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SECTION

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# International News

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# Editor's Note

By Arpita Das

Welcome to the September 2018 issue of *International News*. This issue is indeed a special one that brings to life a variety of events around the world involving our community. The International Congress of Actuaries (ICA) was held in June in Berlin, where we had the pleasure of meeting many of you in person for the first time—readers, authors, editors and fellow Society of Actuaries (SOA) members. We present to you two articles on the ICA, one by our editorial board member, Carlos Arocha, and another by Cathy Lyn, former chair of the International Association of Consulting Actuaries (IACA) and contributing author for this newsletter. The ICA was a unique opportunity to build connections across our international community. We also feature two articles on the SOA's Latin America Committee and recent developments in Colombia and Argentina. Our SOA staff partner, Ben Marshall, presents a piece on the Actuarial Research Conference (ARC) in Canada.

In addition to the latest happenings within our community, we bring to you a range of actuarial perspectives from around the globe. Two hot topics from the regulatory world that affect many of us are International Financial Reporting Standard (IFRS) 17 and the General Data Protection Regulation (GDPR), both of which are featured in this issue. In the Middle East and Africa we discuss education, microinsurance and risk frameworks. In Asia we cover a discussion around one of the newest International Association of Actuaries (IAA) member groups, professionalism and individual interviews.

Finally, this issue marks the end of 2018 for us and with that it is also time to say goodbye to one of the long-time leaders of the section, Vincent Xuan. Vincent has had numerous responsibilities, most recently as chair, and also as council member and chief editor of the newsletter. On a personal note, it has been a true



pleasure working with Vincent both as a fellow council member and editor over the last few years. He will be truly missed and we wish him continued success in the future.

That is it for now. I hope you enjoy delving into this issue and I look forward to seeing you next in 2019. ■



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# Chairperson's Corner

By Vincent Xuan

**T**ime flies, and it is time to say goodbye again. About two years ago, I remember saying farewell when I stepped away from the editorial board. On Oct. 17, I will finish my three-year term on the council.

When I am completing a mission or starting something new, I always have mixed emotions, I am proud of the council's achievements but I also reflect on the opportunities we may have missed. Nonetheless, I believe the next council will carry on the vision and mission for continued great services to our members.

Recently I joined a panel at the Spring meeting of the Actuarial Society of New York, to share the experience of volunteering for the Society of Actuaries (SOA). Representatives from four SOA section councils—Entrepreneurial & Innovation, Tax, Modeling, and International—shared their experiences volunteering for the actuarial community and all found it to be rewarding and fulfilling. Earlier this year, at the Council of Section Chairs meeting in Chicago, I was part of a panel that discussed member engagement, specifically how to engage the SOA's Millennial members, who scored lowest in engagement. I joined the panel of six Millennials from the section councils, to discuss potential causes of this low engagement and collectively we brainstormed solutions. It was refreshing to see that the SOA board is focused on this issue, and has formed a task force to address it.

This year, I am pleased to say that we have a full slate of candidates for the next council. If you have not yet voted, please do so. I am confident that our new council will bring a bountiful supply of fresh ideas. I also encourage you to seek out all the opportunities the SOA has to offer, including working on your leadership skills, networking with others in the industry, and developing your project management skills.

I also invite you to give back to the community. I find that volunteering creates a great sense of fulfillment. Among everything that the council has accomplished this year, our networking events stand out as both new and successful. To date, the council has organized two events in New York City, and another two in Berlin, Germany (*Please refer to the article from our friend of the council, Carlos Arocha*). With the refreshed ambassador program, we expect to extend this initiative to include more countries overseas. We also plan to co-sponsor additional events with local actuarial associations and clubs in locations with a high concentration of actuaries.

I also invite you to give back to the community. I find that volunteering creates a great sense of fulfillment.

I want to thank our dedicated team. I am very impressed by all the hard work carried out by the council members, especially our Vice Chair, **Wendy Kwan**, who has been instrumental in organizing International Section sponsored sessions and events at the SOA Annual Meeting and social networking events. I'd also like to recognize **Arpita Das** and **Milanthi Sarukkali** for creating excellent editions of *International News*. Lastly, I'd like to thank our staff partner, **Ben Marshall**, and section specialist, **Jane Lesch**, for their close partnership, which is essential for executing our initiatives.

To all in the International Section, it is hard to say 再会 to an old friend, especially after six years. As for my remaining days at the council, I am hoping to meet as many members as I can.

Hope to see you at one of our educational sessions or networking events during the 2018 SOA Annual Meeting & Exhibit in the Music City! ■



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# ICA 2018: A Gathering of Actuaries from 102 Countries

By Carlos Arocha

Amid a heat wave that hit Berlin in early June 2018, more than 2,750 actuaries attended the 31st edition of the International Congress of Actuaries (ICA 2018). The congress was organized by the International Actuarial Association and was hosted by the German Association of Actuaries (better known by its German acronym, DAV<sup>1</sup>). ICA 2018 was great on many counts—superb ambiance, high-quality academic content, and fruitful networking, just to name a few.

ICA 2018 in Numbers	
Delegates:	2,750
Countries represented:	102
Contributed papers:	364
Speakers/moderators:	500
Hours of virtual content:	150

Several leading representatives from insurance and regulation, such as Gabriel Bernardino, chairman of the European Insurance and Occupational Pensions Authority, Peter Praet, member of the Executive Board of the European Central Bank, and Corinne Trocellier, chief operating officer of SCOR Global Life, spoke at ICA 2018.

Speaking at the opening session, the president of DAV, Roland Weber, discussed several important themes for the actuarial profession, such as the changing role of the actuary. He also highlighted that digitization is not a trend to be feared, but one that will provide more opportunities for actuaries. The president of the International Actuarial Association (IAA), Masaaki Yoshimura, declared the congress open.

A session dedicated to the SOA Student Research Case Study Challenge featured European-based finalists presenting their work. This year's winner was a team from the University of Oxford.



ICA attendees gather for a casual dinner.



Carlos Arocha at ICA 2018

In addition, the SOA organized a luncheon on Monday and members of the International Section held a casual dinner at a beer garden on Wednesday.

The exhibit hall was transformed into an international actuarial arena where dozens of exhibitors showcased their products and services. But it was also the place to have lunch and coffee breaks. On the eve of the FIFA World Cup, there were games and contests around the theme of soccer.

To enhance the experience for international congress attendees and promote networking, several trip fields were offered on city highlights, history of Berlin, a Jewish heritage tour, modern architecture, etc. The welcome event, held at the Museum of Natural History in Berlin, the garden event with a sing-along, and a traditional fun-fair themed farewell event provided further networking opportunities for participants.

Berlin is full of history and was the scenery of memorable 20th century events. Berlin is also remembered by the visits of Presidents Kennedy and Reagan. It occupied a center-stage position in the Cold War. It was the symbol of division between political ideologies. Berlin provided a contrast framework for the more tolerant, open and diversified society. It was an ideal location for a beautiful gathering of 2,750 actuaries from 102 countries. ■



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#### ENDNOTE

- 1 *Deutsche Aktuarvereinigung.*

# IFRS 17 Variable Fee Approach

By Tze Ping Chng, Steve Cheung and Anson Yu

*Editor's Note: This article originally appeared in The Financial Reporter, March 2018, and has been lightly edited for publication in International News. It is reprinted here with permission.*

After a very long journey, the International Accounting Standards Board (IASB) issued IFRS 17 *Insurance Contracts* (IFRS 17). IFRS 17 replaces IFRS 4 that was issued in 2004. The overall objective is to provide a more useful and consistent accounting model for insurance contracts among entities issuing insurance contracts globally.

## GENERAL MODEL AND VARIABLE FEE APPROACH

The IASB introduces a general accounting model (GM, previously called building-block approach) for the insurance contract liability measurement.<sup>1</sup> In order to cater to the unique features of insurance contracts with direct participation features, IFRS 17 provides for a specific approach called the variable fee approach (VFA). Insurance contracts with direct participation features (or “direct participating contracts”) are insurance contracts that are substantially investment-related service contracts under which an entity promises an investment return based on underlying items. These may be regarded as creating an obligation to pay policyholders an amount that is equal to the fair value of the underlying items, less a variable fee for service.

VFA is a modification of GM in order to reflect the nature and economics of these direct participating contracts. Table 1 summarizes the key differences between GM and VFA.

## VFA ELIGIBILITY CRITERIA

The IASB made it clear that only insurance contracts with direct participation features are eligible for the VFA, but significant judgment is required to assess the VFA eligibility, as outlined in paragraphs B101 and BC238.

*Insurance contracts with direct participation features are insurance contracts for which, on inception:*

- a. *the contractual terms specify that the policyholder participates in a share of a clearly identified pool of underlying items; (VFA criteria I)*
- b. *the entity expects to pay to the policyholder an amount equal to a substantial share of the fair value returns from the underlying items; (VFA criteria II) and*
- c. *the entity expects a substantial proportion of any change in the amounts to be paid to the policyholder to vary with the change in fair value of the underlying items. (VFA criteria III)*

## KEY CONSIDERATIONS FOR LIFE INSURERS

With the significant judgment required for the VFA eligibility assessment, we expect these to be part of the key issues to be discussed by the Transition Resource Group (TRG). Below are some evolving questions we observed from the market.

1. What is a clearly identified pool of underlying items?

The pool of underlying items can comprise any items—for example, a reference portfolio of assets, the net assets of the

Table 1  
Differences between GM and VFA

Measurement model	Changes in fulfilment cash flows (FCFs) due to the changes in financial variables	Insurance finance income or expenses
GM	All changes in discount rates and other financial variables are reported in the statement of comprehensive income	The interest expenses on the contractual service margin (CSM) are explicitly accreted using rates at the initial recognition of the contracts
VFA	CSM is adjusted to reflect the changes in the variable fee, which includes some changes in discount rates and other financial variables	The interest expenses are implicit in the changes in the insurer's variable fee

entity, or a specified subset of the net assets of the entity—as long as they are clearly identified by the contract. An entity need not hold the identified pool of underlying items because the measurement of insurance contracts should not depend on what assets the entity holds. The underlying items do not need to be a portfolio of financial assets. They can comprise items such as the net assets of the entity or a subsidiary within the group that is the reporting entity.

2. What is the definition of “contract” and “contractual terms” when defining the clearly identified pool of assets?

A contract is an agreement between two or more parties that creates enforceable rights and obligations. Enforceability of the rights and obligations in a contract is a matter of law. Contracts can be written, oral or implied by an entity’s customary business practices. Contractual terms include all terms in a contract, explicit or implied. Implied terms in a contract include those imposed by law or regulation.

There are certain features that may not satisfy VFA criteria I: (i) different portfolios of participating contracts (direct or indirect) share the same fund with a notionally separated assets in the entity’s general account, and (ii) the segregation of assets are only managed internally without enforceability or proper disclosure to the policyholders. While “ring-fenced-asset” may better meet this criterion, there are also discussions if the “accounting designation” or “entity’s governance framework and disclosure” meet this criterion. Advocates argue that commercial communication, i.e., materials presented or disclosed to the policyholders, can form part of the enforceability and the entity should consider these factors for the assessment of clearly identified pool of assets. In any case, the definition of the “underlying items” should be documented clearly, and the entity cannot change the underlying items with retrospective effects.

3. Does “a share of a clearly identified pool of underlying items” preclude the entity’s discretion to vary the amounts paid to the policyholder?

No, but the link to the underlying items must be enforceable.

4. How to interpret the word “substantial” in VFA criteria II and III?

The IASB does not provide a concrete definition for the term “substantial” as noted in the VFA criteria II and III. This is

The IASB made it clear that only insurance contracts with direct participation features are eligible for the VFA, but significant judgment is required to assess the VFA eligibility.

to allow entities to apply IFRS 17 for their particular circumstances without being limited by any quantitative rules. We expect that market consensus will converge with potential help from TRG discussion. However, a range of sharing percentages may still be expected from various jurisdictions due to different product offerings, and comparability with the fee structures of the investment products offered. An individual entity needs to perform its own assessment, and verify its conclusion with its respective auditor.

