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OCTOBER 2017 NEWSLETTER

STAKEHOLDER ENGAGEMENT

IAC Chair Given IASB Observer Role



Congratulations to William Hines, Insurance Accounting Committee (IAC) Chair, who has been appointed to serve as an observer to the International Financial Reporting Standard (IFRS) 17 Transition Resource Group (TRG) of the International Accounting Standards Board (IASB).

IFRS 17, issued in May of 2017 and applicable from 2021, is a principles-based standard that requires the application of significant amounts of judgement by actuaries and accountants within preparers and auditors.

Due to the complexity and nature of IFRS 17, the IASB has decided to seat a TRG to discuss issues that may arise in the application of the standard and provide input to the Board. The IASB has recognized that many aspects of the application of IFRS 17 will not be purely accounting in nature, but have a blend of accounting and actuarial components. The selection of the IAC chair as an official observer acknowledges the nature of the standard and the value the IASB places on the input from the IAA. This will provide the international actuarial profession with the opportunity to directly dialogue with other stakeholders regarding the application of IFRS 17 and provide an actuarial perspective on those topics to the IASB.

The IAA has worked closely with the IASB over the last 20 years as it has developed both an interim and final accounting standard for insurance contracts. IASB staff have attended many IAC meetings. The IAA was an official member of the IASB's Insurance Working Group (IWG) and the IAA commissioned several related research projects.

Joint IAIS–IOPS–OECD–NBS Conference on Consumer Protection in Insurance and Pensions

By Philip Shier, a member of the Pensions and Employee Benefits Committee

I attended the first day of the above conference—which was organized by the International Association of Insurance Supervisors (IAIS), International Organisation of Pension Supervisors (IOPS), Organization of Economic Co-operation and Development (OECD) and National Bank of Slovakia—representing the IAA and the Actuarial Association of Europe (AAE) and, as a guest, was invited to comment at the end of the presentations in Sessions 1 and 2. In my intervention, I noted that the vision statements of both associations referred to contributing to the well-being of society, which encompassed a consumer protection agenda. The most important consumer protection role undertaken by an actuary was helping to ensure the security of the promise

made by the institution (insurer, pension fund) to the individual saver, but the actuary also contributed to the design and pricing of insurance products/pension plans and had a duty to ensure that consumers had "fair, clear and not misleading" information on the risks and potential rewards of long-term saving.

Session 1

This was a roundtable on current consumer protection issues in pensions and insurance sectors—commonalities and differences, which included presentations from several countries on consumer protection structures and recent developments. Marius du Toit, a member of our Actuarial Standards Committee, who was also present, highlighted the South African Financial Services Board's Treating Customers Fairly initiative. There was also a presentation from the European Insurance and Occupational Pensions Authority.

Session 2

This was a roundtable on market trends and their implications for consumer protection in the future, during which participants considered the impact on consumers of Fintech/digitalization. There was also an overview of consumer protection challenges and opportunities from the digitalization of pensions and insurance by Jessica Mosher of the OECD.

The conference provided a good opportunity to develop our relationship with the IOPS and OECD, promote the role of the actuary in consumer protection and network with international regulators.

AAE Committee Meetings

By President Tom Terry



Picture from left to right: Mathieu Langelier; Jan Svab, Czech association president; Kristoffer Bork, AAE Chairman; Bjarni Gudmundsson, Icelandic association president; Tom Terry.

IAA President Tom Terry and Executive Director Mathieu Langelier attended the annual meeting of the Actuarial Association of Europe (AAE) in Copenhagen on September 21–22, when the AAE's General Assembly approved a new Memorandum of Understanding (MoU) between the AAE and the IAA. Our Executive Committee (EC) previously approved of the new MoU on behalf of the IAA, and so it became official in Copenhagen. A key theme of it is to look for and take advantage of efficiencies between the two organizations. In that spirit, Mathieu convened initial talks with his counterpart at the AAE, Ad Kok, in order to identify near-term efficiencies. The AAE annual meeting was also a time to discuss possible coordination of IAA Section colloquia in Europe with similar events hosted by the AAE.

While attending the AAE meetings, Tom and Mathieu took the opportunity to present plaques to recognize anniversaries for two IAA Full Member associations, Česká Společnost Aktuárů (Czech Republic) and Félag Íslenskra Tryggingastærðfræðinga (Iceland), who could not be present at the Chicago meetings.

