in 2018 the SOA also continued to grow attendance and offerings at a number of regional professional development events. The two annual SOA signature events in Asia are the Asia-Pacific Annual Symposium, held this year in Seoul, Korea; and the China Annual Symposium, this year in Beijing. Both major meetings combine technical topics specifically crafted by regional committee volunteers, alongside keynote presentations from local associations and regulatory leaders. The China Symposium is in its third year and continues to sharply grow in attendance; it attracts well-known and topical speakers who present a program uniquely suited to local actuaries. The Asia-Pacific Symposium program is also tailored to local interests with all disciplines covered, and, in its eighth year in the region, as always depends on strong support from local industry, regulatory and actuarial association friends.

In 2018 in addition to the signature symposia, additional professional development events were held in Singapore, Taiwan, Hangzhou, Hong Kong, Malaysia and Indonesia throughout the year. Topics covered included big data, InsurTech, predictive analytics, professionalism and risk management. Alongside these educational events, we held more than 60 separate employer, local association and regulatory visits in the region with SOA

Executive Director Gregory Heidrich, US and Asian staff, and Board representatives such as past Presidents Jerry Brown and Mike Lombardi. Staff and local committees also organized member receptions where SOA members heard short talks and strengthened their professional contact networks at gatherings in Beijing, Shenzhen and Hong Kong.

Asia is the part of the world with the largest number of SOA members and candidates outside of North America, but the rest of the world also draws our attention. The Latin America Committee is the third regional committee reporting to the Board's International Committee and has been concentrating its attention over the past three years on four key markets there—Chile, Argentina, Colombia and Brazil. The cornerstones of work in Latin America rest on similar pillars to Asia, with key workstreams aimed at universities, local associations, employers and regulators. Similar to weeks the Committee spent in Argentina in 2016, and in Colombia in 2017, in September 2018 they organized a packed schedule of reach-outs in Rio de Janeiro, Brazil, coupling a face-to-face committee planning meeting with the local association's—the Institute of Brazilian Actuaries—own congress. Committee members met with two local regulatory agencies, nine local employers and two universities and provided sponsorship and speakers to the IBA Congress. Additionally, the SOA itself held its own first professional development event there on universal life and began strategic planning for its future in the region.

With every year, the SOA grows its international activities around the globe, and 2018 was a banner year both for the number of undertakings and the reach and depth of its programming. Aside from the already discussed achievements in Asia and Latin America, in 2018 the SOA also presented at an actuarial mathematics conference at King Saud University in Riyadh and made other visits there with interested parties and in neighboring UAE's Abu Dhabi and Dubai. Board representatives and staff also visited Vietnam and the Caribbean and participated in a full program of events and bilateral contacts at the International Association of Actuaries' meetings in Mexico City and at the International Actuarial Congress in Berlin, Germany. ■



Ann Henstrand is senior global strategy advisor for the SOA. She can be reached at ahenstrand@soa.org.

Reflections From Volunteering With the Actuaries Without Borders Global Mentorship Program

By Michael Mendel

Like many actuaries, I have always had a passion for travel. Early in my career, I always tried to take at least one international trip every year. These vacations produced cherished memories, but I never stayed long enough to really learn a lot about the places I was visiting.

While working for Deloitte Consulting, I had the opportunity to work with actuaries based in India. When an opportunity arose to travel to India for a month to work directly with our actuaries, I quickly raised my hand.

After completing my Fellowship in 2015, I took a short break from my career to embark on a journey around the world. Upon my return, I was interested in ways to get involved with the international actuarial community. This interest, and the International Actuarial Association (IAA) Council and committee meetings that took place in my home city of Chicago in 2017, led to my involvement with the Actuaries Without Borders (AWB) Global Mentorship Program (GMP).

For those not familiar with the IAA, it is a not-for-profit organization that serves as the global association of member actuarial organizations. As of November 2018, there are 74 full member (including the SOA) and 25 associate member organizations. The IAA is served by approximately 800 volunteers across the planet and an administrative secretariat based in Ottawa.

Actuaries Without Borders was founded in 2003 and is a section of the IAA. AWB's focus is supporting the IAA in the development, organization and promotion of the actuarial profession in countries where it is not present or fully developed. AWB provides support, advice and education but does not provide direct actuarial services on a consulting basis.

The Global Mentorship Program was started in 2015 to connect experienced actuaries in mature markets with aspiring actuarial

professionals in countries with fewer actuarial resources. Since its inception, we have paired nearly 100 mentees based in five continents.

As I already mentioned, I first became involved with AWB in 2017. I had been serving as a mentor for several months when I took over as Deputy Program Manager. I was tasked with pairing mentors and mentees. My job seemed deceptively simple at first: create a list of mentors and a list of mentees and make some pairs!

In one sense, this was correct. There were some commonsense criteria to consider. For example, we should pair mentors and mentees who speak the same language and practice the same actuarial discipline. We should try to pair mentees who are seeking assistance with passing exams with mentors who are comfortable tutoring.

However, it wasn't quite so simple. While I certainly don't have all the answers, I wanted to discuss the lessons I've learned in my time volunteering with this program both as deputy program manager and as a mentor.

LESSONS LEARNED AS DEPUTY PROGRAM MANAGER

Vet Mentees

We receive mentee applications from aspiring actuaries of all experience levels from all over the globe. Through this program, we aspire to help as many as we possibly can. However, it is important to also consider the experience of the mentors when pairing applicants. Developing a solid process to triage incoming applications has made a significant difference in building successful pairings.