5. What is the “variable fee”?

A variable fee that the entity will deduct in exchange for the future service provided by the insurance contract, comprises: (i) the entity’s share of the fair value of the underlying items; less (ii) fulfilment cash flows that do not vary based on the returns on underlying items. Contracts eligible for VFA should specify a determinable fee that can be expressed as a percentage of portfolio returns or asset values rather than only as a monetary amount. Without a determinable fee, the share of returns on the underlying items the entity retains would be entirely at the discretion of the entity, and this would not be consistent with that amount being equivalent to a fee.

#### ILLUSTRATIVE EXAMPLE

A simple five-year investment-linked product is created to illustrate the CSM differences between VFA and GM, with the projection given in Table 2:

- Death benefit (sum assured) = fixed 500 + account value (AV)
- Maturity benefit = AV
- Level annual premium = 500
- 2 percent asset management charge (AMC)
- Cost of insurance charge (COI charge)
- 100 identical policies issued



Table 2  
Assumed projected cash flows and AV

Projected best estimate cash flows (BECFs) for 100 policies at inception						
BE projection/Year	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6
No. survival(BOY)	100	99	97	94	90	85
No. deaths(EOY)	1	2	3	4	5	
No. survival(EOY)	99	97	94	90	85	
Premium(BOY)	50,000	49,500	48,500	47,000	45,000	—
Commission(BOY)	5,000	2,475	970	—	—	—
Expense(BOY)	200	198	194	188	180	—
Death outgo(EOY)	1,000	3,030	6,186	10,638	16,667	—
Survival outgo(BOY)	—	—	—	—	—	240,833
Net CF	43,800	43,797	41,150	36,174	28,153	(240,833)

Projected policyholder AV (PHAV) for 100 policies at inception						
PHAV(BOY)	—	49,500	98,470	146,814	194,362	
Premium(BOY)	50,000	49,500	48,500	47,000	45,000	
COI charge(BOY)	(500)	(1,000)	(1,500)	(2,000)	(2,500)	
Investment income(EOY)	1,490	4,460	8,940	15,022	22,876	
AMC(EOY)	(990)	(1,960)	(2,909)	(3,836)	(4,737)	
Death outgo from PHAV(EOY)	(500)	(2,030)	(4,686)	(8,638)	(14,167)	
PHAV(EOY)	49,500	98,470	146,814	194,362	240,833	

Table 3 summarizes the key steps in calculating the initial and subsequent CSM under GM as follows:

1. FCF and initial CSM are the same under both GM and VFA. In this example, the cash flows for the FCF calculation are based on the BECFs with the following assumptions: (i) directly attributable expenses = 100% BE expenses, and (ii) investment component = death and survival outgo supported by PHAV.
2. FCF is the PV of the risk adjusted cash flows, which includes best estimate liability (BEL) and risk adjustment (RA). The discount rate (initial DR) is assumed to be the PHAV growth rate (which in this example is the risk-free yield curve). Initial CSM is the unearned profit at inception and is equal to the negative of FCF floored by zero. For simplicity, RA is assumed to be zero.
3. The number of coverage units in a group is the quantity of coverage provided by the contracts in the group, determined by considering for each contract the quantity of the

benefits provided under a contract and its expected coverage duration. In this example, it is assumed to be *the number of policy in force \* sum assured (including AV)*.

4. The BOY CSM is accreted with interest (at initial DR), and then amortized according to the coverage unit pattern.

Table 4 summarizes the key step in calculating the initial and subsequent CSM under VFA:

5. The entity's share of the change in the fair value of the underlying items is adjusted in the CSM calculation, which comprises: (i) the change in fair value of the underlying items; less (ii) the unwinding cost of the FCF. The initial CSM is the same under VFA and GM. Figure 1 illustrates that the emerging patterns of CSM are different between the two models. CSM is amortized according to the coverage unit pattern under GM while it is affected by the fair value of the underlying items and the cash flows paid to or by the entity under VFA. The CSM amortization approach under VFA is the same as the one under GM.

Table 3  
CSM under GM

Step (1): CFs for FCF calculation						
	Inception	Yr1	Yr2	Yr3	Yr4	Yr5
Premium	50,000	49,500	48,500	47,000	45,000	—
Commission & Expense	(5,200)	(2,673)	(1,164)	(188)	(180)	—
Survival outgo	—	—	—	—	—	(240,833)
Death(ins component)	—	(500)	(1,000)	(1,500)	(2,000)	(2,500)
Death(inv component)	—	(500)	(2,030)	(4,686)	(8,638)	(14,167)
Net CF (NCF)	44,800	45,827	44,306	40,626	34,182	(257,500)

Step (2): FCF calculation						
BEL	(3,200)					
RA	—					
FCF	(3,200)					

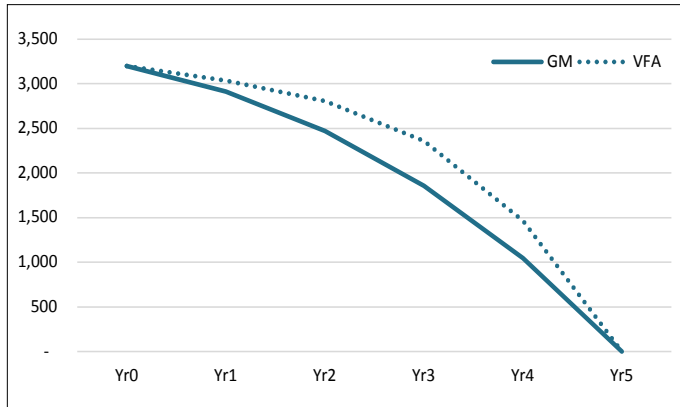
Step (3): Coverage unit						
NOP		100	99	97	94	90
SA		1,000.0	1,515.2	2,061.9	2,659.6	3,333.3
Coverage unit		100,000	150,000	200,000	250,000	300,000

Step (4): CSM under GM						
CSM(BOY)		3,200	2,913	2,472	1,858	1,047
Interest accretion		96	133	152	146	101
Amortization		(383)	(574)	(765)	(957)	(1,148)
CSM(EOY)		2,913	2,472	1,858	1,047	—

Table 4  
CSM under VFA

Step (5): CSM under VFA						
	Inception	Yr1	Yr2	Yr3	Yr4	Yr5
CSM(BOY)		3,200	3,038	2,810	2,358	1,467
Change of variable fee		238	424	519	450	197
Amortization		(399)	(653)	(971)	(1,341)	(1,664)
CSM(EOY)		3,038	2,810	2,358	1,467	—

Figure 1  
Comparison of the CSM balance between VFA and GM



### CONCLUSION

There are a number of factors that require the entity’s judgment for the VFA eligibility assessment. Different assessment outcomes may result in a similar product sold by two insurers because of different management frameworks. Similarly, two products with similar economic nature (written by an insurer) may fall into different measurement models because of the contractual terms. All these may impact the comparability of results across the industry or within the same entity.

Similar to the Solvency II experience, it is expected that certain market consensus will converge for these judgmental areas. The assessment for certain products may be easier than others, depending on the complexity of the product features. The methodology and assessment should be properly documented and approved within the entity’s governance structure, and agreed with the entity’s auditor. It is also important for individual

entities to understand both the financial and operational impacts of using different measurement models at the beginning of the implementation journey. ■

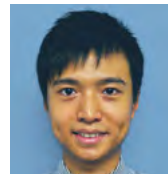
**Disclaimer:** The views reflected in this article are the views of the authors and do not necessarily reflect the views of the global EY organization or its member firms, the Society of Actuaries or the International Section.



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### ENDNOTE

- 1 Please refer to EY’s Insurance Accounting Alert (May 2017) for an IFRS 17 overview; [http://www.ey.com/Publication/vwLUAssets/Insurance\\_Accounting\\_Alert\\_May\\_2017/\\$FILE/ey-insurance-accounting-alert-may-2017.pdf](http://www.ey.com/Publication/vwLUAssets/Insurance_Accounting_Alert_May_2017/$FILE/ey-insurance-accounting-alert-may-2017.pdf)

# Actuaries Without Borders Global Mentorship Program: A Growing Success Story



**A**ctuaries Without Borders (AWB®) is a section of the International Actuarial Association (IAA) that helps provide temporary actuarial services in parts of the world where actuarial resources are lacking. It provides temporary actuarial education services covering all actuarial practice areas.

In February 2017, AWB officially launched the Global Mentorship Program (GMP). In May 2017, GMP entered into a collaboration with the African Insurance Organisation (AIO)<sup>1</sup>, a non-governmental association established in 1972 with members of the insurance industry, regulatory/supervisory authority, insurance training centers and national and regional associations (such as FANAF)<sup>2</sup>, mainly from Africa. The collaboration provides a global mentorship program and professional actuarial exam tutoring support for actuarial professionals in Africa in order to develop actuarial capacity. In January 2018, GMP was improved to simplify its operation by accepting online applications.

Within 18 months, GMP has grown to 200 applicants residing in 43 countries. A majority of the mentee applicants reside in Africa, Eastern Europe, Asia, and South America, with a majority of the mentor applicants residing in North America and Western Europe. The diversity of participation reinforced the global vision of this program and its contributions to the global society, especially the actuarially developing countries.

As the GMP continues to grow geographically, it encounters a shortage of actuarial professionals to act as mentors. For every mentee applicant, there is 0.7 mentor. Some of the mentors

are kind to support multiple mentees. However, the shortage continues to increase while the program continues to expand globally. Currently, we are recruiting for mentors who can provide either exam tutoring support or actuarial career support in a remote basis.

A recent testimonial from a Lynette Tasaranarwo, a mentee from Zimbabwe, is provided here:

*“I joined the mentorship program after learning of it through my employer NicosDiamond Insurance who in turn were informed of the program by the AIO. For you to understand my motivations for joining the mentorship program, I will give a bit of background. As some of you may be aware, the Zimbabwe Actuarial Society (ASZ) is an associate member of the IAA and has a membership of over 150. However the bulk of this membership is comprised of students. Fully qualified actuaries are approximately 40. Furthermore, only about 10 of these 40 actuaries currently reside and work in Zimbabwe on a full time basis. Zimbabwe has suffered brain drain as experienced actuarial professionals seek better opportunities in more developed economies.*

*As with the rest of Sub-Saharan Africa, Zimbabwe has also witnessed changes in the regulatory landscape. Much of the changes have been focused on addressing governance and risk management deficiencies. For instance, the regulator now requires that technical provisions for general insurers be certified by an actuary. The regulator has also indicated that all insurers should have an actuarial function separate from both the audit and risk management functions. Consequently, opportunities have opened up for actuarial professionals in Zimbabwe as insurers demand the actuarial skills set.*

*Myself, I am the only actuarial professional working at my organization, a leading insurer in Zimbabwe. Hence, I joined the mentorship program intending that in the process I would*

Within 18 months, GMP has grown to 200 applicants residing in 43 countries. A majority of the mentee applicants reside in Africa, Eastern Europe, Asia, and South America, with a majority of the mentor applicants residing in North America and Western Europe.



Pictured L-R: Marvellous Dumba, Lynette Tasaranarwo and Renata De Leers.