Session on Inclusive Insurance and Proportionality of Actuarial Services

The Microinsurance Working Group hosted a session entitled Inclusive Insurance and Proportionality of Actuarial Services at the Microinsurance Network's annual member meeting in Luxembourg earlier this year. The network brings together multi-stakeholder microinsurance experts for the sustainable development of the industry. The session focused on the IAA paper on proportionate actuarial services in inclusive insurance markets, which is being developed as part of a joint project with the IAIS, and provided an opportunity for key microinsurance industry stakeholders to provide input to the paper's development.

It was well received, giving rise to some excellent discussion on when and how actuarial skills could and should be involved in microinsurance, and concluded with two prominent microinsurance providers offering to test the draft risk assessment framework being developed for assessing when and to what level actuarial skills are required.

Workshop in Panama City

A workshop entitled Building a Canal from Data to Improved Results was hosted by the Central American Actuarial Association and the Latin America Subcommittee of the IAA Advice and Assistance Committee, in collaboration with Willis Towers Watson. The event, which took place immediately after the ASTIN/AFIR-ERM Colloquium, was attended by 56 participants from various countries.

Experts from Willis Towers Watson led a full-day session on predictive modelling and gave an overview of their basic applications. The agenda for this event provided participants with an opportunity to learn from experts in this field and engage through lively group discussions, and a friendly competition among groups. More details can be found on our [website](#).



UPCOMING EVENTS

The Actuarial Society of Kenya (TASK) 2017 Actuarial Convention

This year's TASK convention will run from November 15–16 in Nairobi with the theme Harnessing Opportunities in East Africa.

The Council of TASK is pleased to invite IAA members to the convention, where attendance contributes to Continuous Professional Development hours (CPD). More than 400 delegates from all over the world are expected to the convention, which will provide a platform for professionals, decision-makers and industry players in the Kenyan and regional financial industry to discuss changes in the industry (insurance, banking, mutual societies, capital markets, employee benefits and risk management), their effects, solutions and how as professionals we can help.

For more information, please visit the [event website](#) or contact info@actuarieskenya.or.ke.

2017 Professionalism in Practice Course, Thailand

The Society of Actuaries (SOA) and the Society of Actuaries of Thailand will present the [2017 Professionalism in Practice Course](#) on November 28 in Bangkok, Thailand.

Seasoned presenters from Thailand and North America will cover a variety of issues encountered daily in actuarial working environments, and explore the professionalism practice, code of conduct, and application of the actuarial profession. The content will be shared through business cases and interactive discussions.

Attendance capacity will be limited so early registration is recommended.

Caribbean Actuarial Association's 27th Annual Conference—Bahamas



The Annual Conference of the Caribbean Actuarial Association will take place at the Atlantis Paradise Island Resort from November 29 to December 1, during which pensions, life and health insurance, investment, and property and casualty insurance topics will be discussed. Click [here](#) for more information.

The ICA 2018 – Reasons to Attend the Congress

The 31st International Congress of Actuaries 2018 (ICA 2018) is getting closer –the final program will be published at the end of November. It includes a wide variety of talks on actuarial and financial issues. Consider the five plenary sessions with highly regarded international speakers, more than 30 invited speaker sessions and 250-plus lectures given by speakers from over 210 different institutions. There will also be an exciting social program, including excursions, limited-attendance experiences with international lecturers and evening events in fascinating locations.

Be part of the ICA 2018! On December 1 registration will open [here](#), where you will be able to sign up for a full week or half a week. Registration includes admission to the congress as well as the social program.

5th African Actuarial Congress— Morocco



The International Actuarial Association, in collaboration with the Moroccan Association of Actuaries, is organizing the 5th African Actuarial Congress, to be held in Casablanca on March 15th and 16th, 2018 at the Hotel Sofitel Tour Blanche.

This event follows the international congress in November 2016 in Cape Town, South Africa, which brought together over 160 participants from 15 African countries and other regions of the world.

As a recurring engagement of the actuarial profession, this congress aims to put the dynamics of the constantly evolving insurance, social security and banking sectors in Africa into perspective, through the lens of the actuarial profession.

For more information, click [here](#).

Council and Committee Meetings—Germany



The next IAA Council and Committee meetings will take place at the [Estrel Hotel](#) in Berlin, Germany, from May 30 to June 2 at the invitation of the Deutsche Aktuarvereinigung. The [IAA website](#) will be updated with further details as preparations continue.

PUBLIC STATEMENTS

One public statement has been issued: the [IAA response to EU strategy on sustainable finance – HLEG Interim Report](#).