It is critical to, as best we can, determine who is serious about participating in the program. Often, it is apparent from an application through an applicant's responses and/or through their career accomplishments. Other applications are missing critical information or don't show as much effort. We have brought on two assistants to help with this process and reach out to all of our applicants. While this has meant slowing down the process between application and pairing, we believe it has dramatically improved the mentor experience and led to more fruitful relationships.

Provide Clear Instructions

Early on, we had the odd experience of sending an email introducing mentors and mentees and then . . . nothing happened. No one would send the next email, and we had a failure to launch.

It turned out that the vast majority of these instances were due to one of two reasons. The first was the reason addressed above: insufficient vetting. This improved our response rate somewhat but did not explain all of the nonresponses.

After speaking with AWB leadership, we discovered the second reason—our instructions were not clear enough. In the United States (as in other countries from which we receive the bulk of mentor applications), it is generally understood that mentees are responsible for initiating contact with mentors. However, this is not necessarily customary to our mentees. In many countries, junior employees do not typically reach out to their seniors without being specifically prompted to do so. Once we made our instructions clearer, we greatly reduced the number of pairs who did not make initial contact.

Learn to Accept (Some) Failure

Despite our best efforts, it won't always work out between a mentor and mentee. I often took this failure personally, thinking, "if I had only made a more logical assignment, it would have worked out better." This way of thinking was paralyzing at times. Why bother doing this work if it will not go anywhere?

While I still struggle with this at times, I have come to accept that some level of failure is inevitable. Some people will apply to the program with the best of intentions only to have life get in the way. Some pairings will never establish the chemistry needed for success. It's important to learn from these failures, accept them, and move on.

LESSONS LEARNED AS A MENTOR

I've had the privilege to work with three incredible mentees throughout the past year and a half. In addition, I've spoken to others affiliated with the program, and I believe I've improved considerably as a mentor throughout this period. It sounds cliché, but I really feel that I have learned as much or more from mentees as they have from me. The following are some of the most interesting things I've learned.

Challenges Faced by International Actuaries

Most of us start our careers with little knowledge about how to perform actuarial work. Throughout my career, I have relied upon senior actuaries to show me the ropes. Even with more than 10 years of experience, not a day goes by that I'm not asking another actuary for advice or to review my work.

Now imagine you are transported to a company where you are the only actuary. To make matters worse, your boss is a businessperson with little understanding of actuarial science and who has aggressive growth goals to meet. This situation is a typical one for our mentees to face.

The most important task for a mentor is to provide much-needed guidance to our mentees. This can take many forms. I've discussed detailed reserving methodology, Excel best practices, how to be an effective manager and much more with my mentees. Being a mentor is tremendously rewarding, and it is great

preparation for newly credentialed actuaries looking to gain experience as managers.

Barriers to Passing Exams

Complaining about actuarial exams with our peers is a time-honored tradition. The exams are extremely challenging and one can work extremely hard and still have nothing to show at the end of the day.

But we often take for granted certain advantages that do not exist in many developing nations. Most companies offer study time during work hours and pay for actuarial students' exam registration and study materials.

Many of our mentees face a daunting set of challenges. Imagine risking a substantial portion of your salary to pay for exam registration and materials (it is worth noting that the societies and some vendors offer discounts to developing nations). You are given no time at work to study and you have an unpredictable, one-hour commute each way. You are one of the few people in your company or even in your city or country who knows what it's like to struggle with the actuarial exams.

As a mentor, you have the opportunity to help bridge these gaps. We ask each mentor who applies if he or she wishes to tutor a mentee. Through your relationship, you can teach exam concepts, work through problems, and provide emotional support for your mentee.

Recurring Meetings with Clear Goals

I've found, through my own experience and from the experience of others, that it is important to schedule recurring meetings with clear goals. I've discovered every two weeks to be a good frequency, knowing that some meetings will inevitably need to be canceled.

Setting a default meeting time helps make sure the lines of communication stay open. There are often substantial time zone differences, so available meeting times can be limited. The mentee should plan topics for discussion for each meeting. This doesn't have to be time consuming, but a few minutes of planning can dramatically increase productivity.

It has been a wonderful journey so far with this program, and I look forward to it continuing in the future. Please consider applying to the Actuaries Without Borders Global Mentorship Program. You can find both the mentor and mentee online applications at this [link](#). ■



Michael Mendel, FCAS, MAAA, is the program manager for the Actuaries Without Borders Global Mentorship Program and a pricing actuary for Zurich North America based in Chicago. Please feel free to reach out at mendel.actuarial@gmail.com with any questions.

IAA Monograph on IFRS 17 Risk Adjustments

By Douglas Van Dam

This article first appeared in the December 2018 edition of Financial Reporter. It is reprinted here with permission.

In May 2018, the International Actuarial Association (IAA) published a textbook-sized monograph, “Risk Adjustments for Insurance Contracts Under IFRS 17.” Work on this monograph had begun well before IFRS 17 was finalized in May 2017. IFRS 17 is a principle-based global reporting standard for insurance contracts. The Risk Adjustment (RA) is part of the general measurement model, which applies to both long-duration contracts and to the claim reserves for short-duration contracts. IFRS 17 describes the purpose of the RA, and some characteristics the RA should have, but it does not have any rules on how the RA is to be calculated. One of the purposes of this monograph is to provide some techniques and methods for meeting the obligation to calculate the RA.

This monograph will be an important resource for anyone responsible for calculating the RA under IFRS 17. It is also a valuable tool for anyone who wants to know what the RA represents and how it affects the period-to-period financial reporting of companies subject to IFRS 17. It is suitable for beginners and those with some experience. Even for actuaries familiar with risk margins under Solvency II, it is a good resource for explaining the differences between the risk margin and the RA.