*become a more effective actuary. The program surpassed my expectation as it matched me with a mentor who has a similar interest and experience working in the non-life insurance sector.*

*Without getting into too much detail, the mentorship program has exposed me to new ideas and ways of thinking in terms of how I can translate the knowledge learnt through exams into actionable insights and practical work activities that can assist management in their decision making.*

*Through discussions with my mentor, I have been able to identify ways of leveraging my existing strengths and overcoming my weaknesses and thereby position myself to become an exponential actuary as alluded to yesterday. Most importantly the mentorship program provides a person with whom you can share and discuss challenging professional incidences one can encounter in their working life.*

*In a nutshell, the mentorship program is a knowledge exchange platform which helps to develop new relevant technical and professional skills essential in a changing world.*

*I would like to end by thanking those already volunteering under the AWB mentorship program and encouraging more of you to volunteer as mentors and mentees in the program. It doesn't take a lot of time to bring change, only one hour of your time every fortnight. Let us back the IAA and AWB's key objective of supporting the development, growth and promotion of the profession in Africa.*

*Thank you!"*

Volunteering is very useful to the people and countries receiving assistance, but also to the volunteers themselves. GMP provides an opportunity to work much more broadly than just in a professional environment to develop connections completely outside one's sphere. It is personally rewarding to see people succeed, to make a difference in these people's lives and their professional development.

For more information about the GMP, please visit the GMP website at [bit.ly/AWB-GMP](http://bit.ly/AWB-GMP).

If you have any questions about this global program before applying, please do not hesitate to contact the AWB executive director, Renata De Leers, the project manager, Bosco Chan, and the deputy project manager, Michael Mendel jointly through [AWB-MET@actuaries.org](mailto:AWB-MET@actuaries.org).

To apply as a mentor, please complete the application form at <https://www.surveymonkey.com/r/69DG67S>.

To apply as a mentee, please complete the application form at <https://www.surveymonkey.com/r/5FF28P8>. ■

#### ENDNOTES

- 1 [www.african-insurance.org](http://www.african-insurance.org)
- 2 [fanaf.org](http://fanaf.org)

# Microinsurance and Trust: Where Consistent Actions Speak Louder than Words

By Queenie Chow

“Where is your office located?” is one of the most frequent questions we get from customers when selling microinsurance through direct retail channels in Kenya. You may wonder: What does the physical location of our office have to do with the purchase of insurance? The real meaning behind this question is: If you don’t pay a claim, where can I physically hunt you down for my payment? Selling insurance is not easy, especially in an emerging market. Earning and maintaining trust with customers undoubtedly continues to be one of the greatest challenges of the insurance industry.

As far as trust goes, insurance companies typically have a poor reputation. Global research indicates that consumers trust insurance companies less than banks, car manufacturers, online shopping sites and supermarkets. With its complex rules, complicated product design, fine print, lengthy processes and even nonpayment of claims, it’s little wonder why customers distrust insurance. In the micro-sector, the lack of understanding of insurance further deteriorates its perception. The low-income segment is unsure about paying in advance for a service that they may or may not receive in the future from an institution that they do not know and, at worst, do not even trust. So how can insurance companies be creative, innovative and revolutionize customers’ experience in overcoming these challenges?

A free trial is generally recognised to be an effective way to establish goodwill and trust with new customers, so why not with insurance? The freemium and loyalty insurance products distributed via a mobile network operator (MNO) are one solution that has emerged to address the distrust challenge. Under such a business model, the Telco prepaid customers are awarded a free insurance benefit as a loyalty benefit based on the amount of airtime they purchase. That is, the more airtime customers top-up, the greater the free insurance coverage they will earn. After the trial period, customers will also be sold on paid insurance products. In turn, MNOs can create brand loyalty and

retain customers in an increasingly cutthroat market. In some instances, MNOs can also earn an additional revenue stream through a profit-sharing model.

A free trial is generally recognised to be an effective way to establish goodwill and trust with new customers, so why not with insurance? The freemium and loyalty insurance products distributed via a mobile network operator (MNO) are one solution that has emerged to address the distrust challenge.

Indeed, in leveraging the established brand name, network of distribution points and large client base of an MNO, insurance companies can build trust through such partnerships. Moreover, there is a strong correlation between the frequency of transactions and levels of trust. Some research shows that greater than 45 million lives have been insured globally through an MNO partnership model in the emerging markets. In some markets, as many as 85 percent of the customers are new to insurance and are unfamiliar with how traditional insurance works. In my recent work of managing direct consumer insurance products, I further found that successful freemium products prepare the market for paid voluntary insurance products. Of course, no one business model is without its weaknesses. The success of partnership is highly driven by the marketing and customer education efforts made by the MNO, giving little control to insurers. More importantly, the customer value and variation of insurance products offered through the MNO models have often been questioned.

Whilst the freemium MNO distribution model enables a minimal trust level with customers, ultimately trust with customers is built on paying claims. The action of paying claims certainly speaks louder than any words, but the pattern of paying claims is what earns the full trust of customers. With a consistent pattern of paying claims, customers will no longer doubt insurance companies in looking for their physical location! ■



Queenie Chow, AIAA, works in microinsurance innovations with the Impact Insurance Facility (ILO) and MicroEnsure. She is based in Manila, Philippines and can be reached at [queeniechow0320@hotmail.com](mailto:queeniechow0320@hotmail.com).

# Risk-Based Supervision, Own Risk and Solvency Assessment and Risk-Based Capital in Tanzania

By Michael Cohen

The United Republic of Tanzania consists of mainland Tanzania and Zanzibar, with its capital at Dodoma and commercial capital of Dar es Salaam, on the Indian Ocean. While Zanzibar has a good deal of autonomy in a number of areas, insurance is a union matter, so the regulatory agency, the Tanzania Insurance Regulatory Authority (TIRA), has jurisdiction over all insurance companies in Tanzania.

Tanzania is a member of the East African Community (EAC), which is trying, among other things, to create a common economic space in East Africa, including the regulation and supervision of insurance activities.

The functions and duties of TIRA are “to promote and maintain an efficient, fair, safe, and stable insurance market for the benefit and protection of policy holders,” notably to

- Coordinate and implement policies on insurance matters;
- Regulate and coordinate activities of insurers, brokers and agents;
- Specify the code of conduct for members of the insurance industry;
- Effect supervision and monitoring of insurers, brokers and agents;
- Formulate standards in the conduct of the business of insurance that shall be observed by insurers, brokers and agents; and
- Ensure proper observance of the code of ethics and practice by insurers, brokers and agents.



To date there are a total of 31 insurance companies (including one reinsurance company) licensed to transact insurance business in Tanzania. These companies are supported by insurance intermediaries consisting of 132 insurance brokers, about 539 insurance agents, and 45 loss assessors and adjusters.

Since establishment of the insurance regulatory regime in the country in 1996, supervision has been largely on a compliance basis. In order to bring regulation and supervision of the insurance industry in Tanzania toward a more modern and effective basis, I was engaged to help to implement risk-based capital, risk-based solvency, stress testing, and Own Risk and Solvency Assessment (ORSA) for Tanzanian insurers, and to provide assistance to TIRA to bring them up to speed regarding risk-based supervision. The project is funded by the International Development Agency, part of the World Bank group.

Currently, the Insurance Act and Regulations are based on what I would call “Solvency 0.” The market is dominated by property and casualty (P&C) companies, transacting mostly motor business. Reserves are not calculated on an actuarial basis, and although there is provision for reserves to be calculated properly, the vast majority of companies use the statutory basis of unearned premium plus a prescribed percentage of premium for incurred but not reported. Life insurance reserves need to be calculated on an actuarial basis and certified by an actuary. Capital is a simple percentage of reserves, one for life and a higher percentage for P&C business. There are no qualified

actuaries, although the University of Dar es Salaam offers actuarial courses. A number of graduates with B.Sc. or M.Sc. in actuarial science are taking actuarial exams, mostly the Institute and Faculty exams or the Certified Actuarial Analyst, but it will be some years before fully qualified Tanzanian actuaries become available. Much actuarial work is therefore done outside the country, in Kenya or South Africa or even farther afield.

The challenge then is to bring both the insurance industry and the regulator into a new era of best practices. The project consists of baselining the current practices; assessing international best practice for ORSA, stress testing and risk-based capital; assessing the readiness of the industry to adopt more advanced processes and the actuarial capacity of both the insurers and TIRA itself; providing a model of ORSA, stress testing, risk based capital and other areas, such as actuarial valuation for both life and P&C reserves and risk-based supervision; and finally providing input into proposed changes to the Act, Regulations and draft Guidelines to concretize the proposals. During the project, training for TIRA personnel, as well as a series of stakeholder consultations, are being held to ensure buy-in for what will be a fairly complex process for all concerned.

Current practice, readiness to implement more advanced procedures and actuarial capacity were assessed by a series of in-depth interviews with TIRA staff; a review of their inspection guide and sample inspection reports and similarly in-depth interviews with a selection of life and P&C companies, both domestic and those that are subsidiaries of international companies; and finally a short questionnaire was distributed to all companies to

gauge the extent to which ORSA and enterprise risk management (ERM) are being applied and actuarial resources available.

A review of international practice started off by looking at resources available from international actuarial and insurance bodies, principally the International Actuarial Association (IAA) and the International Association of Insurance Supervisors (IAIS). The IAA is working on a number of standards, and of particular interest is their Risk Book, which is still in development, but provides extensive material on best practices for ORSA, stress testing (in draft) and capital. This was an invaluable resource. The IAIS has established 26 Insurance Core Principles, a number of which speak to these issues and again represent international best practice in relation to insurance supervision and expectations of companies relating to compliance with these norms. The IAIS is also working on International Capital Standards, which technically apply to globally active insurers, but even local insurers would benefit by using these principles, suitably modified, in relation to their measurement and use of capital. IFRS 17 also provides some guidance, and while not strictly a supervisory document, does provide standards for valuation and to some extent internal targets for capital that are consonant with other sources.

Finally, implementation of ORSA, stress testing and risk-based capital in a number of select jurisdictions, one in the EAC, another developing country in Africa and finally Canada, bearing in mind that Canada's implementation of these areas is viewed in an aspirational manner only. I was also able to use knowledge gained from working on risk-based capital, risk-based



Fisherman boats in front of Kivukoni fish market with Port control tower and Skyscrapers Behind, Dar Es Salaam, Tanzania



supervision and other areas in previous assignments in Africa, Asia and the Caribbean.

Insofar as development of actuarial expertise in Tanzania is concerned, we are relying heavily on Actuaries Without Borders (AWB) to provide courses to aspiring actuaries and to provide mentoring for them. Eventually we expect AWB to assist in getting the Actuarial Society of Tanzania, which is an associate member of the IAA, to become a full member, although this is a project for the future.

It is hoped that the process will provide companies with a better understanding of their own business and eliminate or at least reduce some of the systemic failings often seen in developing country insurance industries, such as the motor vehicle price war, the poor reputation of insurance companies and low insurance penetration.

ORSA and stress testing are processes rather than specific standards, so companies will be able to implement them, albeit in a simplified form. In many jurisdictions, a “Financial Condition Report” or similarly named document is required from insurance companies. In my view this is a misnomer as 75 percent of the report is qualitative rather than quantitative, so forms a very good basis for an ORSA report. Companies will be encouraged to follow the format of this report, but in order to ensure that it is not excessively burdensome and does not form another “compliance” questionnaire, TIRA would need to accept such reports in a variety of formats to varying degrees of detail. It should be mostly forward-looking and so should not be overburdened with financial tables, ratios, etc.

Stress testing will form part of ORSA, both for companies that are in satisfactory financial shape—to indicate how much capital is needed in various shock situations—but even more invaluable for companies in an impaired situation, to indicate the most promising pathways back to full financial health.

Insofar as risk-based capital is concerned, a rather formulaic approach (one I’ve dubbed “Solvency 1.5”) will be adopted. This will use a ratio of actual capital to required capital, where required capital is found by taking various percentages of assets, premiums, reserves and other aggregates to assess asset and liability side risk, mismatch risk, operational risk and so on. To the extent possible, modelling will be avoided at this time, although at some point in the future a more model-based approach might be able to be employed; but this is beyond the capacity of most of the industry and TIRA at the moment. Some elements, such as the Maximum Event Retention for P&C, or guarantees and options for life insurance might need to be modelled, either with the reinsurance brokers’ or parent company’s assistance, since neither of these can be reduced to a simple percentage. It will be interesting to see how this plays out.