NEWS FROM COMMITTEES

Banking Working Group (of the Scientific Committee)

The past few months have been a busy time for the Banking Working Group (BWG). It met during the IAA Council and Committee meetings in Chicago, where a report was provided on its activities, progress was reviewed against the group's workplan and its strategic priorities for 2018 were agreed upon. The group started with members from eight countries and now consists of volunteers from 14. It continues to see an increase in interest from across the globe, with recent additions from Sri Lanka, the U.S., Colombia, Ireland and Mexico.

As part of efforts to provide education and CPD opportunities to banking actuaries and raise awareness of banking practice by actuaries, the Actuarial Society of South Africa (ASSA) Banking Committee and the BWG hosted a webinar to discuss the development and implications of IFRS 9 and showcase how actuaries are adding value to ensure it is implemented successfully.

This webinar, which attracted 117 registrations and 78 attendees from across the globe, was moderated by Michael Tichareva, Chairperson of the Banking Committee of ASSA and the BWG. The panellists were Ania Botha, an associate director at KPMG (South Africa); Matthew Walker, an associate director at Deloitte (South Africa); and Christian Marini, a modelling specialist and project manager at Prometeia (Italy). All have extensive experience in working with banks and in the implementation of IFRS 9 in a wide range of countries. The attendees' questions involved a variety of topics, from the modelling aspect to the macro-economic considerations, displaying the broad range of impacts and interest that this topic has in the actuarial banking community.

Given the positive feedback on the quality of the content delivered at the webinar, and an earlier webinar on

actuaries in banking, several more will be planned for 2018, with considerations for using them to gain CPD hours.

The recording and the slides of the IFRS 9 webinar can be downloaded [here](#).

As part of its strategic initiatives, the BWG designed a banking survey targeted at individual actuaries and student members of IAA member associations. Participation by associations is voluntary. The survey is ongoing until the end of 2017 and possibly the first quarter of 2018, depending on the extent and pace of responses. The intention is to seek the views of actuaries and students working in banking or who have an interest in banking. These would then be taken as input towards developing banking as a practice area for actuaries at a global level, with banking education development and provision of CPD opportunities being pivotal in the initiative.

As part of the bid to develop banking education and provide CPD opportunities for actuaries and actuarial students in banking practice, the Banking Education Interest Group, established in 2016 by the Education Committee as an informal group, has been expanded to include more members from different jurisdictions and is reporting to both the group and the Education Committee. Its mandate is to investigate banking education and CPD development for the global actuarial profession.

The survey includes questions on education development and CPD opportunities and the results are expected to provide input into these important initiatives. The results to date show great interest in banking, with a high proportion of participants wanting further details on the actuarial profession in this area.

The participating countries to date are South Africa, Australia, France, the U.S. and the UK. More member associations are being approached. Should your association want to participate in the survey, please contact [Amali Seneviratne](#).

NEWS FROM SECTIONS

AFIR-ERM

At the recent General Assembly held at the AFIR-ERM Colloquium in Panama City, the Section Committee welcomed new members and thanked some long-standing members as they completed their terms. Carla Angela, Pierre Devolder, Raimond Maurer and Elliot Mark Varnell have completed their terms, and Andrew Cairns will not be continuing to serve. László Hrabovszki and Miwaka Yamashita completed their terms and were re-elected for another. Jules Gribble (Switzerland), Ermanno Pitacco (Italy), Fernanda Salas (Mexico) and Malcolm Kemp (UK) have joined the committee after being elected. It is interested in hearing from other volunteers who would like to contribute to Section activities such as webinars, working groups and research projects.

The Bob Alting von Geusau Prize Winning Paper was announced at the General Assembly. This prize is awarded for the best paper on an AFIR-ERM topic published in the ASTIN Bulletin in the previous year. The winning paper was Consistent Yield Curve Prediction by Josef Teichmann and Mario V. Wuthrich, which was published in 2016. The prize comes with CAD 5,000 to be shared by the authors. There is also an invitation for one author to present the paper at the next AFIR-ERM Colloquium, which in this case will be part of the ICA 2018.

The AFIR-ERM Colloquium, held jointly with ASTIN in Panama City in August, was a success. There was a strong attendance from Central and South American participants and we hope they continue their involvement with the Section. A valuable development at the colloquium was the offering of educational workshops in addition to a program of scientific papers. The AFIR-ERM workshops were ERM—Process and



Risks Management Techniques, presented by Stephane Loisel and Dave Ingram; Derivative Pricing, by Olivier Le Courtois; Term Structure Models, by Michael Sherris; and Longevity Risk, by Andrew Cairns.