The monograph begins with an introduction and description of the principles underlying the RA. Techniques, effects of risk mitigation, validation and remeasurement are topics covered. Disclosure is an important aspect of IFRS 17 and RA disclosure has its own chapter.

The final chapter has several very helpful case studies. The spreadsheets to support the case studies come along with the book. As actuaries, we like to get into the numbers, and this is a good way to test some simple examples. The first example is a cost of capital technique applied to a simple 5-year term. The second example is a Wang Transformation applied to a deferred annuity, with a comparison to a cost of capital technique. The



third example is a confidence-level technique applied to a block of group long-term disability. Fourth is a Wang Transformation applied to commercial auto liability, and this is again compared with a cost of capital technique for the same block. The final example is an aggregation of risk adjustments using copulas.

This monograph will be an important resource for anyone responsible for calculating the RA under IFRS 17.

The monograph was commissioned by the Insurance Accounting Committee (IAC) of the IAA. The Financial Reporting section provided partial funding for this work. The monograph can be ordered on the IAA website, www.actuaries.org, under Publications and Overview. It is available both in print and as an e-book. The other two monographs featured on that page, “Stochastic Modeling” and “Discount Rates,” were also commissioned by the IAC and received partial funding from the Financial Reporting Section. ■



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From Actuary to Global Innovator

By Queenie Chow

Editors Note: This article was originally published in the *Impact Insurance* blog <https://medium.com/impact-insurance/from-actuary-to-global-innovator-a51fc280665e>. It is lightly edited for clarity and reprinted here with permission.

Experiencing the “coffee is our bread” culture of drinking at least three cups of coffee a day in Ethiopia, fighting aggressively with the Nigerian consulate to get a visa sticker, running a frantic marketing road-show campaign for a micro-health insurance product along the jagged roads of the Kayole Soweto slums in Kenya, sitting in on a microfinance group meeting in the rural village of Laguna in the Philippines . . . These experiences are just a glimpse of my many memorable adventures as an ILO Impact Insurance Fellow.



My previous volunteering experience in Togo had opened my eyes to the boundless world of microinsurance. The two-year ILO fellowship gave me valuable experience working alongside global microinsurance specialists at MicroEnsure, developing innovative products for the mass market across Africa and Asia.

MicroEnsure has over a decade of experience of introducing innovations in insurance for the low-income market. During this time, MicroEnsure has reached over 60 million customers, of whom 4 out of 5 had never experienced insurance before. This also gives it a decade’s experience learning how to innovate

in a traditionally risk-adverse industry. It has experimented with how best to make use of its staff’s talents and ideas, how to spot the difference between ideas with potential and those to discard, and how to scale up new initiatives. It has learnt several important principles in designing customer-centric products: create simple policies, design in local context, cover likely events, and think outside the box. It goes where its customers live and work and listens to their concerns and, rather than trying to fit pre-existing products to those concerns, it designs new products to meet them.

I had the privilege of running various hands-on innovation projects in Kenya and Philippines. In these fast-growing markets, I managed sales forces, recruited staff, conducted design sprints, developed customer-centric products, performed market research and conducted rapid testing to find real, paying customers. I also discovered that insurance can be as creative, innovative and exciting as you are prepared to make it! The fellowship allowed me to see beyond technical actuarial calculations to the bigger picture of product development and innovation.

Entering a totally unknown country and market can be daunting, particularly when your goal is to help solve complicated problems for the vulnerable population. During my fellowship, I had the honor of working in several markets across Africa and Asia. I learnt priceless lessons in applying my problem-solving skills and a systematic approach to just about any problem. Faced with immense challenges, I now have the confidence to dissect problems, delve into understanding the market, and find solutions.

The Impact Insurance Fellowship also gave me the opportunity to work as part of a culturally diverse team and to develop a global mindset. I have not only been able to connect with numerous professional contacts in this global industry but have also made many life-long friends. I have learnt that an effective and passionate team with members located around the world is capable of driving global initiatives in inclusive insurance.

I am glad that I seized the opportunity to become an ILO Impact Insurance Fellow. In doing so, I expanded my actuarial career into the global innovation space of microinsurance. ■



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Blockchain: A UK/ European Perspective

By Mark Farrell

You've heard of blockchain, right? Of course you have! Blockchain appears to be everywhere these days and is receiving an increasing amount of attention in various media channels. Thanks in part to the meteoric rise and partial fall of the volatile bitcoin crypto currency, which utilizes blockchain as its underlying technology, blockchain has risen in prominence over the past couple of years. In many circles it is now being heralded as another new technology that promises to change the world as we know it.

But promises are one thing, and reality is another. Will the current hype of blockchain really significantly change the financial world as we know it? Or is it another example of hype that will be forgotten about as we move on to the next big thing? I don't believe so. In my humble opinion, blockchain is here to stay and actuaries should be paying very close attention.

This article, directed at actuaries, will explain the basics of blockchain in very simple terms and we will then examine some UK/European-based use cases where blockchain is already being used or developed.

WHAT IS BLOCKCHAIN?

Blockchain is essentially a peer-to-peer data storage technology that aims to remove the need for intermediaries. The need for trusted third parties in transactions oftentimes results in significant expense and time delays. But what exactly is this technology?

First the long-winded definition: Blockchain is described as a transparent replicated, secure, decentralized, incorruptible, immutable, irrefutable, distributed ledger of economic transactions in a database utilizing "blocks" that are time-stamped using cryptographic encryption. Wow—lots of big words! Let's take a big step back and try and keep things simple.