As far as risk-based supervision is concerned, a Supervisory Attention Index has been designed, combining both probability of failure and impact, using both qualitative and quantitative measures. This will help TIRA to identify companies at risk and to organize their inspection schedule on a more risk-based approach. On-site inspection will change from a financial audit (which is what the auditor does) to a verification of the off-site analysis, an opportunity to meet the key players, including board and management representatives, internal and external auditors, and actuaries and actuarial advisers. Inspection reports will be short, to the point and indicate failures, if any, and agreed remedial actions, rather than the current recitation of financial statistics.

The outcome for TIRA should be a more focused and risk-based approach to supervision, quicker identification of potential problems and less attention to well-run companies with adequate capital buffers. The impact on the industry is harder to gauge. It is hoped that the process will provide companies with a better understanding of their own business and eliminate or at least reduce some of the systemic failings often seen in developing country insurance industries, such as the motor vehicle price war, the poor reputation of insurance companies and low insurance penetration. On its own a more rational regulatory and supervisory system cannot fix all these ills, but it is a necessary condition to ensure a healthier insurance industry, greater confidence of the public, and eventually levels of insurance penetration and an appreciation of the benefits of insurance we see in more developed markets. ■



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# Access to Actuarial Education in the Arab World

By Dana Barhoumeh

The actuarial field is considered rather new to the Middle East and there are few local actuaries. Most actuarial work within the region is undertaken by actuaries from outside, primarily from Europe and South Asia. For instance, I have been working in the actuarial field in the Middle East for over eight years but have yet to meet another native Arabic-speaking female fully qualified actuary. I hope that this is a state of affairs that will change in the near future and that the actuarial field will become more accessible as a career option to those who are local to the region.

One of the main reasons for the shortage of local actuaries has been the historical lack of recognition of the profession. This situation has been gradually transforming over the past 5–10 years due to changes in regulation and a move towards risk-based culture. These recent changes have provided great impetus to the actuarial profession in the region and has resulted in more locals joining the profession.

However, despite the increased demand, growth rates have been restricted, and are likely to continue to be so, due to the limited

availability of actuarial courses at university level, and in particular, those being taught in the local language. Currently, there are only a few countries in the Middle East offering university level actuarial science programs. These are mainly Egypt, Saudi Arabia, United Arab Emirates, and Lebanon. Few of these universities, if any, teach their actuarial programs in Arabic. This is because the actuarial professional exams still have to be taken in English and hence there is little incentive to teach in Arabic. As a result, students who are not proficient in English as a second language are deterred from pursuing actuarial sciences as a profession.

It is interesting to note that worldwide, there are multiple actuarial associations offering qualification examinations in their local languages. These include the China Association of Actuaries (Mandarin), the Institute of Actuaries of Japan (Japanese), the Persatuan Aktuaris Indonesia (Indonesian), the Deutsche Aktuarvereinigung in Germany (German), and the Instituto Brasileiro de Atuária in Brazil (Portuguese). Creating a similarly recognized actuarial association in the Middle East, where exams can be taken in Arabic will go a long way to support the initiatives that are currently being taken by the regional regulators in developing the actuarial profession. This will give a larger number of Arab students the opportunity to study actuarial science and become internationally recognized qualified actuaries. ■

Disclaimer: The views expressed in this article are those of the author and do not necessarily reflect the views of their employers, Society of Actuaries or the International Section.



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# Section Colloquium 2019

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## Welcome to the 2019 IAA Colloquium in Cape Town!

A joint colloquium of various sections of the International Actuarial Association will be held in Cape Town, South Africa, from 2 April to 5 April 2019. Organised and hosted by the Actuarial Society of South Africa, the event will be combined with the annual seminars of the relevant practice areas in South Africa and held at the Cape Town International Conference Centre, Cape Town.

The colloquium is a joint venture with four IAA Sections, namely, International Association of Consulting Actuaries (IACA), Pension Benefits and Social Security Section (PBSS), Health Section (IAAHS) and Life Section (IAALS).

The theme of the colloquium is *The Modern Actuary: Challenge, Influence, Lead*. The programme will include plenary sessions with formal addresses by invited keynote speakers, topical presentations by subject-matter experts, and parallel sessions at which submitted papers will be presented. On each of the days the local practice area will host its annual seminar. Delegates can decide to attend the one-day seminar only, or the whole colloquium, which would further include 2 days of presentations and breakaways. All days are expected to offer a blend of local and international flavour. Social

events are being arranged to supplement the technical experience and to optimise networking opportunities.

### Invitation to Submit Abstracts of Proposed Papers and Presentations

Abstracts of proposed papers and presentations are invited on any topic in the areas covered by the above sections. Wider or cross-disciplinary topics, such as social and economic development issues, enterprise risk management, professionalism and the public interest are also welcome. Content is being sourced in collaboration with the various IAA Sections to ensure relevance.

For additional information regarding the Call for Papers, such as the suggested topics and deadlines, please visit the Call for Papers on the Website.

**The deadline for submission of abstracts is 30 September 2018 and should be submitted online at:**

<https://scatterlings.eventsair.com/PresentationPortal/Account/Login?ReturnUrl=%2FPresentationPortal%2Fiaa-2019%2Fabstract>

Please feel free to address any enquiries or requests for clarification to **Mandy Godfrey** at [mandy@soafrica.com](mailto:mandy@soafrica.com)

## FIND OUT MORE

For more information about the 2019 Colloquium please visit our website

[www.colloquium2019.org.za](http://www.colloquium2019.org.za)

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# GDPR Implications in Actuarial Work

By Petra Wildemann

**G**et your organisation ready! Key takeaways for the implementation of the General Data Protection Regulation (GDPR)! Is your organisation compliant and prepared?

Most articles about GDPR start with remarks about readiness and preparedness for the day when the GDPR terms are in place. However, GDPR is not new; it didn't come about from one day to the next. In 1995, the EU released the Data Protection Directive for the EU countries and Switzerland enacted the Swiss Data Protection Act. The law to protect personal data was based on the already-existing social media and big data regulations. With the increasing use of private information in a variety of social media platforms, it is becoming more and more difficult to know what and where data can be used, whether for business or other purposes, in a changing world.

The right to be removed from data and newsletter lists and the right to be “forgotten” are new elements in the new GDPR regulations. But can we be sure that the data and information have really been removed, and will not be sold from one company to another or used for marketing purposes within automated processes?

The implementation of new laws is always a hot topic for insurers, who need to identify new risks for certain groups as well as the mitigation of existing risks for other groups.

There are already cyber policies in the market. They were introduced when the insurance industry became aware of risks associated with data breaches, in particular cybercrime. Now, the insurance industry will have to think about expanding data breach coverage.

The value chain, which an insurer has in place from product design and pricing up to claims management and forensic analytics, requires the handling of personal data of the insurer's clients. Insurers know a lot about their customers' situations and—depending on the coverages of one or many policies—they even know a lot about their clients' specific patterns of behaviour.

Actuaries handle the calculation of personal data for pricing a portfolio in the life, health, pension and property and casualty (P&C) areas. Although the portfolios normally do not include the names of the clients, they do include the date of birth (DOB), gender, age, postal code and other information that is required to price the product the customer would like to buy for coverages. And here starts the dilemma: It is a common trend that actuaries use their own devices to model the portfolios in order to be faster and more secure than would be the case if large IT systems were used. But this practice entails that actuaries have access to personal data on their own devices, and that is no longer allowed under GDPR.

Consider an example of a common practice with respect to outsourcing actuarial services around the world by using different systems and environments. Most actuarial work is done via Excel sheets. This practice is common in particular when data needs to be exchanged. In order to add other risk factors to a portfolio, external service providers offer valuation and modelling whereby Excel sheets including portfolio data such as DOB, national identity, postal codes and other personal information, are downloaded and sent via email or other transfer applications to the external provider. The insurance client is not aware that his/her data has been sent to another country and has no control over who (and even what) might use the data in the future. In most cases, the portfolio, which includes additional risks after the valuation, will be sent back to the actuaries at the insurance company for additional analysis. Both transfers breach the GDPR terms



should the owner of the data and information not have given consent prior to the data transfer. Every insurer has to be compliant with GDPR and has to make sure that their employers and third-party service providers can work with the GDPR terms.

Cybersecurity and GDPR are essentially one and the same topic—the common denominator is data management. Data is essential, and so is proper management of the data. Otherwise, the insurance industry is blocked from modelling the pricing of their products.

Health care is another topic where data breaches and cyberattacks are high risks. Health data is very attractive to cybercriminals because of the high price it can command in the dark web. In addition, data breaches and cybercrime or cyberattacks in the health care business attract an inordinate amount of media and public attention. And even more: Besides health data, genetic data and biometric data are also recorded for the same people in a number, sometimes a large number, of portfolios. In addition, the transfer of information includes health care providers, insurers, the pharma industry, biotech and digital tech. Often doctors or patients require a second opinion from specialists, who may not be in the same city, country or even continent.

These experts—who are often called cyberdocs—must obtain the patient data, often with all information included, to do their work. Under the GDPR terms, this practice requires detailed, specific consent, as does—in most cases—the exchange of a patient's blood for an examination.

There are steps to take to profile activities in anonymizing data wherever possible, or to take data outside of the scope of GDPR, reduce profiling and refine algorithms in the actuarial and underwriting models. Interestingly, the intervention of humans in this decision-making process is also increasingly being seen, seeming to swim against the prevailing current of automatization.

Ensuring compliance requires a review of common practices to manage data, handle data and obtain consent for any new product plan for renewals. These steps are important for readiness and preparedness of the insurers to be compliant with GDPR. ■



Petra Wildemann, SAV, DAV, IFoA (Affiliate) is a qualified actuary at Arocha & Associates, a senior associate at Swift Academy and the founder and chair of the Swiss Cyber Think Tank. She is based in Zurich, Switzerland and can be reached at [pw@ArochaAndAssociates.ch](mailto:pw@ArochaAndAssociates.ch).

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# IACA and Congress in Berlin

By Cathy Lyn

Over 2,700 actuaries representing 102 nations gathered in Berlin in June for the 31st International Congress of Actuaries (ICA), the largest ever attendance in the history of this event. This Congress was a fabulous opportunity for many German actuaries who were attending their first international event. On this occasion, the International Association of Consulting Actuaries (IACA) celebrated its 50th Anniversary with a party. This launched the IACA Jubilee celebration world tour with the first stop being in Berlin. At this party we welcomed three founding members—John Jolliffe, Edgar Neuberger and Claus-Jürgen Beye—who were at the 1968 Munich meeting when IACA was established. We were delighted to have Klaus Heubeck, IACA's 2010 Max Lander Award winner and

chair of the Berlin Congress organizing committee, open the celebration and present the 2018 IACA Awards.

IACA also held its Biennial General Meeting on June 6 at the Estrel in Berlin, during the week-long ICA. At this meeting Cathy Lyn handed over the chain of office and gavel to Gerd Warnke who succeeds her as chair until 2020.

The IACA welcomed Klaus Krøier (Denmark), Léon Zijlmans (Netherlands), Octavio Rojas (Venezuela), Mike Lombardi (U.S.) and George Symeonidis (Greece) as new committee members serving a four-year term. Committee members Margaret Tiller Sherwood, Ibrahim E. Muhanna and Gautam Kakar rotated off after years of dedicated service to IACA. Sherry Chan succeeds Chintan Gandhi on the committee as chair of the Younger Members Group Sub-Committee.