The General Assembly confirmed the proposal by the Istituto Italiano degli Attuari and Ordine degli Attuari to host the AFIR/ERM Colloquium in Italy in 2019. The Section is considering a proposal from the Polskie Stowarzyszenie Aktuariuszy (Polish association) to host the colloquium in Warsaw in 2020 in conjunction with ASTIN and possibly other Sections.

ASTIN

Claim Development Report Available

The ASTIN Working Party on Individual Claim Development with Machine Learning has just released its final report, along with the Excel and R codes used for the modelling. It can be downloaded [here](#).

Previous Working Party

The results of the ASTIN Working Party on Worldwide Non-Life Best Estimate Practices are [still available](#).

Risk Management Working Party Launched

ASTIN continues to bridge the gap between practitioners and academics, and has launched a working party on Agent-Based Models, Networks and Cellular Automata in Risk Management.

If you want to join, [e-mail](#) us with your resume.

IAAHS

As planned, the Health Section is on track to bring to its members many webcasts on current and emerging topics in 2017.

On September 26, we held the third in a series of joint webcasts with the IAA Population Issues Working Group (PIWG), Global Perspectives on Long-Term Care (LTC), featuring Japan and Hong Kong. Professor Tomonori Hasegawa, Professor Peter Yuen and Alex Leung discussed global challenges facing LTC, and the potential solutions, including delivery methods, financing and program design, as well as the role that actuaries play. This series highlights the PIWG report on this topic. Tomonori Hasegawa is Professor of the Department of Social Medicine at Toho University's School of Medicine. Peter Yuen is Dean of the College of Professional and Continuing Education of the Hong Kong Polytechnic University. He is also an editor and author of the recent book [Sustainable Health and Long Term Care Solutions for an Aging Population](#). Alex Leung, an IAAHS Committee member, is the Co-founder and Chief Insurance Officer at BOLA, a full-stack insurance technology company in Hong Kong.

The IAAHS is focused on organizing international events covering various continents and was very pleased to present this webcast on this relevant topic.

In February, our Micro-Health Insurance Topic Team leader, Lisa Morgan, moderated the webcast Health Insurance for the Emerging Consumer, presented by Lorenzo Chan, President and CEO of Pioneer Life and Retail Organization and Head of the Pioneer Group; Eduardo Banzon, Principal Health Specialist at the Asian Development Bank; and Sanjay Pande, Executive Director of Finsall Networks. It was organized by the International Labour Organization's Impact Insurance Facility and the United Nations Environment Programme's Principles of Sustainable Insurance Initiative, and we were pleased to be able to bring it to our members.

The IAAHS will soon hold two more webcasts. On November 10, we will hold another with the American Academy of Actuaries, End-of-Life Care in An Aging World: A Global Perspective. On December 14, we will

hold the fourth in a series of LTC webcasts, jointly with Singapore Actuarial Association, featuring Singapore and Australia.

All of the [Section's webcasts](#) are recorded and available for replay to IAAHS members.

IACA

IACA raises the IAA's Visibility

Cathy Lyn, IACA Chair and a past president of the Pacific Rim Actuaries Club of Toronto (PRACT), attended a PRACT barbecue, an informal gathering of young Canadian actuaries and students. Mercy Yan, another PRACT past president, and her husband host this function every year and Cathy used the opportunity to promote the IAA and IACA and provoke innovative thoughts that could eventually lead to more jobs.

The PRACT, formed by August Chow in 1993 for actuaries interested in the Pacific Rim region, has around 150 members and is run by an energetic executive. Its events are well attended and attract a cross-section of the industry.

This club has been a forum nurturing the younger side of the actuarial profession and forms a training ground in social settings to practice soft skills such as networking that can lead to business development and cross-fertilization of ideas.

Celebrating a prominent actuary: Daisy McFarlane Coke

The contribution made by Daisy McFarlane Coke to the actuarial profession was celebrated along with her 80th birthday at a special event in Jamaica. She has been a member of various communities and IACA; supported her clients, the government, the retirement and healthcare systems and the insurance, banking, agriculture and housing industries; acted as a mentor and role model for countless actuaries pre- and post-qualification; helped found the Caribbean Actuarial Association (now an FMA of the IAA); and much more. Astor Duggan and St Elmo Whyte, two senior actuaries, helped lead the celebration.

Daisy won an open scholarship to university in 1953 followed by a Jamaican government scholarship to England to become an actuary. There she gained practical experience at the UK Government Actuary's Department and was awarded her FIA (Fellowship of the Institute of Actuaries) in 1970, becoming the 13th living female FIA. Although now retired, she still contributes to the profession.