First, I want you to imagine the favorite tool of the junior actuary. Yes, the humble spreadsheet that we all know and love (or hate if you are a data scientist!). It turns out that blockchain is kind of like an Excel spreadsheet. They share a lot in common. For example:

1. **Spreadsheet rows are analogous to blockchain blocks.** A block is essentially a collection of data. In a similar fashion to a ledger spreadsheet having rows added, a blockchain has blocks of information added. Each block is viewed as a legally valid record of a transaction and together they form a chain of blocks (i.e., a blockchain).
2. **Shared access (but with no central owner).** In the same way a single Google spreadsheet can be shared and seen among all users, a blockchain is transparently distributed across a diffuse network of personal computers or servers (known as nodes) in a decentralized fashion. Any changes made will occur instantaneously within the entire network. Furthermore, this decentralized sharing also results in the blockchain being immutable thanks largely to consensus-driven collaboration. The decentralized aspect of the blockchain technology also means that transactions cannot be lost or manipulated.
3. **Locked spreadsheet cells = Secure blockchain.** In a similar fashion to spreadsheet cells or rows being locked to avoid changes, the blockchain does not allow the editing of any information that is already there. Any changes must be made via the addition of a new block of information. This is important since it means that all historic changes are transparently recorded providing an audit trail that is available to the blockchain members.
4. **Password protection = blockchain hashing.** Spreadsheets can be somewhat protected via a password system. In contrast, blockchains utilize cryptography and hashing to enhance security. The process of hashing involves taking an input value and then applying a mathematical algorithm to produce a cryptographic output of a fixed length. This hashing process enhances the security of the data as individuals attempting to reverse engineer simply cannot deduce the original input value.

So what does this all mean? The advocates (of which there are many) of blockchain technology point to its ability to solve the issue of trust across networks. Complete strangers are supposedly able to complete transactions with minimal middleman interaction (and hence friction payments) and without the risk of counterparty default.

BLOCKCHAIN INDUSTRY IMPACT

Blockchain has been touted as having the potential to change many industries. The promised lands of change range from banking to finance to security to health care to marketing and even entertainment. As I said, there are some big promises being made when it comes to blockchain!

For actuaries, the main industry of interest is of course insurance. On the face of it, blockchain would appear to make enormous sense to use within the insurance world. Operational inefficiencies abound in insurance as manual claims handling and other frictions permeate throughout the chain. Furthermore, insurance is built on a foundation of trust and given that this foundation seems to have been somewhat shaken over the past few decades, many now view blockchain (also known as “the internet of trust”) potentially coming to the partial rescue.

SMART CONTRACTS

Perhaps the main use of blockchain within insurance is the enabling of event-triggered smart contracts. Under such a contract, claims processing could be automated such that the policyholder does not have to make a claim and the insurer does not have to administer the claim. Verified inputs that are clear, objective and unambiguous (such as that from death registries, or official weather reports, for example) would be recorded on the blockchain and if the conditions for paying out on the smart contract are met then the smart contract automatically pays out. Plain, simple, automated, cost reducing and with the potential to largely counteract fraud and enhance customer satisfaction—what’s not to like about this grandiose blockchain theory?

To provide a tangible feel to the blockchain smart contract let’s examine some UK/European-based insurance blockchain-use cases that are currently in existence. First we will look at a marine blockchain insurance solution that has been developed by Ernst & Young (EY) in the UK along with Guardtime, A. P. Møller-Maersk, Microsoft, Willis Towers Watson, XL Catlin, MS Amlin and ACORD and is now in commercial use. Second, we will discuss French multinational insurer AXA’s recently launched flight delay insurance that runs off a blockchain platform. Third, we will review a product being developed and built by the European-based Etherisc community.¹

Marine Insurance

Marine insurance covers a ship’s vessel, its container boxes and cargo as well as various liabilities (e.g., pollution) that ship owners may incur. Marine insurance is notoriously lacking in transparency and expediency due to a large number of intermediaries that are typically involved in the inefficient and costly purchase of cover. EY, Guardtime and a number of other insurance industry leaders recently launched “Insurwave,” described as the world’s first blockchain solution for marine insurance. The blockchain solution was designed to remove many of the inefficiencies the industry has historically experienced. The proof of concept was deemed to be a success and in May 2018 the product was commercially released.

The Insurwave platform uses distributed ledgers to store additional data points allowing for more sophisticated underwriting

as well as smart technology contracts to reduce costs throughout the chain. According to the EY website² the “technology will support more than half a million automated ledger transactions and help manage risk for more than 1,000 commercial vessels in the first year.” London-based EY global insurance leader Shaun Crawford is leading the project and had the following to say: “The platform allows multinational companies to share vital data sets relating to the assets that are being shipped around the world with brokers, insurers and reinsurers in a secure, private network. InsurWave brings much-needed technology to the industry and removes the need to maintain a paper trail while giving everyone in the value chain ‘a single version of the truth’ on a near real-time basis. If data on the ships changes, for example, or there are losses, everyone in the chain is notified.” When I recently spoke with Shaun he mentioned that they are now planning to build out their offering in both China and Singapore. More proof indeed that blockchain is here to stay.

Perhaps the main use of blockchain within insurance is the enabling of event-triggered smart contracts.

Flight Delay Insurance

In 2017 French insurer AXA released a blockchain-based insurance product called “Fizzy”³ that utilizes smart contracts to pay out on flights that are delayed for a period of more than two hours. Flight delays are tracked in real time through global air databases and get recorded as fact on the blockchain, eventually resulting in an automated payout for the policyholders without the need for a claim filing or additional paperwork.