Brent Walker, chair of our Awards Sub-Committee announced Daisy McFarlane Coke (Jamaica) as the winner of our 2018 Max Lander Award and Sherry Chan as the winner of our 2018 Geoffrey Heywood Award. Daisy, a new octogenarian, could not travel to Berlin so her Ferrari trophy will be presented in Jamaica when the Jubilee celebration world tour makes a stop in Kingston. We were delighted to welcome Sherry and her parents in Berlin to receive her hour glass trophy.



Pictured L-R: Edgar Neuberger, Claus-Jürgen Beye and John Jolliffe, three founding members of IACA. Copyright © Michael Fahrig, ICA 2018



Pictured L-R: Cathy Lyn and Mike Lombardi. Copyright © Michael Fahrig, ICA 2018

IACA made a substantial investment in the Virtual ICA and was involved in organizing presentations as well as the Opportunity in Diversity mini-conference. We would like to highlight two important IACA semi-plenary presentations for you to view, digest and debate. The first is “Digital Disruption: The Impact of information Management on New Products and Business Models for Society” presented by Tom Jenkins our specially invited guest speaker to Congress. Tom is chairman of the board of Open Text, a member of the board of Manulife and Chancellor of the University of Waterloo among many other positions and presented a high powered talk on Digital Disruption on Tuesday, June 5. Tom has been active for more than 30 years in innovation and economic development in both the private and public sectors in Canada. This is a must see presentation for the whole actuarial profession. The second is “Managing Environmental, Social and Governance (ESG) Factor Integration,” an interactive panel discussion with well-known international personalities Randy Bauslaugh, Chris Daykin and Hendrik Gartz.

Opportunity in Diversity, a mini-conference held alongside the Congress, proved a popular event and involved a number of

IACA members. This topic has intrinsic appeal. We conducted a workshop to explore how factors in the context of diversity can move the actuarial profession into an expansionary mode. Cathy Lyn, chair of IACA was leader of the Diversity Organizing Team. Our two key speakers were Lesley Traverso from Australia, a specialist actuarial recruiter with deep international experience and Marjorie Ngwenya from South Africa, the first president of the Institute and Faculty of Actuaries resident outside the U.K. We would like to thank our sponsors Zurich, Association of Consulting Actuaries (U.K.), The Caribbean Actuarial Association, and International Association of Black Actuaries for their generosity in supporting equipment, refreshments, online broadcasting, etc.

These sessions are available on VICA which contains a wealth of material for CPD and thought leadership purposes. We encourage you to view at <http://ica2018.com/program/virtual-ica/>.

Another highlight was the SOA International Section social gathering at the Brauhaus. We were happy to promote international diversity here by bringing together Brian Spence (Ireland), Tim Vieyra (South Africa), Monique McBean (USA), Britta Hay (Jamaica), and Randy Bauslaugh (Canada). Many thanks to our hosts.

IACA now has a much higher international profile with the German leadership. We look forward to working with them to keep VICA alive and exciting for the 100,000 actuaries in the world.

These are just some highlights. There is lots more to tell, please stay tuned on news from the IACA! ■



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 [lcathy88@yahoo.co.uk](mailto:lcathy88@yahoo.co.uk).



## **Caribbean Actuarial Association Annual Conference 2018**

### ***Running the Risk***

**November 28<sup>th</sup>-30<sup>th</sup> 2018 – Jamaica Pegasus Hotel, Kingston, Jamaica**

The CAA's Annual Conference brings together leading actuaries and other professionals in the financial services and other industries through scientific presentations and thought-provoking discussions among professionals from across the globe. Regional and global relationships are made and strengthened every year at our conferences.

An exciting programme is planned with seasoned professionals addressing issues of concern, not just for actuaries, but for everyone. Climate change, increasing digitalisation, demographic pattern shifts are among the risks which significantly affect our society. Actuaries need to "Run the Risk" by exploring opportunities in non-traditional areas and finding new ways to approach more traditional concerns.

The Conference will start off with a Professionalism Course facilitated with the assistance of the Institute and Faculty of Actuaries. The Advisory Council Meeting, our biannual interchange with other professional bodies and the region's regulators, will also take place within the Conference.

This year's conference will take place in Jamaica's capital, Kingston, in the heart of the business district and is being designed to strengthen the relationship between actuaries and the business community in general. The agenda will have multiple streams with topics of concern to actuaries and non-actuaries alike, covering traditional areas such as insurance and pensions as well as topics of concern to all.

With the old part of Kingston almost 400 years old, Kingston is the largest city in the English-speaking Caribbean and offers those attending the Conference the opportunity to see another side of Jamaica – the legislative, economic and social capital. Several multinational conglomerates and financial institutions are headquartered in and around both city centres, downtown Kingston and New Kingston. Of course, Kingstonians too like to let their hair down and have every opportunity to do so in the city's wide array of restaurants, clubs and other gathering places. As always, we have social events planned for each night of the Conference.

We look forward to seeing you this November in Kingston.

Please visit our website at [www.caa.com.bb](http://www.caa.com.bb) for updates or contact us at [caa.secretariat@gmail.com](mailto:caa.secretariat@gmail.com)

**#CAA2018JA**

**#RunningTheRisk**



# Actuarial Association of Sri Lanka Admitted as Full Member of the IAA

By Devindi Samaranayake

Sri Lanka is also fondly known as the “the pearl of the Indian Ocean” because of its natural beauty. Its documented history spans 3,000 years. Diversity of the country’s landscapes ranges from rain forests and arid plains to highlands and sandy beaches. Moreover, this article outlines how “the pearl of the Indian Ocean” is shining now with achievement of actuaries.

The Actuarial Association of Sri Lanka (AASL) was formed in 2008. It was admitted as the 73rd full member association (FMA) of the International Actuarial Association (IAA) with effect from Jan. 15, 2018. This is a great achievement for AASL members and aids steady development of the actuarial profession within Sri Lanka. We are thankful to the present and past council members, and members who worked actively and tirelessly to enable AASL to obtain FMA status. Support given by the Advice & Assistance Committee of the IAA should also be highlighted.

Admission as an FMA of the IAA follows a rigorous process that includes a review of the AASL education program, code of professional conduct, formal disciplinary process, and formal process for the adoption of standards of practice (where applicable). AASL does not have an education program of its own,

AASL hopes to capitalize on the recognition and prestige of being an FMA of the IAA to launch several initiatives to advance the profession locally.

and members follow examinations by other actuarial organizations, mostly the Institute and Faculty of Actuaries (IFOA) and Society of Actuaries (SOA). All AASL credentials are directly linked to credentials acquired through listed organizations that already comply with the IAA Education Guidelines and Syllabus. In our journey toward FMA status, AASL adopted a code of professional conduct that is consistent with IFOA and SOA professional conduct. A formal disciplinary process was structured around a disciplinary committee comprised of six independent actuaries who are recognized as honorary members of AASL.

As an FMA of the IAA, AASL has voting rights and may appoint a delegate to represent AASL at IAA Council meetings. AASL members are now eligible to take part in IAA committees and contribute to the development of the actuarial profession globally. Moreover, members have access to the e-library including all IAA newsletters, news releases, committee papers and other publications.

AASL hopes to capitalize on the recognition and prestige of being an FMA of the IAA to launch several initiatives to advance the profession locally. Actuarial resources are scarce in Sri Lanka. Most are currently employed in the insurance industry. Immigration of qualified actuaries to developed countries has also been a factor in the scarcity of resources. AASL launched several projects to support actuarial education for its members, including examination preparation support through tutorial sessions with help from Actuaries Without Borders (AWB), a discount program for study materials from ACTEX Publications, and a library providing study and other educational materials.

AASL is also keen to promote the actuarial profession within other industries and provide opportunities for our members to engage in nontraditional areas of practice. We are also looking to collaborate with other actuarial associations in the region, to provide learning and development opportunities for our members.

At the end of this challenging journey AASL members are now enjoying the rewards of this global recognition, while helping shape the future of the international actuarial profession. ■



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

By Jules Gribble and Milanthe Sarukkali

This is the third in a series of articles. Our objective is to highlight professionalism issues and make them directly relevant through (hypothetical) case studies. These issues are internationally relevant. In our first article (*International News*, January 2018), we discussed what professionalism is, and its focus. In the second article (*International News*, May 2018), we discussed professional advice. Here, we provide an overview of aspects of professionalism, and then move on to case studies.

We reiterate the crucial point that professionalism focuses on “how” we, as actuaries, conduct our actuarial activities, not the technical “what” of the outcomes.

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 license” they need improve as “actuarial drivers.” These skills include both technical (actuarial mathematics and models, etc.) and the wider and more interactive business skills. This second set of skills can be categorised, sometimes almost disparagingly, as “softer” skills. We suggest this categorisation is inappropriate and limiting. In a rapidly changing environment, where the pace of change is not slowing, actuaries need to be proactive, flexible and forward-looking.

Technical skills are a necessary condition for success. However, they are not sufficient. Professional behaviour 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 delivering good value to its clients. In this environment, ongoing professional education is at least as important as initial professional education.



These articles are based on a presentation made by the authors at the International Actuarial Association (IAA) Asia Subcommittee Regional Seminar held in Colombo, Sri Lanka, on July 14, 2017.

## PROFESSIONALISM IS EVERYWHERE

We use the term “professionalism” in a broad sense. Professional skills need to be tailored to an individual actuary’s situation. However, the mix of skills changes as situations change; and as actuaries move through their careers, they need to continue to develop these skills. Some, like integrity and upholding public interest, are almost universally relevant. Others may be more tailored and nuanced. In some instances, such as taking a senior management career path, an actuary’s professionalism may become more important than their technical skills.

Professionalism 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 who we intuitively feel are good and trustworthy actuaries, with high standards and integrity, who clearly deliver value and insight to their clients, supporting them making better and more informed decisions. We also all know of examples to the contrary. A challenge is aspiring to be in the first group, while addressing our weaknesses when we stray toward the second group.

Consider the following table of topics to consider when delivering professional actuarial services. This highlights the ever-present need for professional behaviour.

Aspect	Technical	Professional
Do professional work with integrity, skill and care	✓	✓
Uphold public interest, and the reputation of profession		✓
Cooperate with others, but understand the role and need for confidentiality		✓
Recognise the need for competency and value of experience. When appropriate seek help and mentoring from professional colleagues	✓	✓
Conform to standards, statutory, professional and ethical	✓	✓
Take responsibility, provide clear and timely communication of results and their context (recognising uncertainty) to clients in language they understand		✓
Identify who your client is, their needs and their capacity. For professional relationships, trust and respect are key ingredients		✓
Manage conflicts of interest, both real and perceived		✓
When taking over services from another professional, get a clear understanding of the circumstances and prior work and concerns. If you are having service being taken over, cooperate fully with the new person.		✓
Compensation arrangements should be transparent and clearly disclosed. They should not lead to, or be perceived to lead to, biased advice.		✓
Be accountable for your professional actions and advice. Professional standards are there for a good reason		✓

### THREE “GOLDEN” RULES

A short summary that provides some guidance on how to avoid or minimize the risk of professionalism issues coming up is to follow these three golden rules:

- **Know the client.** This includes thing like clarifying the scope and purpose of the task, understanding the business context of the task, and communicating with clients in their language.

- **Know your limitations.** This includes knowing what you can and can NOT do, where you may seek support, being clear with your limitations and reliances, and recognising public interest.
- **Know the law.** This includes (at a minimum) knowing your obligations and licensing requirements, including supervisory requirements, and applying all applicable professional guidelines.

### CASE STUDY 2: CREDIBLE EXPERIENCE

The second case study we gave at the IAA regional seminar was the situation faced by Mary, the chief actuary at Good Life Insurance Company in Asia. She had recommended best estimate assumptions to be used in valuation and pricing based on results of her most recent experience study. The recommendations reflected both company-specific and industry experience, due to the lack of credible experience within the company. Mary was faced with resistance from senior management who felt the mortality assumptions should be less severe than Mary proposed, citing their experience in the industry, although Mary’s analysis suggested otherwise. An added complication for Mary is that she has also been asked to reprice an existing product more competitively. If she revised her mortality assumptions to the levels suggested by management, that would help that process.