Former Prime Minister the Hon Portia Simpson, ex-Minister of Finance Dr. Peter Phillips and ex-Governor General Sir Kenneth Hall were among the dignitaries who joined the actuaries honouring Daisy, who has been recognized with the Order of Jamaica. Cathy Lyn and IACA Committee members Mike Smith and Shubhash Gosine represented the IAA. Nikhil Asnani, a 23-year-old Fellow, played a couple of Bob Marley pieces with a band at the event. Call for Nominations for IACA Lifetime and Young Actuary High Achievement

Awards – ICA 2018

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

The Max Lander Award has been given to the following luminaries of our profession: Jim McGinnitie, Paul Thornton, Klaus Heubeck, Fred Kilbourne, Chris Daykin and John Martin. Who will receive this lifetime achievement award at the ICA 2018? Now is your chance to nominate that someone special whom you believe deserves this recognition.

The Geoffrey Heywood Award has so far been given to Marian Elliot and Chintan Gandhi. The world is full of talented, bright young actuaries like Marian and Chintan who are bringing great credit to our profession.

Someone you know is a potential winner of this award at the Berlin Congress, so be brave and nominate him or her.

Please e-mail your nomination with brief reasons to [Brent Walker](#), Chair of the IACA Awards Subcommittee (with a copy to IACA Chair [Cathy Lyn](#)) before March 30, 2018.

About the Max Lander Award

This award is a lifetime achievement award for a (current or past) consulting actuary. It is named in honour of the late Max Lander, a founding member of IACA and its initial Secretary/Treasurer. It is given to a member of the actuarial profession who has contributed to the public awareness of the work of the profession and the promotion of the business of consulting actuaries. The 2018 award will be the eighth to be presented.

About the Geoffrey Heywood Award

The Young Consulting Actuary High Achievement Award is named in honour of the late Geoffrey Heywood MBE, IACA's founding chairman. It will be given to a young (under the age of 40) consulting actuary who has provided significant services to the public and the actuarial profession. The next award will be the third to have been presented.

The intent of these awards is to help bring the consulting actuarial profession into the public domain and encourage the successful development of consulting actuarial practices and actuarial literature.

The recipients will receive a plaque and a monetary award that will be donated in their honour to an actuarial-related organization their choosing that is involved in or promotes the development of the profession. The recipients will be notified and presented with the awards at the IACA Biennial General Meeting at the ICA 2018.

NEWS FROM MEMBER ASSOCIATIONS

Deutsche Aktuarvereinigung (DAV), Germany

European Actuarial Academy Autumn Training Programme Available

As the European knowledge centre for actuaries, the EAA – European Actuarial Academy will offer a broad variety of attractive actuarial-oriented training topics within the coming months:

EAA Forum: Business Simulation Game on Risk and Capital Management under Solvency II

November 13–14, Copenhagen, Denmark

For two days, participants will take the challenging role of an executive board, managing an insurance company under the new Solvency II regime. Through the game, based on an interactive management simulation, they will learn how to succeed in Europe's insurance markets by understanding the impacts of risk and capital management under Solvency II.

Stochastic Modeling – Theory and Reality from an Actuarial Perspective

November 27–29, Athens, Greece

This seminar is based on the IAA book of the same name, which intends to provide actuaries with a comprehensive resource that details current stochastic methods and provides background information on them as well as their advantages and disadvantages. The seminar is suitable for actuaries, actuarial students and other professionals involved and interested in actuarial modelling in life and non-life.



Health Insurance: From the Actuarial Background to Product Development

November 16–17, Munich, Germany

In a broad sense, the expression “health insurance” denotes a large set of insurance products, including traditional ones like personal accident insurance or sickness insurance. More recently, new products have been proposed. The seminar aims to give participants a good understanding of the nature of health insurance products and related actuarial aspects, going into details on particular and critical features and outlining recent developments.

Validation of Technical Provisions under Solvency II – An Actuarial Perspective

December 4–5, Budapest, Hungary

Solvency II requires that a validation of the Technical Provisions has to be performed and adequately documented by each legal entity. This validation activity has a linkage to Pillars I, II and III of the new solvency system. The seminar will provide a general overview on validation aspects. Starting with a summary of the existing regulatory framework, we will provide participants with helpful interpretations and practical examples on how to manage the validation tasks. All sessions will be a combination of lectures and interactive discussions.