While the scale of this project is admittedly small, when one considers the number of daily delayed flights across the globe and the policyholder hassle factor involved in claiming for a flight delay, it isn’t difficult to imagine why this type of insurance will increasingly appeal to many travelers who value simplicity and convenience. I know from my own experience that claiming for a risk on something like this is typically cumbersome, time consuming and frustrating and I can certainly see the appeal from a customer point of view. Interestingly, while the insurance company may save on administrative costs, they will also need to consider the additional costs they bear from paying out on 100% of eligible claims, as many previous nonclaiming policyholders are given automated payouts.

Hurricane Protection

Etherisc is described as a decentralized platform built for the insurance industry, and since 2016 they have been building and

developing various decentralized insurance apps on the Ethereum blockchain.

An example product developed by the Etherisc community is their hurricane protection solution that aims to protect low-income individuals and small business owners from the damage caused by hurricanes. According to their website—<https://hurricaneguard.io/>—automatic claims are paid out if wind speeds are recorded within 30 miles of the individual’s home or business. Again, one can see how the input that clearly and objectively defines the payout (in this case wind speed and distance from an individual’s property) can be recorded on a public blockchain, resulting in automation, reduced overheads and quick service. In fact, Hurricane Guard’s website compares the 9–12 month regular insurance payout period to their envisaged (the product is not yet licensed) payout period of 24 hours as well as pointing to a much-reduced premium, complete transparency and zero deductible.

SUMMARY

While blockchain is still very much in a developing stage, clearly it is already having an impact and could well be a technology

that will rival the internet in terms of influence on business. Insurance companies seem particularly well placed to benefit, and it will be interesting to watch how things unfold over the next few years. Of course, there are still many hurdles to overcome including scaling the technology, regulation and obtaining consumer confidence. Whatever your view on blockchain, I think it is safe to say that insurance is rapidly changing as we continue to enter the digital age where technology-based solutions increasingly permeate throughout businesses. ■



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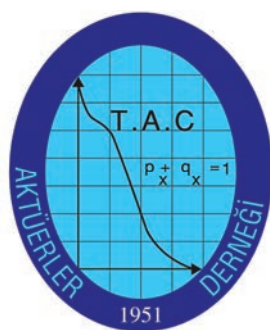
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The Actuarial Profession in Turkey

By Taylan Matkap

The Actuarial Society of Turkey (AST) is a professional association that was established on May 25, 1951. The mission of the Actuarial Society of Turkey is to serve the public and Turkish actuarial profession. Primary purposes of the AST are to contribute to the development of actuarial science, to increase the professional knowledge of members, to protect the professional interests of members and their clients and to ensure solidarity among them. The Actuarial Society of Turkey is a full member of the International Actuarial Association (IAA) and Actuarial Association of Europe (AAE).



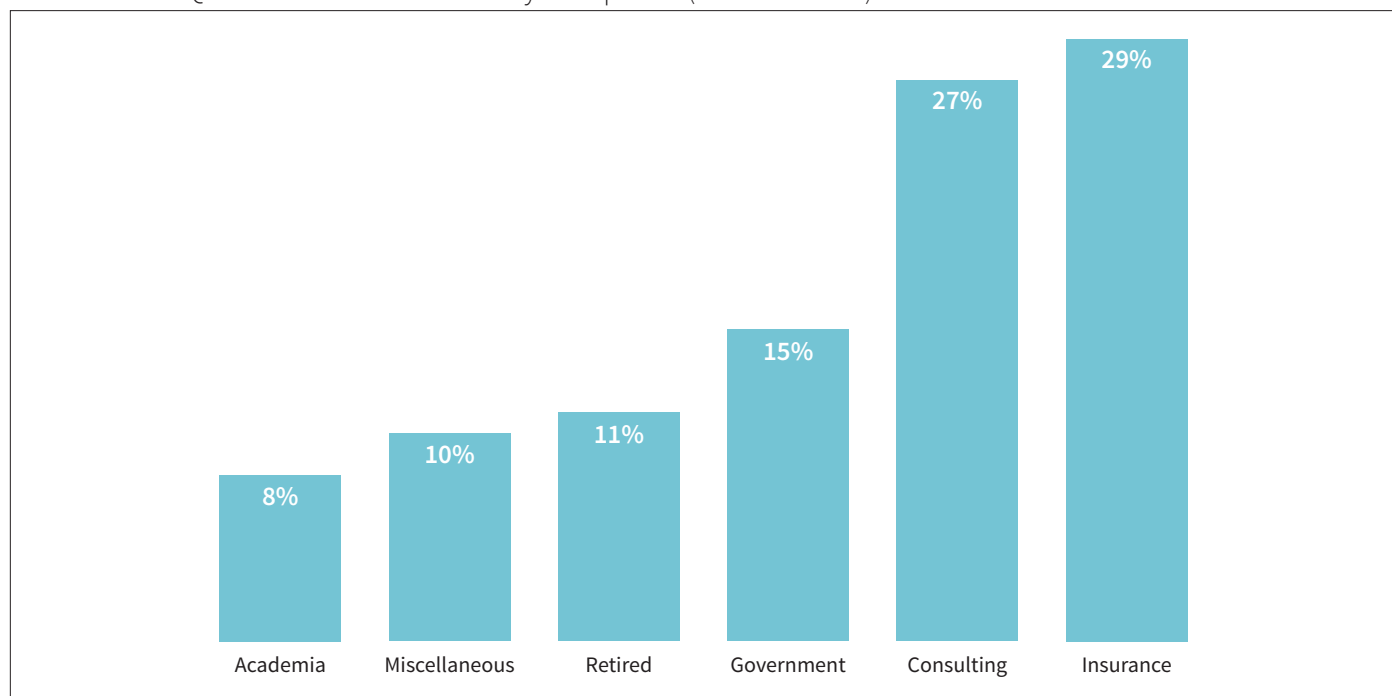
The activities of the AST, currently led by President Taylan Matkap, aim at promoting the professional abilities of Turkish actuaries and securing the standards of the practice. The Actuarial Society of Turkey hosted the first regional actuarial seminar in Istanbul, which took place on November 9–10, 2017, with the support of the IAA’s Eurasia and Middle East Subcommittee (EMESC) of the Advice and Assistance Committee. The AST also held a conference regarding the International Financial Reporting Standards 17 (IFRS 17) on Sept. 13, 2018.

