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C O N T E N T S

"I hold every person a debtor to his profession, from the which as men of course do seek to receive countenance and profit, so ought they of duty to endeavour themselves by way of amends to help and ornament thereunto -Francis Bacon"

"A noble man's thoughts will never go in vain. -Mahatma Gandhi."

FROM THE DESK OF PRESIDENT

Mr. Rajesh Dalmia 4

FROM THE DESK OF CHIEF EDITOR

Mr. Sunil Sharma 5

18TH GCA INTRODUCTORY ADDRESS

by Mr. Rajesh Dalmia 6

18TH GCA KEY NOTE ADDRESS

by Mr. T. S. Vijayan 7

EVENT REPORT

Plenary Sessions by Mr. Ashik Salecha 10

Concurrent sessions on Life Insurance by
Ms. Bhavna Verma & Ms. Vandana Baluni 14

Concurrent sessions on Health & General
Insurance by Mr. Vikas Garg 20

2016 Actuarial Gala Function and Awards (AGFA)
Ms. Vichitra Malhotra 27

Concurrent sessions on Pension
by Mr. Nandan Nadkarni 28

The Math Stars by Ms. Ridhi Mehta 30

IAI student Forum by Ms. Caryn Chua 31

Concurrent sessions on Pension & Other
Employee Benefits by Mr. Ritobrata Sarkar ... 33

Concurrent sessions on Data Sciences
by Mr. Krishna Singla 36



INTERVIEW

Ms. R.M. Vishakha - CEO, MD-IndiaFirst Life Insurance Co. 39

FROM THE DESK OF

Chairperson

2016 AGFA & 18th GCA Organizing Group
– Mr. D C Chakraborty 42

Chairperson

Peer Stakeholder and International Relations
Advisory Group
– Mr. Bharat Venkatramani 44

Annual Subscription Notice 46

CAREER CORNER

Sahara India Life Insurance Co. 2

General Reinsurance AG 26

PR Donnelley 32

Star Health Insurance 37

XL India Business Services Pvt Ltd 45

AIG 47



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From the Desk of

the President

– Mr. Rajesh Dalmia

Dear Members,

Job as an actuary has been ranked in the list of top ten jobs for several years in the US and it was no wonder that in 2015 it was ranked as number 1 by careercast.com. Though, we do not have any such survey in India but I am certain that if it is conducted it would rank in top ten. Yes, the only challenge that we may face is we are very few and not a significant number to be counted in the list of jobs.

So, how do we become significant even when we are too small a number and are likely to remain so for long? Our tag line says “serving the cause of public interest”. As long as we make significant contribution towards the public interest, the insignificance of number will not matter. There was a time when we were less than hundred and yet we contributed significantly as our members took the top positions in LIC and were influential in the public policy. Each of us needs to live up to the standards to “serve the public” and ensure that the profession moves forward. A profession is as good as its members are and especially for

a small profession like us it is the profound truth.

Recently, the UK profession did a survey to find out the value of membership and why would a member retain the membership. The most important reason is “professional recognition.” Being an actuary is more than a job – it’s an identity. The profession is highly respected within the financial world and the business community. It opens up the employment opportunities across the world. The second most important reason was “regulation.” That the public values the standards and professionalism set by the Institute and it provides a support to the actuaries to adhere to these standards. I am sure if we do such a survey these findings would come on top here too.

In the area of the standard setting, we have not done much over the last few years. All the advisory groups have been asked to re-look at the existing standards and modify these as appropriate. Quality Review Board (QRB) is now asking for evidence of compliance with these standards. We at the Institute has never asked

for evidence unless there has been any complaints regarding the same. However, the era is changing and Institute would be institutionalizing mechanisms to check for the compliance by the members against these standards. Any deviation from these standards would be treated as misconduct under the Actuaries Act.

Last year, we asked for compliance questionnaire to be filled by the Appointed Actuaries of Life Insurance and send it to us for review. This year, we would extend that to all practicing actuaries in all the areas including pensions. To begin with, we would seek compliance with APS-9 and then extend it to other APSs. We are answerable to QRB and public at large. It is important that we remain a self-regulatory body which means that we also act in a responsible manner demonstrating self-less actions for the benefit of the public at large.

The profession needs your support in the journey of strengthening the compliance with practice standards and changing them with the changing time.





From the Desk of

Chief Editor

– Mr. Sunil Sharma

It's very refreshing to catch up with readers through this column after the end of the 18th Global conference of Actuaries. I would like to take the opportunity to thank each and everyone involved in managing the GCA event and to those who made the efforts to attend it. Overall it was a successful event with lot of coverage by media.