Webinar: Equity Volatility Modelling and Forecasting

December 6, 10:00–12:00 CET

In recent times, we have been accustomed to equity volatility being comparatively low compared to historical levels. However, a number of factors indicate that we may expect to see a return of volatility in the near future. This webinar is aimed at providing participants with an understanding of how equity volatility behaves, and the predictive models that could be used to forecast volatility. It will help practitioners to be well placed to monitor, measure and manage the implications of volatile movements in equity volatility itself.

Additional information and registration forms are available [online](#). To stay up to date regarding EAA activities, [register](#) for its newsletter. You may also like to connect with the [EAA LinkedIn Group](#).

American Academy of Actuaries (AAA), U.S.

Academy Leaders Present at IAA Meeting

Many of the AAA's leadership and active volunteers participated in the IAA Council and Committee meetings in Chicago. As at each IAA meeting, the Academy hosted a breakfast meeting for all representatives on IAA committees from each of the U.S.-based actuarial organizations, to discuss issues of importance to U.S. actuaries, including education, big data and changing international accounting and capital standards.

Working to bring the U.S. perspective to actuarial associations around the world, Academy President Bob Beuerlein helped lead a roundtable discussion among the IAA members interested in public policy, and assisted in generating discussion among the IAA members' presidential leadership on how the IAA can better serve the needs of its Full Member associations. In addition, Al Beer, former chairperson of the Actuarial Standards Board and the Academy's representative on the Education Committee, gave a presentation to that group about how qualification to practice is viewed and specified through the U.S. Qualification Standards, and former Academy President Cecil Bykerk gave a presentation to the Professionalism Committee on the counselling and discipline process in the United States.

Janet Barr, a member of the Academy's Social Security Committee, presented to the Social Security Committee.



Webinar Highlights Retirement Issues in the U.S., UK and Australia

The Academy and the UK-based Institute and Faculty of Actuaries (IFoA) co-hosted a free webinar on retirement readiness that focused on the U.S., UK and Australia. Attended by more than 400 registrants, it focused on a new report authored by the AAA, IFoA and Actuaries Institute of Australia, *Retirement Readiness: A Comparative Analysis of Australia, the United Kingdom, and the United States*, which shows that people in the three countries struggle with planning for retirement because they often are not equipped to address complex questions related to longevity and asset decumulation.

The presenters—Ted Goldman, the Academy's senior pension fellow; Past Academy President Ken Hohman; IFoA Policy Manager Rebecca Deegan; and Steve Jackson, the Academy's Assistant Director for Research, Public Policy—outlined the report's key findings based on a survey conducted in the three countries. The report follows up on key issues raised in the 2015 joint report *The Challenge of Longevity Risk: Making Retirement Income Last a Lifetime*. Mr. Goldman gave an overview of the U.S. retirement system, while Ms. Deegan highlighted the UK's retirement system and challenges.

Mr. Hohman said: "Any solution can't ignore the status quo, and we need to reflect the existing framework in each country's retirement policies." He added that recent changes in all three countries had improved retirement preparation. "The bottom line is that progress in retirement readiness is possible . . . and we hope this report is going to stir some action among policymakers in our three countries."

Global Health Webinar Announced—End-of-Life Care in an Aging World

A new webinar, hosted by the Academy and the IAHS, will explore the increased health care costs of global aging. Speakers will discuss quality of life during the end-of-life period, palliative versus curative care, and stakeholder strategies for addressing the unique health care challenges at the end of life. This webinar will be held on November 10 from 11:00 to noon Eastern Standard Time. Registration is free for Academy and IAHS members. An Issue Brief on the topic is also pending.

Society of Actuaries, U.S.

Events in Latin America and Asia

Representatives from the Latin America Committee (LAC) attended the Sixth International Actuarial Symposium in Bogotá, Colombia, from October 26–27. The event, held by the Asociación Colombiana de Actuarios (Colombian Association of Actuaries), is the main actuarial event in the country and is attended by actuaries, statisticians, risk professionals and actuarial students. Among the agenda topics are predictive analytics, risk management and regulation.

The LAC was formed in late 2016 to promote the actuarial profession in Latin America and foster closer relationships in the area through joint projects.

The SOA is planning its signature events in Asia. Save the dates for the third Annual China Symposium, from May 28–29, 2018, in Beijing, China, and the eighth Annual Asia-Pacific Symposium, from May 24–25, 2018, in Seoul, South Korea. Working closely with its regional committee volunteers, the SOA plans to include technical and professional content focused on the local industry and actuarial practice.

OF INTEREST

Actuarial Association of Europe

New Chairperson



The AAE announced that Thomas Béhar has been elected as the new AAE Chairperson for the year to September 2018. A French national, he was President of the Institut des Actuaire in France from 2006–2010 and 2012–2016.