The AST has more than 140 actuaries as members who are employed by insurance, pension or reinsurance companies, as well as brokers, educational institutions, state insurance departments, the government and independent consulting firms.

According to the AST’s 2018 statistics, 29 percent of the qualified actuaries are employed in the insurance industry, 27 percent in consulting fields, 15 percent in public office and 8 percent by the universities. Moreover, 11 percent of them are retired and the remaining 10 percent work in various other fields (see Figure 1).

Seven universities presently offer a four-year insurance and actuarial science program. To become a registered qualified actuary in Turkey, it is compulsory to be a university graduate. Moreover, three years of experience must be completed in

Figure 1
Distribution of Qualified Turkish Actuaries by Occupation (2018 Statistics)



Source: Actuarial Society of Turkey

In addition to passing all the actuarial exams that are administered by the Ministry of Treasury and Finance. There are 13 examinations under three levels that are administered twice in spring and fall every year.

One cannot take the exams for next level without successfully passing all exams at the previous level.

The exams that need to be passed for Level 1:

- Math
- Statistics-Probability
- Fundamentals of Insurance and Economics
- Financial Math

The exams that need to be passed for Level 2:

- Accounting and Financial Reporting
- Insurance Math
- Risk Analysis and Actuarial Modeling
- Financial Theory

The exams that need to be passed for Level 3:

- Finance, Investment and Risk Management
- Life Insurance

- Nonlife Insurance
- Health Insurance
- Pension Systems

All of the four exams from the first level have to be completed to become a “Trainee Actuary.” All the exams in the first two levels have to be completed to become an “Assistant Actuary.” To become a qualified actuary, all of the exams have to be passed and the experience condition must be satisfied.

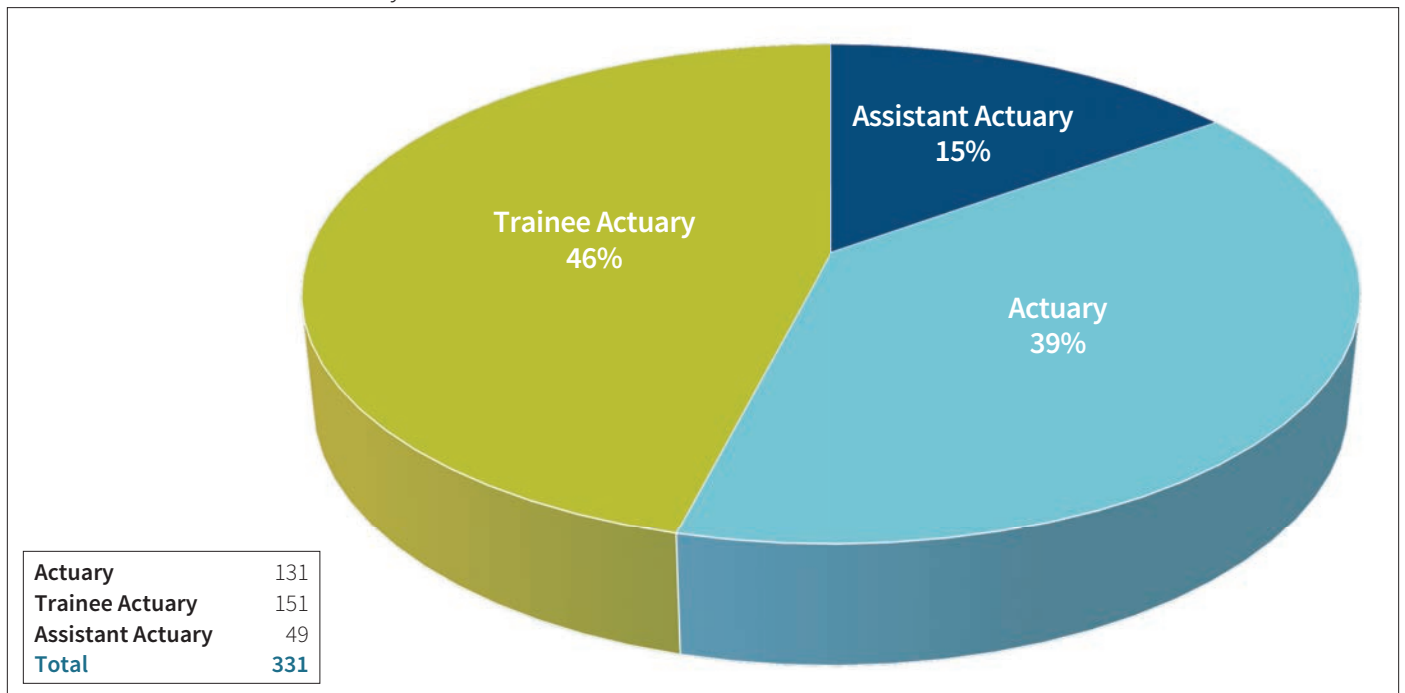
Also, a qualified actuary is required to enroll in AST education courses that cover recent actuarial application developments over the past three years. The classes seek to bring the actuaries up to date on emerging issues and their potential effects on the profession.