Some points to consider include the following, with some reflecting audience feedback when the case study was presented at the IAA seminar.

- Mary and senior management need to be clear about their respective roles—in particular, who is providing expert professional advice and who is making the business decisions (and the consequences of senior management not accepting expert advice).
- Pricing and repricing is a broader issue than only mortality assumptions. This work should put the changes in mortality into context with other possible changes, including expenses, lapses and investment return. Sensitivities to changes should also be considered.
- Mary should ensure that her recommendations can be justified and defended. Her workings, data and methodologies should be checked. This may be a place for professional peer review.
- Mary should consider re-evaluating all the information available to her and be sure that she has considered all aspects of the problem, before disregarding the suggestion

of the senior management. Perhaps they have additional data to provide.

- How Mary communicates her reasoning and results would greatly impact the acceptance she receives from the senior management team.
- With regard to repricing the existing product, Mary needs to communicate to senior management which assumptions are locked-in and which are not. She should also be clear that the premiums she puts forward are recommendations, and it is management's role to make the final decision, subject to legal and regulatory requirements. Mary's recommendations inform the decision of management regarding expected profit margins and risks undertaken.

Professional skills need to be tailored to an individual actuary's situation. However, the mix of skills changes as situations change; and as actuaries move through their careers, they need to continue to develop these skills.

### CASE STUDY 3: ARE YOU QUALIFIED?

Sarah recently obtained her fellowship. She has just returned home after studying at a foreign university and then working for a year as an actuarial assistant in the valuation team at a global insurance company that focuses primarily on health insurance. Local insurance companies have always found it difficult to recruit qualified actuaries. Being one of the very few qualified actuaries in the country, Sarah has secured a job as the head of the actuarial team at a reputed local insurance company.

The CEO spoke to Sarah on her first day and indicated that there is an urgent need to develop a universal life product with a guaranteed return to take advantage of current market conditions. The CEO further said the company is extremely pleased that Sarah would be able to certify their products as being profitable and fair by policyholders and sign off on all documentation required by the local regulator in order to launch new products, and so they would no longer have to rely on external consultants.

Sarah has no exposure to universal life products, or long-term product development and pricing. However, she is concerned

that it would not be good for her career prospects if she admits that she is unable to complete her first assignment. After all, she is more qualified than anyone else in her team, although they have been working in the local insurance market for a long time.

What should Sarah do? Should she develop the products and sign off on regulatory filings? Should she admit that she does not have the necessary experience to certify that the product is sound, workable and fair?

Some points to consider include the following, with some reflecting audience feedback when the case study was presented at the IAA seminar.

- Sarah is in a difficult position. It appears expectations are not aligned and she does not have the skills and experience to professionally complete the task on her own. She should not pretend to possess knowledge and skills she does not have.
- She needs to realign management expectations to understand that being "qualified" goes beyond possessing a designation, and requires both technical skills and also having the necessary experience and relevant knowledge beyond the exam curriculum.
- In the short term she needs to find proactive solutions and consider how to get access to experience. This may, for example, involve finding mentors, continuing to engage external consultants for peer review, and developing her skills through her continuing professional education obligations.
- She can make it clear she wants to learn and develop these skills, so the company will have more resources in-house going forward. She also needs to get the backing of her team, who has more experience than her working with long-term products, although she is more qualified on paper compared to the rest of the team.
- Experienced actuaries face such situations all the time, when called on to work on new projects they have little or no direct expertise with. It may then be appropriate to collaborate with others who have complementary skills and experience to provide peer review and professional support.

We conclude with some observations:

- This case study shows the importance of being aware of professional obligations and taking steps to avoid getting into difficult situations in the first place. The CEO's comments suggest that Sarah's key problem is that she has

allowed unreasonable expectations to form. The situation would be much less uncomfortable and more manageable had realistic expectations been set initially. Prevention is better than cure (and cures can be painful to all involved if they become required).

- Part of being a member of a profession is having the support of that profession. Sarah should consider getting support from her professional actuarial association(s). Professional guidance can give valuable support to her in discussions with her management. There may be a process to provide experienced advice. Also, there may be a supervisory aspect as the supervisor may have experience requirements to meet. Individual actuaries are not alone as they have their profession to draw on for support.
- We are not suggesting actuaries should not take on new projects. This develops and transfers their skills to new domains, is often personally satisfying, and enhances the profession. We are suggesting that when they take on new projects they do it in a professional way and minimize the risks involved (both to themselves and to their clients). Transparency and disclosure may be important in this context. ■

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Society of Actuaries or the International Section. The content of this article is for general interest. No consideration of specific or personal circumstances has been made or implied. No action should be taken on the basis of this article without seeking specific advice.



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# Interview with the Hong Kong Insurance Authority (IA)

By Simon Lam and Rachel Chu

*Editor's Note: This article originally appeared in the Actuarial Society of Hong Kong's newsletter in April 2018, and has been lightly edited for publication in International News. It is reprinted here with permission.*

In June 2017, the Insurance Authority (IA) took over the regulatory functions of the then Office of the Commissioner of Insurance, which was a government department. It is expected that the IA will take over the regulation of insurance intermediaries from the three Self-Regulatory Organisations (SROs), and implement a new statutory regulatory and licensing regime within two years thereafter.

The ASHK is honoured to have Dr. Moses Mo Chi Cheng (MC), the Chairperson of IA, accept our interview to share some thoughts on the road ahead for the Insurance Authority.

**ASHK: With the establishment of the Insurance Authority (IA), how do you foresee the changes in the industry?**

MC: As you know, the insurance industry was self-regulated in the past. However, there is a worldwide trend to have an independent regulatory authority, like in most of the developed countries. Even in Hong Kong, we already have some independent regulatory authorities, like MPFA and SFC. Therefore, it's time for the insurance industry to take steps to move forward.

The establishment of IA should be beneficial to the industry:

1. IA is independent of the government. Its operation could be more flexible than a government department.
2. As IA is not a government department, it can work closely with the industry to explore different opportunities. IA will also provide support for the industry's continuous development, hence, there must be more potential for the industry to do even better.
3. More importantly, IA will strive to increase the awareness of insurance in the community, especially the full spectrum of functional positions and career prospects in different functions. Say actuarial, going forward, there will be many



From left to right: Mr. Simon Lam, President, the Actuarial Society of Hong Kong (ASHK); Ms. Rachel Chu, Chief Editor, ASHK Newsletter, Membership & Communications Committee of ASHK; Dr. Moses Cheng, Chairperson, the Insurance Authority (IA).

projects and more resources in this area will be required. Not only actuarial, but also the regulatory body, claim, underwriting and risk assessment functions are also in need of continuous supply of talents.

However, we observed that there is a lack of opportunities for young people to understand the career path of various insurance specialties. We hope to attract more talents, especially the youth, to join the insurance profession.

IA will cooperate with different institutions and universities in order to provide suitable training. Recently, Hang Seng Management College (HSMC) has started a new Bachelor programme in Actuarial Studies and Insurance. Compared to the existing insurance programmes which are more academic and theoretical, this programme emphasises more on the application to the industry.

This is one of the examples that IA as an independent authority could introduce more social resources into the industry. This has been one of the directions after the establishment of IA.

4. Another goal of IA is to develop a healthy insurance market. It promotes the importance of insurance and enhances the public knowledge about insurance products and the industry through the public education. Instead of relying on the insurance salespeople, we want to enhance the public's understanding of their insurance needs.

**ASHK: Are there any plans in achieving these goals?**

MC: The government has launched a series of videos<sup>1</sup> to promote the career prospects in the industry. Similar promotional

activities will be maintained. Moreover, we will communicate with the Education Bureau to discuss the possibility of including basic knowledge about insurance and risk management in the syllabus.

**ASHK: Could you kindly share with us the future plans of IA? And how does IA help the industry to become the insurance hub in Asia?**

MC: Currently, we have several projects going on:

1. Risk-based Capital Regime (RBC)

In September 2017, I attended a roundtable which is jointly organised by the OECD, U.S. National Association of Insurance Commissioners (NAIC) and the Office of Insurance Commission (OIC) Thailand to discuss issues that will lead to the sound development of insurance and private pensions markets in Asia. In the meeting, I strongly felt that the key stakeholders in Asia have been closely observing Hong Kong, especially on the development of the RBC. I'm not talking about the RBC framework, which in fact has been recognised globally. More importantly Hong Kong has gained the experience from various countries such as Europe, U.S., Britain and Australia. From these experiences, we can develop detailed rules which are suitable for Hong Kong or even the Asia region. As a result, Hong Kong is able to take on the leadership role for the Asia Pacific Region. This will be the first step to become a regional hub.

2. The second one is the coming launch of a statutory licensing regime for insurance intermediaries. The regional counterparts will also keep an eye on its development.

3. The third one is the application and sustainable development of Insurtech. The IA will work to promote Hong Kong as an Insurtech hub in Asia. IA has already introduced new initiatives to facilitate the development and application of Insurtech in Hong Kong. A crucial one is that the IA will line up the insurance industry and the Fintech community for more collaboration. We will work together to enhance communication with market participants in order to develop Insurtech which can be applied to various areas of the industry, e.g., sales, claim management or even for the application of the RBC framework.

4. The fourth one is to attract and expand the talent pool. We are not targeting to provide manpower for only Hong Kong, but also for the whole region. It is noted that professionals and skilled personnel in various sectors of the insurance industry are highly demanded in Southeast Asia. We hope to attract new blood, especially the young people and hope to enhance the professional competency and knowledge of the sector in order to fulfil the needs of the South East Asia region.

**ASHK: Since Insurtech is a new trend for the industry, would you kindly share with us how IA helps the industry to catch up with this trend?**

MC: In September 2017, IA announced several new initiatives to promote the sustainable development and the application of new technologies in the insurance industry.

1. Insurtech Sandbox

It is applicable to existing authorised insurers. Under this initiative, IA will provide some flexibility in the supervisory requirements in order to help authorised insurers to develop new Insurtech and other technology applications say, for sales growth and for claim handling, etc.

2. Fast Track

It provides a dedicated queue for new authorisation applications from applicants which own and operate solely digital distribution. Under this pilot scheme, the application process can be expedited and streamlined to speed up the launch of any innovative opportunity.

3. Insurtech Facilitation Team

IA has established a team to enhance communication with the industry regarding the development and application of Insurtech. It provides a platform for the exchange of ideas related to Insurtech initiatives among key stakeholders.

4. Working Group on Embracing Fintech in Hong Kong under Future Task Force

The taskforce comprises experts and professionals from the insurance industry and the academia. It is a sharing platform for the industry to explore the future and to draw up recommendations. In a recent meeting, we shared the challenges ahead of us and the new achievements by the industry.

**ASHK: In the past years, Hong Kong Monetary Authority (HKMA) has imposed more requirements on banks in selling insurance products especially for unit linked products. In the future, will IA have any plan to coordinate with HKMA in order to help bancassurance growth?**

MC: IA is dedicated to work closely and interactively with the financial services supervisory authorities of Hong Kong. We have close communication and will continue to set up communication channels regarding the approval process, supervisory issue, notification system, etc.

In response to the rapid development of the market, IA will keep open communication lines with other supervisory authorities and then provide updates to the public. For instance, on matters related to the supervisory of insurance intermediaries, IA has



communicated with different supervisory authorities in order to avoid any regulatory arbitrage.