He said: "Representing the voice of 36 actuarial associations and almost 23,000 actuaries in Europe, I am very honoured to be able to lead on the continuation of the long tradition of selfless AAE contributions to the public interest of our European community. With a new strategic plan and a new governance, we are ready to address the fascinating challenges that Europe and our profession face today. We will work in close cooperation with our members, the European institutions and our European stakeholders. Our special focus will remain on the new European regulations and the review of the existing ones. We will also open our work to the wider fields, meaning

notably the impact of the Fintech world and the new technology in our European practices."

During last week's General Assembly Esko Kivisaari (Finland) was elected as Vice-chairperson for the coming year.

The newest issue of The European Actuary (Number 15 – October 2017) is now available. Please visit its website of The European Actuary for prior issues or further details.

Becoming an Analytics-Based Insurer: A Road Map

By Stephen Lowe, FCAS, MAAA, CERA



An analytical arms race is disrupting the traditional insurance company business model and changing the imperatives for success. Predictive modeling is steadily expanding, reaching beyond merely being a tool for product strategy to becoming an integral function within a new data and analytics-based business model.

Transformations come with challenges. Insurers are currently at various stages in the evolution towards an analytics-based organization. Those well along the journey are building processes that focus on innovation along each element of the value chain displayed in Exhibit 1. Meanwhile, insurance executives are facing two concurrent implementation challenges. Namely, they must find the talent necessary to transition the traditional business model to the data and analytics driven one while also engaging in company-wide change management

Necessary Skills

Since introducing predictive models to personal auto insurance more than 20 years ago, insurers have gradually expanded their use of predictive models to other insurance lines and applications. The three most common predictive modeling applications are underwriting/risk selection, evaluating fraud potential, and deciding when to order reports (such as credit), according to Willis Towers Watson's 2015 Predictive Modeling and Big Data Survey.

Additional applications in the ranking include: premium auditing, advertising strategy, claim triage, underwriting expense efficiency, determining litigation potential, agency management/compensation, loss control and agent placement/distribution management. Released in February, the report's conclusions

were based on the responses of 61 North American property/casualty insurers.

Capitalizing on the new technological landscape requires a team that possesses three primary skills sets. The first is data hacking, which in this context does not refer to criminal activity but describes the mindset to develop solution-yielding approaches. Hacking skills include data sourcing knowledge, capabilities in data assembly and management, and experience in scrubbing and extracting information from raw data.

Facility in contemporary analytics tools built on new era math and statistics is the second necessary skill. These include Generalized Linear Models (GLMs), Classification and Regression Tree Analysis (CART), machine learning, data visualization, etc., that permit deeper insights into relationships evidenced within the data. However, access to infinite data and statistical prowess is not enough to build a truly analytics-based insurance company. For that, the third skill is required: contextual knowledge, referred to by some as domain knowledge, which includes full appreciation of insurance risk.

Context is the deep knowledge of the critical nuances and complexity of insurance that assures a focus on relevant data rather than data for its own sake. No one can adequately and effectively analyze a set of data without fully understanding its context – the environment from which it emerged. Context, for example, is necessary for considering how the predictive models should be developed for appropriate decision-making and what will happen if the external environment or the internal incentives of the decision makers change.

Finding analytical professionals with the skills and knowledge required for becoming a truly analytics-based insurer differ from traditional business skills primarily because of three incredibly rapid technological advances. First, the cost of computation and data storage is no longer a significant part of the strategic calculus. Thanks to low-cost cloud servers, insurers can gather, retain and manage massive amounts of data.

Second, data sources are plentiful and growing exponentially as monitoring devices have become ubiquitous. Automobiles will allow insurers to capture location, acceleration and speed a dozen or more times a second and analyze how usage translates into accidents. By deploying drones, home insurers can capture roof condition before and after a storm to settle damage claims.

Third, the tools and applications to assemble, manipulate and analyze data are better than ever and continue to improve. Summarizing and segmenting data is no longer necessary to make analysis manageable. Transactional level data, even in volumes measured in terabytes, works with today's predictive models.

Technological change has been significantly profound. It has even shifted the focus of statistics away from traditional sampling theory since an entire population can now easily be analyzed. State-of-the-art applications and contemporary programming languages such as R and Python allow insurers to handle very large and complex data sets, perform analytics, create meaningful data visualizations and build quite effective predictive models.