According to the 2018 records of the Ministry of Treasury and Finance, there are 131 Actuaries, 49 Assistant Actuaries and 151 Trainee Actuaries in Turkey, as shown in Figure 2. ■



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Figure 2
Breakdown of Actuaries in Turkey



Source: Actuarial Society of Turkey

Actuarial Paradigms: Some Stability in a Changing World

By Jules Gribble and Lesley Traverso

The world, both professionally and individually, is changing at an ever-increasing pace, with no letup in sight. There are many articles on the future of the actuarial profession, with varying levels of optimism.^{1,2}

This article follows on from two key sources: a recent series of articles in this newsletter by Gribble and Sarukkali³ and a recent paper by Gribble and Traverso.⁴ The first of these focused on the importance of professionalism—that is, on the “how” we, as actuaries, conduct our actuarial activities, not the technical “what” of the outcomes. The second suggests that the actuarial skillset is well suited to changing future needs but requires rebranding, redirection of learning and reframing of the profession.

In the face of all this change, especially regarding technical skills for actuaries, some type of “out with the old, in with the new” reaction may occur. We suggest that while it is clear that technical skills need to be updated to reflect progress and interactions with other disciplines, there is also benefit in taking a moment

to stand back and reflect on what makes the actuarial profession distinct from other analytic professions.

MAKING RARITY A VIRTUE

Compared to other established and newer professions, there are very few actuaries in the world. Fewer than 100,000 individual actuaries compared to millions of accountants, lawyers, doctors, and so on. There are currently just more than 4,000 CERAs. In some countries there are virtually no actuaries. This is not criticising the profession, but highlighting that the profession will never dominate new and growing areas by number.

We therefore need to compete and add value in other ways than simply “being a good techie.”

THE BALANCED ACTUARY

In our view there are two broad sets of skills an actuary needs, “technical” and “professional.” The balance of emphasis between the two will vary between individuals. The technical skills are the actuarial mathematics and models, et cetera, and the professional skills are the wider and more interactive business, judgment and communication skills.

Technical skills are a necessary condition for success. However, they are not sufficient. Professional behavior is a sufficient condition for success, both as individual actuaries and for the actuarial profession. That is, becoming a good actuary requires both the technical skills and the professional skills. It is this combination that helps set the actuarial profession apart and supports it in delivering good value to its clients. In this environment, ongoing professional education is at least as important, if not more so, than initial professional education.

Succinctly defining what an actuary “does” has challenged many people all over the world. We suggest that limiting the focus to actuarial outputs such as “determine liabilities for . . .,” “calculate the premiums for . . .” or “build a model for . . .” and focusing on specific outputs can hide the multiple skills needed to accomplish them. It also masks the reality that these skills are eminently transferable to other analytical and strategic problems across a range of domains. This puts us in a much better position to differentiate the actuarial skillset from other analytically based professions. We are then better placed to answer the question “Why should I use an actuary to . . .” with “Because they have the following integrated set skills that can . . .” (which others do not). Also, more important, by emphasizing an outward-looking perspective, this approach supports the search for new ways that actuaries’ skills can be applied to new areas and in new ways.

There needs to be increased emphasis on identifying a set of transferable skills actuaries develop, rather than on what specific things they can do with them. This is not to belittle those things



and in some cases, particularly in more traditional and statutory-focused areas, actuaries may be specifically or uniquely qualified to perform those tasks. Indeed, in some cases legislation or regulation may require that actuaries perform and/or certify certain tasks. It is, however, to look at a much broader landscape.

Identifying these transferable skills, or “actuarial paradigms,” is an important part of identifying the key differentiators between actuaries and other technicians who may be just as good at using specific tools. Further, a key aspect of this is that actuaries bring and apply their higher-order skills as a package: that is, they bring a portfolio of skills to bear. It is the ability to offer a highly skilled portfolio approach that provides the uniqueness of actuaries, more than any specific individual skill. That is, *the whole is greater than the sum of the parts*. Each of the parts is needed, but it is how they are combined, and the insights and synergies that are generated, that provides the key to the robustness and insights of the outcomes. This applies to both the technical and professional skills.

There needs to be increased emphasis on identifying a set of transferable skills actuaries develop, rather than on what specific things they can do with them.

Professional skills are diverse and can be harder to acquire and quantify than technical skills. However, we can all look around our professional worlds and see some whom we intuitively feel are good and trustworthy actuaries, with high standards and integrity, who clearly deliver value and insight to their clients, supporting them in making better and more informed decisions. We also all know of examples to the contrary.

In their most recent article Gribble and Sarukkali provided a list of topics to consider when delivering professional actuarial services. This highlights the ever-present need for professional behavior. It also suggests there are two main streams of professional skills, those focused on communication and those focused on the application of those skills, including ethics, moral judgment and public interest.