Regarding the supervision of MPF intermediaries, under the Mandatory Provident Fund Schemes Ordinance (MPFSO), IA has been assigned as the frontline regulator responsible for the supervision and the investigation of registered MPF intermediaries whose core business is in the insurance sector. Under this enforcement, MPFA and IA require support from each other and we expect there will be more collaboration in the future.

**ASHK: Recently, there are numerous insurance companies acquired by mainland investors. Could you kindly share with us on how to promote the Hong Kong insurance industry?**

MC: Hong Kong adopts an open market policy; we welcome everyone to invest in Hong Kong's insurance business, whether through merger, acquisition or applying for a new insurance company licence. We want to attract more international insurers to set up their regional or even global headquarters in Hong Kong.

Reinsurance market is one of the areas that we are working on. We strive for the same regulatory requirements for Hong Kong reinsurers vis-à-vis mainland reinsurers. International insurers based in Hong Kong can then enjoy similar benefits as other mainland insurers do when they want to enter the mainland market.

IA is working closely with the China Insurance Regulatory Commission (CIRC) on more cross border regulation co-operation.

In May 2017, IA and CIRC signed the "Equivalence Assessment Framework Agreement on Solvency Regulatory Regime" - an agreement which allows IA to work together with the CIRC to strive for equivalent capital requirements. The objective of this agreement is to achieve mutual equivalence recognition of the solvency regulatory regimes and provide regulatory convenience over supervision of the insurance industry on both sides to avoid regulatory overlap. It is expected that the regime will promote the development of the insurance industry in both Hong Kong and China and encourage cross-border business.

In the coming future, IA will continue to strive for more reinsurance opportunities.

**ASHK: Would you mind giving some advice to our readers?**

MC: The most important is lifelong learning. We should keep enhancing our skills and professional knowledge, so as to further strengthen the professional image of Hong Kong. Our long term target is not only to focus on sales and profit, but also the training of professional talent.

Besides, buying an insurance policy is a long term commitment. A relationship of trust among policyholders and insurance

agents / insurance companies is very pivotal. Business growth aside, we should attach equal importance to integrity and professionalism. As the insurance industry becomes credible and trustworthy to the community, the insurance business will also become more profitable and successful in the long run. However, it cannot be done by one individual, rather it would require the cooperation of the whole community.

Last but not least, we should bear in mind the following points for developing a lifelong career:

1. Interest

If you do not like your job, you will not do it well. It will be an enjoyment if the job matches your interest. Like me, I welcome every new day as there will be new opportunities to learn more and to serve more.

2. Ambition to strive for the best

In this highly competitive society, we must keep improving and educating ourselves. To learn, unlearn and relearn is very important. Lifelong learning is a must.

3. Respect yourself and respect the others

If you do not respect others, you will never succeed. If you do not respect yourself, you will never have the confidence to serve others. It is essential to put the client's interest ahead of the company's and put the company's interest ahead of the individual's. Obsession with getting your own advantage and not working on the benefit of clients are not the right attitudes. In this generation, success is measured by the amount of pay check. But pay check does not reflect whether you are successful or whether you are being respected. My experience tells me that when you are being respected, you must be serving your clients very well and this will in turn earn you a satisfying and financially rewarding career. ■



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**ENDNOTE**

1 <https://www.instalent.org.hk/en/content/insurance-talents>

# Interview with the Society of Actuaries of Indonesia / Persatuan Aktuaris Indonesia (PAI)

By Christian Bettels

*Editor's Note: This article originally appeared in the Actuarial Society of Hong Kong's newsletter in April 2018, and has been lightly edited for publication in International News. It is reprinted here with permission.*

**T**he ASHK International Committee is established with the objective to keep our ASHK members informed of significant developments in the actuarial profession in Asia through liaison with other professional actuarial bodies in Asia, in particular regulatory and policy changes, market news and career opportunities. We are bringing to you articles about our connections with various Asia actuarial societies as the Committee connects to each of them. We conducted a phone interview with Mr. Fauzi Arfan (FA), President of the Society of Actuaries of Indonesia or Persatuan Aktuaris Indonesia to enhance the understanding of the PAI.

The PAI was founded in 1964 with 25 actuaries. Its membership is limited to Indonesians only. As of December 2017 there are 255 fellows, 259 associates and 1925 students. The PAI has been a full member of the IAA since 2006. The Society's mission is to become a professional body and gain international recognition. An Executive Director is being recruited and is expected to come on board by March 2018.

**ASHK: What are the major recent involvements of the actuarial society in the insurance industry?**

FA: There are many changes in the regulations issued related to actuarial practice. The actuarial society provides recommendations to Indonesia's financial services authority [Otoritas Jasa Keuangan (OJK)] regarding, for example, pricing and reserving regulations. As the majority of insurance companies is in the



Mr. Fauzi Arfan, President of the Society of Actuaries of Indonesia (PAI)

general insurance sector (82 general insurance insurers and 56 life insurers), more improvements are needed on the casualty side and the society is currently engaged in helping in this. It is a major challenge to find qualified general insurance actuaries to fulfill the high demand in this area as most qualified actuaries work in life companies.

The industry is still digesting regulations and guidance issued by the government. Example for general insurance products include the standardised premium for motor insurance and gross premium valuation.

**ASHK: What is the latest development in the insurance industry? How do you see the future development and growth opportunities in the market?**

FA: A major focus is and will be to enter the digital channels due to the change in behaviour of the new generation. Also the enhancement of Enterprise Risk Management (ERM) is an ongoing hot topic.

The Canada government and University of Waterloo support actuaries in Indonesia through the Risk Management, Economical Sustainability, and Actuarial Science Development in Indonesia (READI) project aiming to increase the number and

quality of Indonesian actuarial-science graduates to address the country's growing demand for actuaries.

**ASHK: Are there any current “hot topics” for the actuaries in Indonesia?**

FA: IFRS17 is a hot topic for actuaries in Indonesia, even though the implementation will be in January 2022. The PAI has started to set up a task force team.

**ASHK: Which are the dominating practice areas of Indonesian actuaries?**

FA: While most qualified actuaries work in life companies there are actually more general insurance companies in the market, especially the casualty area must be improved.

**ASHK: What is the mix of local and foreign players in the market? / Could you give the top 5 life and top 5 general insurance players by e.g., market share by premium or other measure?**

FA: Top 5 life insurers: Prudential / Axa Mandiri / AIA / Allianz / Inhealth Indonesia (owned by Bank Mandiri).

Top 5 general insurers: Major players are local: Jasindo, Asuransi Sinar Mas, Asuransi Astra Buana, Tugu Pratama dan ACA.

Top 5 life insurers
Prudential
Axa Mandiri
AIA
Allianz
Inhealth Indonesia (owned by Bank Mandiri)

Top 5 general insurers
Jasindo
Asuransi Sinar Mas
Asuransi Astra Buana
Tugu Pratama dan ACA
(major players are local)

**ASHK: Where would you see areas of future collaboration with the ASHK?**

FA: There are a lot of topics for further engagements such as the implementation of IFRS17 in Asian countries. Although it's still in the early stages and implementation in Indonesia is likely to take place only in 2022, MNCs and JVs have already started providing training to their staff. The PAI has an IFRS task force dedicated to working closely with the local accounting profession. Also, referring to the above mentioned challenge in the development of general insurance, especially casualty area, the Indonesian Actuarial Society can certainly benefit from connection with the ASHK and its committees.

**ASHK: Does your society have a homepage / other social media presence for actuaries interested to keep up to date with your society and recent developments?**

FA: Yes (the link: <http://www.aktuaris.or.id>). The homepage is not yet in English. ■

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# SOA/CAS Seminar in Bogota Gets Record-Breaking Attendance

By Carlos Arocha

The Latin America Committee (LAC) was formed in 2016 to implement the SOA's strategic objectives in the region. While the Latin American region includes significant emerging economies and financial services activities, it has a relatively small number of actuaries. Local associations vary in scope and availability of resources. This gives the SOA a unique "greenfield" opportunity. To focus its efforts, the LAC is initially targeting four countries—Argentina, Brazil, Chile, and Colombia.

The objectives of the Latin America Strategy are:

- Increase awareness of the SOA,
- Enhance skills of actuaries and the actuarial profession,
- Enhance the reputation and visibility of the profession, and
- Enhance the influence and effectiveness of actuaries in the region.

None of these objectives can be achieved without close collaboration with local actuarial associations. These relationships

and collaborations are vital to building the SOA's credibility and presence in Latin America.

One recent collaboration was the organization of a successful international actuarial seminar in Bogota, Colombia (May 8–11, 2018).

The seminar was sponsored by the SOA, the Casualty Actuarial Society (CAS) and the Colombian Actuarial Association. The event was jointly coordinated by the SOA office and the Colombian's National Insurance Institute (known for its Spanish acronym as INS.) INS is an organization funded by the Colombian Federation of Insurers (FASECOLDA).

SOA international director, Ann Henstrand, and Sofi Garcia, SOA international projects specialist had originally expected 30–40 participants altogether. A few days before the arrival of the SOA delegation to Bogota, we learned that 82 people had enrolled! Moreover, delegates were not only Colombians: actuaries from Peru, Bolivia, Ecuador, Honduras, and Panama attended the seminar as well!

The Colombian Association of Actuaries had originally suggested calling the event "international seminar," driven by the fact that the speakers were members of the SOA and the CAS who did not practice in Colombia, rather than by the expected "purely" Colombian audience. At the end, calling the seminar "international" was indeed appropriate for the audience as well.

The seminar covered selected material from the preliminary SOA/CAS exams, to a large extent. At the same time, coverage of Solvency II and IFRS 17 regulation was embedded in the program. The bridge between theoretical content and best-practice



was an underlying theme. For instance, the Lee-Carter model for mortality projections was presented, complemented by a discussion of the treatment of longevity risk under the Standard Formula of the Solvency II Directive.

One of the salient features of the seminar was the faculty: seven actuaries from either SOA or CAS from several countries and professional backgrounds, all able to present in fluent Spanish. SOA presenters included Luis Maldonado, Alan Ramirez, and Ed Robbins. In a nine-module program, most aspects of technical and professional practice were presented. The program seemed ambitious, but speakers focused on the most relevant aspects of current actuarial practice in pricing, reserving, reinsurance and capital modeling.

The seminar began with a module on the role of actuaries in financial security systems, and a review of the curriculum of the International Actuarial Association. This was followed by a discussion of qualifications to render statements of actuarial opinions in different countries.

Modules 2–4 covered the foundations of long-term actuarial mathematics, life insurance products, and mortality and longevity risk models. Illustrations in the R programming environment rounded up the discussions and allowed seminar participants to better grasp theoretical concepts. For instance, we defined an arbitrary risk-based solvency capital requirement and calculated the amount needed to support an illustrative life portfolio subject to mortality and market risks.



Modules 5–8 covered short-term actuarial mathematics, risk models, pricing and reserving of general insurance covers, and reinsurance. Pricing using generalized linear models (GLMs) were also included in the syllabus, as was bonus-malus pricing, a system that adjusts the premium paid by a policyholder according to their individual claim history. In addition, several reserving techniques were presented.

Finally, module 9 was a capstone module on asset-liability management, capital management, and Solvency II.

On the second evening, a dinner was hosted by the INS in the beautiful building of the Bankers Club of Colombia. Presenters had the opportunity to mingle with the large group of attendees, and to learn about the need for actuarial training in various countries.

The international seminar was a milestone in the development plan of the LAC. Owing to the success of the seminar it is foreseen that future events will be organized in the region.