We are already in March and the financial year 2015-16 is reaching toward its completion. The Life Insurance Industry this year has shown a reasonable growth and seems to be picking up demonstrating the resilience of this Industry. The Indian Life Insurance industry for YTD Feb 2016 showed a growth of 8% in new business Premium. The private Life insurance companies showed a

corresponding growth of 14%. While there is positivity around the growth of the Life Insurance sector in India, the Insurance penetration is still at very low level. Unfortunately, Indian lives are significantly underinsured, leaving families exposed to large uncertainties of Life.

Post the passage of Insurance amendment Bill, some of the global insurers have taken larger stake in Indian Insurance companies. A few companies are planning for the IPO. I am expecting a large scale opportunities for actuaries to work in the area of valuation of existing Life insurance companies and setting of new insurance companies. Therefore, the profession needs more qualified and experienced actuaries.

One other critical change that that will require actuarial skills is implementation of IFRS. The Authority is likely to come with guidelines on the implementation of IFRS for Insurers. This is likely to be one of the key projects for insurers over the coming year.

This dynamic landscape, resulting from economic and regulatory framework development, brings a significant amount of opportunities and challenges for the actuarial community to meet the resource needs for existing insurers and potential new insurers. I firmly believe that it's likely to lead to generate fairly good amount of employment for actuarial students and qualified actuaries.

I look forward to this and with this note I will like to sign off now.

LETTER TO THE EDITOR

suggest new features with letters to the editor. Kindly mail your responses on library@actuariesindia.org with your name & contact details. Appropriate responses will be published in Actuary India magazine with the approval of competent authority.

18TH GCA | INAUGURAL SESSION

INTRODUCTORY ADDRESS BY IAI PRESIDENT – MR. RAJESH DALMIA During 18th GLOBAL CONFERENCE OF ACTUARIES



Thanks Dilipda for those kind words. I welcome distinguished guests, IRDAI chairman, Mr Vijayan, presidents of various other actuarial bodies and delegates of other actuarial associations, our member and students

Last year I said, next year I will be here to tell you how much we have achieved and where we have faltered. So I am happy to say that what we set out to do, a lot of those have been achieved. A lot of steps have been taken towards implementing the Actuaries Act, improving the professionalism standards within the profession and the work is still undergoing. Draft of COP guideline was issued and a lot of comments were received. The finalization of draft is still pending but it is a work under progress. We have improved the member services quite a lot; examinations results are now getting through SMS to the members. They don't have to go to the website and search for it. The answer scripts are also given to the students now; all of these towards improving

the professional examinations services. We are also exploring other opportunities for improvements which would be unveiled over the next year.

Somebody told me that if there were no jobs for Actuaries and we keep producing Actuaries at a high rate, it's going to be a challenge. The demand - supply gap in actuarial profession across the world was quite high in 2005 as reported by International Actuarial Association. The estimated gap in 2005 was roughly around 40,000 Actuaries shortage globally and today that gap has not decreased, it still remains the same. In 2005 there were around 41,000 Actuaries roughly, today we have around 70,000 Actuaries globally and the growth has barely kept the pace with the GDP all over the world. In 2005 World GDP was 43trillion and today it is 70trillion. Supply is approximately 1,000 Actuaries per trillion. If we go by that measure in India, the GDP is 2 trillion and membership today stands at 300 plus/minus 5% of it. By this measure,

we do need around 2000 actuaries. I am glad to say today we have 35 students qualifying as actuaries and my all efforts, is to increase that number as much as possible and take it to 100 in the shortest span of time.

We have shortage and we understand that we cannot fulfil this shortage completely by our own membership and that's where mutual recognition with other bodies is quite helpful. Earlier when we opened up in 2000 we signed up a Mutual Recognition Agreement with UK body and that helped a lot when the sector opened up and today, we reached another milestone, we signed up Mutual Recognition Agreement with Casualty Actuarial Society. Today we are at the stage where GI Actuaries are in huge shortage in India and the MRA with Casualty Actuarial Society will probably help to fulfil that gap.

We believe that this partnership will help not only in a traditional actuarial science but also will move us ahead towards newer areas like analytics and data science. To that extent, the Institute has also formed a working group headed by Debashish who heads analytics at Deloitte and who will head that group to look at this newer opportunities of analytics and data science. His mandate is also to work closely with the Casualty Actuarial Society to devise a certification course where our members can get into newer areas.

To that extent this will help reduce the problem of unemployment at entry level though at qualified level there is a shortage.

So, in my view, the future of the profession is great and this GCA would enable us to foster ideas for this bright future.

KEYNOTE ADDRESS BY IRDAI CHAIRMAN – MR. T S VIJAYAN During 18th GLOBAL CONFERENCE OF ACTUARIES

It is always a privilege to attend Global Conference of Actuaries, where we get to meet the leaders of Indian insurance industry and this profession.