ACTUARIAL PARADIGMS

Actuarial paradigms should be stable over time and provide a high level basis for the profession to use moving forward. They are analogous to a set of principles that can be applied in many situations. Outcomes from applying principles to a particular

situation will depend on the specifics of the situations. As circumstances change outcomes will likely also change. However, the principles do not. It is also inherent that the application of principles requires professional judgment. This is the price paid for flexibility. While this is easy to say, it represents a fundamental change in approach and attitude compared to seeking rules to apply without thought. Rules are typically made by another person and may offer convenience and a semblance of security, but they may also avoid the need to apply professional (actuarial) skills and judgment. We are all familiar with the traps and deficiencies of seeking to apply “black letter” law in situations not contemplated when that law was constructed. This is not to say there is not a place for clear rules—there is. For example, if an insurer is considered to be failing by a supervisor, there is clear need for precise rules regarding how and when interventions may be made.

The following list of actuarial paradigms is taken from Gribble and Traverso. We do not presume this is a comprehensive or final list but provide it to promote further discussion.

Technical actuarial paradigms (in no particular order of importance):

- Understand equity. At a macro level, over time and between groups.
- Apply judgment in the choice of tools and have a sense of consequence when interpreting their outputs.
- Take a long-term perspective.
- Assess and manage inadequate or incomplete data and its consequences.
- Quantification: Develop, manage and apply models. (Often, but not necessarily, assessing financial impacts.)
- Understand materiality in the context of the matter at hand.
- Set assumptions. Understand best estimates and margin.
- Apply structured analysis.
- Synthesize information, extracting higher-order outcomes and implications.
- Assess and manage future uncertainty.
- Apply unbiased professional judgment.
- Apply the actuarial control cycle process.

Professional actuarial paradigms (in no particular order of importance):

- Act in the public interest.
- Uphold the reputation of the profession and abide by relevant codes of conduct.
- Be accountable for professional actions and advice.
- Conform with professional and other required standards and legal obligations.
- Take responsibility for effective communication of outcomes and their implications for users of their services.
- Cooperate with other professionals in good faith and transparently (including take-over of services from other actuarial service providers).
- Respect confidentiality.
- Manage both real and perceived conflicts of interest.
- Appropriately disclose remuneration.
- Apply personal integrity and profession skill and care in all work.
- Understand the scope (and client expectations and capacity) of the tasks undertaken.
- Understand and manage the limits of competency and experience.
- Maintain professional and technical currency of knowledge.

THE ACTUARIAL CONTROL CYCLE: A BRIDGE

A domain-independent approach to the process of the actuarial control cycle is to have two separate cycles. We note that this approach to the control cycle makes it clear that it is a process that can be applied in many diverse areas.

The inner cycle, the analytic cycle, is centered on building a model (where model is interpreted in a broad way) and includes three parts that form a cycle.

Identify/Specify, Solve, Monitor

The focus of this cycle is on technical skills.

It can be put into a broader context that shows why it should be a core actuarial paradigm. The steps can be rephrased as “What

do you want to do,” “Attempt to do it” and “See if it worked (and if not redress the issues).” This highlights the breadth of the approach. For example, in terms of policy, it says set the policy, implement the policy and then monitor the success of the policy outcomes. This can clearly be set into, for example, a risk management or a governance context.

The outer cycle, enclosing the Analytic cycle, is focused more on governance, interpretation and communication. It consists of four parts that form a cycle.

Risk, Professionalism, Environment, Implementation

The focus of this cycle is on professional skills.

These are the “softer” skills that pick up on behavioral, cultural and ethical matters. Hence the name. While these skills may be less quantifiable and numeric than those typically associated with the analytic cycle, they are no less important. These are the skills on which the interpretation of traditional numeric actuarial work is built and that then inform decision makers. They are the critical “second leg” in delivering the actuarial value to users of the actuarial services.

The actuarial control cycle is the combination of the analytic and professional cycles, combining the technical and professional skills of actuaries. It therefore provides a bridge between the two sets of skills.

While it is easy to say, it is a fundamental strength of a cyclic approach that it repeats (and is not linear and so comes to an end). The two mutually supportive components of the actuarial control cycle are deeply embedded within the profession. Annual Financial Condition Reports are a legislated example. It therefore naturally feeds a constant improvement/check approach.

AN ACTUARIAL VALUE PROPOSITION: A TARGET

Gribble and Traverso suggest an actuarial value proposition in their paper. It is reproduced here to provide a focus for our discussions in that the overall objective is to successfully carry out the proposition. This provides a “target” for actuarial activities both at the individual and association level.

Actuarial Value Proposition

Actuarial value is delivered to a recipient of actuarial services when that recipient:

- Has their reasonable expectations met with unbiased advice on events that lead to uncertain outcomes;
- Has the advice effectively communicated in a way that supports the recipient making better informed business decisions; and,



- Has confidence that the advice provided has been arrived at by an individual who has sufficient education and experience to make that judgment and is bounded by a code of professional conduct.

Continuing Professional Development (CPD): An Ongoing Process

Actuaries need to be committed to lifelong learning. Having achieved their initial qualifications, they need to continue to learn from experience and enhance their skills. Once they have their “actuarial driver’s licence” they need to improve as “actuarial drivers.” The mix of both technical and professional skills changes as situations change, and as actuaries move through their careers they need to continue to develop these skills.

Building a portfolio of skills should be part of both the technical and professional dimensions of actuarial education, initial and continuing. The ongoing development of these higher skills then forms part of every actuary’s CPD. The importance of taking a portfolio approach and extracting transferable skills is clearly demonstrated when reading advice offered by experienced actuaries who have moved into management positions.

CONCLUSION

We hope this paper has stimulated you to consider the bigger picture of the role actuaries have and the transferable skills they need to grow and thrive as a profession in an evolving world. We suggest that identifying underlying actuarial paradigms, both technical and professional, coupled with a portfolio approach to applying these skills, provides a sustainable path to the future for the profession. We welcome your comment and feedback. ■

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