I would like to take this opportunity to thank José Fernando Zarta, Miguel Martínez Briceno, and their INS staff for their help provided for the successful organization of the course in Bogota. I owe additional thanks to Sofi García of the SOA office, for her valuable assistance in coordinating the seminar. ■



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# The University of Buenos Aires and the Society of Actuaries: Becoming partners to develop actuarial academic excellence in Latin America

By Eduardo Melinsky and Javier Campelo

## A BRIEF HISTORY OF THE ACTUARIAL SCIENCES PROGRAM AT UBA AND ITS CURRICULA

The Actuarial Sciences program started in 1927 at the Facultad de Ciencias Económicas of the Universidad de Buenos Aires (FCE-UBA). It is officially recognized by the International Actuarial Association (IAA—[www.actuaries.org.ar](http://www.actuaries.org.ar)) as fulfilling its educational actuarial syllabus.

The institutions that offer actuarial science programs in Argentina are the Universidad de Buenos Aires (UBA) and the Universidad del Salvador (USAL), but more than 90 percent of the actuaries in our country are graduated from the UBA.

In order to work in the actuarial profession in Argentina, it is mandatory to be registered at a Professional Association in Economic Sciences (Consejo Profesional de Ciencias Económicas—CPCE) of the corresponding Argentinean province where the practice is being developed. The CPCE of the City of Buenos Aires (CPCECABA—[www.consejo.org.ar](http://www.consejo.org.ar)) has been a full member of the IAA since 1998.

The FCE-UBA is one of the finest actuarial programs in Latin America. Actuaries who have graduated from this university are employed by insurance and reinsurance companies, banks and other financial institutions, based in many countries within the region. The actuarial program at FCE-UBA is equivalent to a master's in actuarial sciences in Europe, according to the current European educational standards.

The program includes a large amount of topics and content related to mathematics and statistics, which are to be applied to economics and business. The 1997 Study Plan, for the first time, divided the Actuarial Sciences program into two career paths: Economics and Business. Depending on the program's career path, the students deepen their understanding of Economics and Econometrics (Economics career path); or Business Management (Business career path).

The curriculum of the actuarial program at FCE-UBA for both career paths requires between five and six years of study. The first half of the curriculum relates to the “General Track” with the same courses for all of the professions that can be studied at FCE-UBA, and then each individual profession has a “Professional Track.”

Regarding the actuarial profession, the Professional Track includes, for both career paths, the following subjects: Actuarial



Statistics; Numerical Analysis; Actuarial Biometrics; Actuarial Theory of General Insurance; Actuarial Theory of Life Insurance; Actuarial Theory of Pensions and Health Funds; Actuarial Bases for Investments and Financing; and Risk Theory and Reinsurance.

Since 2000, the FCE-UBA has been organizing the Latin American Actuarial Colloquium (Jornadas Actuariales Nacionales y Latinoamericanas) where professors, graduates and students take part in forums and conferences and submit papers on different subjects in actuarial sciences. The next one will take place Oct. 10–12, 2018.

### THE SOCIETY OF ACTUARIES (SOA) LATIN AMERICA COMMITTEE (LAC) AND ITS MAIN OBJECTIVES IN THE REGION

The LAC is a committee comprised of volunteer actuaries of the SOA that carry out the strategic objectives of the aforementioned in promoting the actuarial profession and fostering closer relationships in Latin America through joint activities and projects of relevant and mutual interest. Its main objectives are to:

- Increase the awareness of the SOA in Latin America,
- Collaborate to improve the skills of actuaries and the actuarial profession,
- Enhance the reputation and visibility of the profession and
- Broaden the influence and effectiveness of actuaries in the region.

The LAC seeks to reach the actuarial community in the region, including universities, professional organizations, employers, regulators and actuarial associations. The committee will collaborate with local associations, to enhance the SOA's presence in Latin America and to strengthen its credibility to its Latin American audience. Over the next two years, the LAC will:

- Deepen understanding of local demand and barriers to pursuing SOA exams and credentials,
- Identify relevant continuing education events; leverage the SOA as a sponsor and sought-after SOA speakers and subject matter experts,
- Provide research, such as updating regional mortality tables and establishing joint longevity research, and initiate other relevant projects and
- Keep ongoing communications through publications and surveys.



Pictured L-R Front row: Ann Henstrand, Sofi Garcia, Linda Priebe, Gabriela Dieguez, Lisa Kuklinski, Ronald Poon-Affat, and Luis Caro Back row: Jim Toole, Ramon Galanes, Ed Robbins, Javier Campelo

In addition to the LAC, there are two other regional committees: the China Committee and the Greater Asia Committee. Similar to the LAC, the two committees support members, candidates and other stakeholders via recommended research targets, professional development events, and employer and association outreach.

### UNIVERSITIES AND COLLEGES WITH ACTUARIAL PROGRAMS (UCAP)

There are many benefits associated with qualifying as UCAP, including being eligible to apply for educational institution grants; reimbursement of fees for three individual student preliminary exam registrations; participation in different programs each academic year, such as reimbursement for the purchase of study materials for SOA preliminary exams; SOA sponsorship for an approved on-campus event; and reimbursement of travel costs and/or registration fees for student travel to an approved actuarial conference. For a complete list of the benefits, please visit the following link: <https://www.soa.org/Education/Resources/Actuarial-Colleges/ucap-benefits.aspx>.

There are three levels of UCAP recognition: Introductory Curriculum (UCAP-IC); Advanced Curriculum (UCAP-AC); and Center of Actuarial Excellence (CAE), with different requisites for each one.

- **UCAP-IC.** Must maintain course coverage for at least two SOA preliminary exams and have approved courses for at least one Validation by Educational Experience (VEE) topic area.
- **UCAP-AC.** Must maintain course coverage for at least four SOA preliminary exams with one of those being Exam



MLC or Exam C<sup>1</sup> and approved courses for all Validation by Educational Experience (VEE) topic areas.

- **CAE.** Have attained the highest level of recognition the SOA offers universities. They must maintain eight specific requirements related to degree, curriculum, graduate count, faculty composition, graduate quality, appropriate academic integration, connection to industry, and research/scholarship.

There are more than 200 universities that currently qualify as UCAP, about 80 percent of them in the United States and none of them in South America. For a complete list, please visit <https://www.soa.org/Education/Resources/Actuarial-Colleges/actuarial-college-listings-details.aspx>.

The LAC seeks to reach the actuarial community in the region, including universities, professional organizations, employers, regulators and actuarial associations. The committee will collaborate with local associations, to enhance the SOA's presence in Latin America and to strengthen its credibility to its Latin American audience.

### BECOMING PARTNERS TO DEVELOP ACTUARIAL ACADEMIC EXCELLENCE IN LATIN AMERICA

The curriculum of the UBA is constantly being updated in order to fulfill the syllabus requirements of the IAA and other worldwide recognized international actuarial associations, such as the SOA. In this sense, FCE-UBA is offering in 2018 new courses in Statistics and Financial Mathematics that cover the contents of the first two SOA exams: (P) Probability and (FM) Financial Mathematics.

It is also relevant to say that the SOA approved different courses at the UBA a few years ago as VEE for the three VEE requirements. Those actuarial students from the UBA who have passed the following courses with a grade of at least six:

- (a) Actuarial Statistics & Statistics II; or (b) Econometrics, were able to apply for VEE in Applied Statistical Methods.

- Financial Administration, were able to apply for VEE in Corporate Finance.
- Macroeconomics I & Macroeconomics and Economic Policy; or (b) Microeconomics I & Macroeconomics I; or (c) Economics II (Macro) & Economics III (Micro), were able to apply for VEE in Economics.

It is indeed a significant challenge for the UBA to continue being recognized in Latin America as a center of actuarial academic excellence and, simultaneously, strengthening its relationship with other universities in the region. Relating to this, the SOA LAC is currently serving as a conduit between the UBA and various universities in Colombia, Brazil and Chile to mutually collaborate in updating their respective curricula and adjusting them to best international practices of the actuarial profession.

The LAC visited Colombia in October last year, and presentations were given at different universities including Universidad Nacional and Universidad de Los Andes, which would appear to have the most rigorous and stringent actuarial programs in that country. We will also be visiting Brazil in 2018 and have already made contact with several Brazilian universities, including Universidad Federal de Río de Janeiro. Following on from our visit to Brazil, we will then be in Chile where we have been in contact with Universidad Católica, another university with a strong actuarial curriculum.

As all readers will now be aware, these are very exciting times for the actuarial profession in Latin America. We couldn't be happier having the opportunity to work for both, UBA and the SOA, to develop actuarial academic excellence throughout Latin America. ■

Eduardo Melinsky is director of the Actuarial Program at the School of Economic Sciences at The University of Buenos Aires ([www.econ.uba.ar](http://www.econ.uba.ar)). He can be reached at [eduardo.melinsky@fce.uba.ar](mailto:eduardo.melinsky@fce.uba.ar).



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**ENDNOTE**

1 Effective July 1, 2018, the exams covered must include the Long-Term Actuarial Mathematics Exam or the Short-Term Actuarial Mathematics Exam.

# Actuarial Research Conference (ARC) Held at the University of Western Ontario

By Ben Marshall

The world's largest annual conference on actuarial research was held in Canada this year, from Aug. 8–11 at the University of Western Ontario (corporately branded as “Western University” and more commonly known as “Western”) in London, Ontario. Roughly 170 delegates from across six continents gathered at the Actuarial Research Conference (ARC) to hear more than 20 research presentations and enjoy networking with peers.

The conference kicked off on Wednesday evening with an after-hours grand reception at Museum London, at the edge of the Thames River in downtown London, away from the campus. The networking opportunities continued with an additional reception on the Western campus late on Thursday afternoon.

Each full day of the conference featured a luncheon in the beautiful Great Hall at Somerville House on campus. A final reception and gala dinner was held on Friday evening at Great Hall as well.

The more technical research portion of the program featured four plenary sessions and 74 additional presentations during six concurrent sessions, all over the course of the final three days. Among those, the Society of Actuaries (SOA) sponsored and organized sessions on the emergence of InsurTech, socio-economic drivers of international differences in mortality improvement, climate change research, and the sustainability of health care as it relates to food systems. The SOA also sponsored the Thursday luncheon, featuring a speech by immediate Past President Jerry Brown, FSA, MAAA, on the research activities of the SOA.

The conference was marked by a distinctly international flavor. Aside from representatives traveling from across the globe, the content included plenty of international research. There were presentations on pay-as-you-go pension systems in Colombia, road accident benefits in South Africa, the proposed University Pension Plan for Ontario, portfolio optimization under Solvency II, the sustainability of the U.S. Social Security system, and international developments in longevity. However, many of the presentations were on universal issues addressed by the universal language of mathematics.

The International Section of the SOA was also a sponsor of ARC this year. During one of the plenary sessions, International Section Council member (and research liaison) Dr. Ken Seng



ARC attendees gather for lunch in the Great Hall at Somerville House on the Western University campus.



Members of the Actuaries Climate Index Working Group (from left to right) Ronora Stryker, ASA, MAAA, Caterina Lindman, FSA, FCIA, Tatjana Miljkovic, Ph.D., MBA, and Steve Kolk, FCAS, MAAA. Steve and Caterina gave a joint presentation on the ACI and the impact of our food systems on health and climate sustainability, while Tatiana outlined research results on the modeling of obesity prevalence in the U.S.



Tan gave an update on the section’s global activities, not only in research but in providing services and value to members in every region of the world through networking events, professional development activities, university assistance, and ongoing communications efforts. He also noted the global work of the SOA’s Ambassador Program and its upcoming re-launch to follow later this year.

The conference was organized and hosted by a Western planning committee chaired by Dr. Bruce Jones, FSA, FCIA. The



ARC Organizing Chair Dr. Bruce Jones and Organizing Committee Member Dr. Xiaoming Liu are joined by Dr. Ken Seng Tan, SOA International Section representative, during the ARC kickoff reception at Museum London.

Dr. Santiago Montenegro, President, Colombian Association of Pension and Unemployment Fund Administrators, delivers his keynote address on day two of the conference.

committee and volunteers ensured that the conference was convenient, comfortable, affordable and worthwhile—by all measures, a roaring success! ■



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