Insurance in India has a very long history, with Insurance Act passed in the year 1938, even before India got independence, to give a definite direction to the insurance industry. In 1956, 'Life Insurance Corporation of India' came into being by nationalising all life insurers and in 1972 it was the turn of general insurers. When we look at the history of insurance in India, we understand the evolution of the economy of this country. Recently, in 2014, another amendment has happened to the Insurance Act which devolved lot of responsibility to the regulator. Many aspects hitherto hard coded in the Act were removed and the regulator is to specify regulations to cover the aspects. Regulation making is relatively dynamic and can more promptly address the evolving issues as economic scenario is changing very fast. It would be the duty of the regulator to respond to the changes occurring and put in place necessary regulatory framework from time to time.

In the year 2014-15, Indian insurance industry witnessed positive growth though not to the extent that one would expect. Real growth rate was 1.8% only and it was lowest when compared with Asian market which recorded real growth of 6.5%, the emerging markets - 7.4%, advanced countries - 2.9%. Probably during the year 2015-16, we should be able to make reasonable growth. We have to identify what are the things which



are relevant for the customers which can lead to capturing the customers' mind.

Pursuant to recent amendments to the insurance legislation, many regulations were notified in the past few months. It is expected that significant regulation making process would be over by March 2016, and we should be able to look forward to a new regime. One of the features in the Indian insurance industry has been that we bring regulations after due consultation with all stake holders. The process involves developing internal concept note / discussion paper, public exposure draft for comments with each comment received being carefully examined to arrive at a balanced approach. Finally, it is taken to the Insurance Advisory Committee, which includes the President of Institute of Actuaries of India, and representatives of various other stakeholders to make

their recommendations to arrive at an appropriate conclusion. This has been happening very successfully and probably this is the reason we are able to bring balanced regulations. In current scenario, the focus of industry should be on managing expenses, commissions and customer grievances.

When we look at the products, before nationalisation, there were 245 life insurers operating in India, many of them had very strong foreign participation. Even at that time we had a very strong actuarial community serving Indian insurance industry with collaboration of UK and other countries and hence insurance products offered in the Indian market during the pre-nationalisation period were having international flavour and representing what were available across the globe. Nationalisation of the industry has brought the focus on public welfare. The reflection on

the insurance products offered has been welfarism as we call it. More focus was on public welfare rather than on the profits and scope for competition was less. For public welfare, focus was to channelize policyholders' money to the nation building activities while offering necessary insurance coverage.

After the industry was opened to private participation in the year 2000, we see today more than 50 insurance companies are operating in Indian market with most of them having foreign shareholding and strong technical support. We witness significant changes in the products offered and distribution fee structures. In the life insurance area unit linked policies came into being. New distribution modes of Bank Assurance and Corporate Agency system came into being. Processes like daily calculation of 'Net Asset Value' (NAV) which was unheard of in the insurance industry were adopted and a bouquet of linked funds was made available to policyholders. Range of rider benefits has expanded significantly. Focus on protection products has improved, even though in India, Life Insurance is seen as a means of savings. For the first time, stand alone health insurance companies came into being and got established focusing on health insurance segment itself. Now, in the recent legislation health insurance is given a separate status. Today health insurance is the fastest growing segment in Indian Insurance driven primarily by public demand. In general insurance industry, health segment is only after motor segment. Motor insurance is driven by the statutory compulsion to take motor third party liability. Products being offered have changed, distribution landscape has changed.

When we look at the expenses of insurance companies and the criticism about distribution costs, commission costs, how much commission can be paid, it is the duty of the regulator to look into each aspect of it. In the product design / pricing where there is a dysfunctional element

to it or if there is a dysfunctional element in the insurance company's working, the regulator has to get it in the right track. Reports of government appointed committees, the intellectual debate, discussions on various financial savings products have an influence on the regulation making process. Life insurers generally highlight huge distribution cost involved. However, we observe that commission that is paid to distributors is less than 5% but the operating expenses incurred are more than three times of the commission paid. Any excess expenditure would affect policyholders directly and they may not get fair deal. It is not just the commission that is the reason but somewhere the industry is spending too much. We need to identify the 'too much' and actuaries are expected to look into the aspect of where the money is going.

In managing savings portion of policyholders' monies, we are the trustees. We handle the money with responsibility and manage costs to give best possible return. When management costs eat away very heavily, naturally the returns to the customers are limited. When product regulations were notified in 2013, lot of products got modified. Savings based life insurance products are usually examined by regulator to arrive at the internal rate of return offered by the product, say 4%. We need to continuously review whether the products offered live up to the expectations they have set when the products were filed and approved by the regulator. We cannot wait till the maturity of with profits products for review but every annual actuarial valuation exercise needs to consider product capacity and corresponding asset shares. Regulator would be looking into these aspects more keenly to take necessary action where things are not in the right direction.