Further, analytic models are also changing, from merely descriptive to predictive and ultimately, to prescriptive. Claim triage applications, for example, are prescriptive because they analyze the attributes of a claim when it is reported and recommend the appropriate adjuster based on their experience and expertise.

To become analytics-based, insurers are aggressively staffing predictive analytics teams and linking them into the business. However, as interest in predictive analytics has spread from a few carriers to the majority of them, the demand for talent is outstripping supply, making talent acquisition and management critical issues.

Talent Shortage

An insurer's ultimate goal is to benefit from the intersection of the three skill sets as outlined in Exhibit 2, which is a variant of one suggested by Dave Conway, a prominent data scientist.



Since there is currently a shortage of analytical professionals, those responsible for building predictive analytics teams are faced with a Hobbesian choice. Should they hire newly minted data scientists straight out of universities and teach them insurance? Or, should they redeploy actuaries and ask them to round out their contemporary statistics and analytics skills? Both approaches mean that team members require training to overcome a steep learning curve, thus affecting immediate productivity.

Data scientists are one potential talent source. Those being hired by insurers generally are recent graduates, usually with an advanced degree, who have been trained in the first two skill sets. Their advantage is the currency of their education, giving them up-to-date technological knowledge.

However, in conversations with analytic team managers, newly-minted data scientists typically lack understanding – or context -- of how insurance and risk work. They require training in this third skill area before they can be effective and it takes awhile to be well versed in insurance.

As the original architects of the insurance industry's predictive models, actuaries possess contextual knowledge as well as aptitude in hacking and analytics. From the first predictive model in 1880 to predict life expectancy to current applications, actuaries have been in the predictive modeling game since the profession was created.

To help fill the talent gap that exists today, the Casualty Actuarial Society (CAS), through its new wholly owned subsidiary, The CAS Institute, will offer both data scientists and actuaries a new data and analytics credential to provide an objective skills benchmark. The CAS Institute's program will not only focus on the three skill areas, but will feature a capstone project requiring candidates to apply what they have learned to develop a solution to a real-world problem. (For more information, please visit TheCASInstitute.org.)

Challenges Beyond Team Building

As the analytics team expands predictive models to more decision areas and quantitative professionals master the three necessary skill sets, insurers pioneering the data driven and analytics approach face other challenges to overcome. Such insurers are finding that big data is important, but it isn't enough. Despite a wealth of available data, decision makers can often still be starved of true insight. This should change once the appropriate analytical teams are put into place and appropriately trained.

Becoming a data driven and analytics based insurer requires preparation for necessary changes in culture. To create the most value, analytics must be deeply embedded in an organization's operations so that information and insights are shared across business units and functions. Oftentimes, the hardest aspect of implementation is not generating and sending the signal insights, but assuring the appropriate decision makers can receive and accept them.

Resistance to change is natural. Managers can be surprisingly unreceptive or feel threatened by the insights predictive models can provide. This is especially true if the modeling team is not fully supported by the C-Suite ("tone from the top") or is perceived as merely part of the "back-office." The challenge is exacerbated when end-users do not understand the terminology or the predictive models are not well explained.

Part of the push towards being analytic-based is the clear benefits from better insights to support decisions. Research shows that analytical judgment outperforms what behavioral scientists call clinical judgment. The latter is the experience and instinct underwriters develop to determine individual risk selection and make pricing decisions. Claim adjusters also employ their own clinical judgment to make individual claim handling decisions. Analytical judgment is superior to clinical, however, because it is based on all available experiences rather than the experience of one person.

While the benefits are objectively demonstrative, insurers still sometimes encounter clashes between analytical results and clinical judgments. This is not an uncommon problem, as illustrated in the book and

movie Moneyball, in which the baseball scouts are unable to accept even the idea that a statistician could make better recommendations on player selection. They correctly perceived the possibility as an existential threat. Underwriters and claim managers must not be put in the same position, lest they react the same way.

Of course it is best to seek a combination of analytical with clinical judgment, as this can be superior to either in isolation.

Conclusion

The availability of big data coupled with technological innovation are disrupting the traditional insurance company business model, moving it to one driven by analytics. Since data scientists and actuaries generally bring different skill sets to an analytics team, they will need to cross-pollinate until individual professionals can offer all three skills necessary for successful analytics: data hacking, modern statistical prowess and intimate insurance knowledge.

While insurers are building analytical teams to complete the three necessary skill sets for the new data and analytics insurance company model, it is just as critical to address barriers to integrating analytics into the company. Effective change management that helps employees embrace the benefits of the analytics model is another necessary element for effective transition from a traditional business model.

Bio:

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