Managing with profits life insurance business is complex. It is expected that the mandatory 'with profit committee' would ensure that there is no undue burden on with profit

policyholders. This is particularly important given the fact that when savings products under unit linked platform, which constitute around 40% of new business these days in some segments, are operating at a reduction in yield margin of 2.5% why other savings products cannot operate at comparable margins. We need to ensure that all the customers are treated in an equitable manner. Regulator would be closely examining the issue and support from senior actuaries as to how to go about it would be appreciated. Non-participating savings products are better placed because benefits are usually guaranteed in absolute amounts and the situation is more transparent when compared with participating products. It is critical to make companies, company boards, shareholders to be aware of how that company is performing. We would like to see the person who is putting in the money to understand how the company is performing.

Regulations in making have generated a lot of debate. Though regulations on critical aspects such as expenses of management and solvency would most likely be notified by March nevertheless the direction is very clear, we have to get a better deal for the customers. Protection element in the insurance products has to be focussed. Savings based products have to be treated in a way that they are more or less able to compete with other savings products available in the market. Though, it is usual for an insurance product to have surrender penalties to encourage people to continue with the product we need to balance the customer needs and this cannot be approached as a source of profits.

Insurance industry is supported by the government so that long term savings could be channelized to nation building through long term investments. Indian insurance industry is managing around Rs. 25 lakh crore of investments which is solely due to the commitment to the customers and trust of the customers. Trust is something

which has to be renewed every year in the light technology and social changes. Actuaries have got a great responsibility to ensure that industry diligently perform the role of trustees, with all technological changes and product changes, IFRS, Solvency II and other changes to happen.

Regulatory changes in the distribution space facilitates opening up of bank assurance for multiple insurers, even corporate agents could engage with three insurers. Banks are encouraged to become insurance brokers. Simple products are encouraged with simplified distribution channel of 'point of sale persons' with enabling guidelines in place. Local entrepreneurship was facilitated to come up and distribute the insurance products through insurance marketing firms. Sale of micro insurance products and other designated products through customer service centre (CSC) network and banking correspondents has started. With these changes, it is expected that the industry would progress further.

Insurance repositories were introduced in the market to maintain insurance policies in electronic form. We observe that the issue of loss of privacy or unauthorised use of data are highlighted on the matter. In this regard, it is necessary to understand the fact that India is moving towards centralised KYC register. Unique identifications such as Aadhar number, pan card number etc are taken to centralised registries established for the purpose of KYC compliance. It is endeavoured to make available means to hold all the financial assets of the person, the bank deposit, mutual funds, insurance, pension, bonds etc in a common repository. Open architecture created under 'iTrex - Insurance Transactions Exchange', could be driving the next phase of the industry growth. Once iTrex is fully operational, companies would not be required to make elaborate efforts to get customer's identity data. This will be a key step for spreading the message of insurance across 127 crore people in India. If we have to reach the corners of the country, technology is the only way. The role of actuaries in designing

suitable insurance products in such an environment would be critical in developing cost effective solutions.

Customer grievances need to be attended by insurers with due focus. IRDAI has put in place the Integrated Grievance Management System where customer can file grievances. It is observed that mis-selling complaints have come down which were dominating the system earlier. Insurance companies have started showing more responsibility towards their customers, more responsibility towards how their customer is reached, how the products are distributed and this addresses the interests of the customers, company and other stakeholders. In short, we need to keep the customers in focus, design the product that is relevant for them, relevant for the general market environment, offer with right type of technology, and promptly address their grievances. It is expected that the deliberations in the conference keeps only one person in fore front, the customer, and considering ourselves as trustees of customers' monies.



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PLENARY SESSIONS

Organized by
Institute of Actuaries of India

Venue
Renaissance Mumbai Convention
Centre Hotel, Powai, Mumbai

Date
1st - 2nd February, 2016

Session 1: Inaugural Session

Chairperson: Mr. Dilip Chakraborty, Chairperson, 18th GCA Organising Group

Speakers: Mr. Thomas Mathew, MD & CEO, RGA Services India; Mr. Rajesh Dalmia, President, IAI; Mr. Bob Miccolis, Board Chair / Past President, CAS, USA; Mr. Allan O'Bryant, EVP & Head of Asia, RGA; Mr. T S Vijayan, Chairman, IRDAI, India



Dilip Chakraborty

Mr. Dilip Chakraborty welcomed the gathering of 726 participants including 39 overseas participants. He began by stating that unlike previous years, there is no theme for the 18th GCA which leaves the floor open to open-ended and productive discussions.



Thomas Mathew

Mr. Thomas Mathew started his session by talking about the close association between RGA and the IAI. He emphasized that the GCA is truly a global event. He went on to speak about the developments taking place in the Indian market. He mentioned that the protection gap in India is being bridged; the regulations governing the industry are evolving; new fields such as data analytics offer exciting opportunities to improve upon the value propositions being offered to the customers. In closing he welcomed all delegates to the conference.



Rajesh Dalmia

Mr. Rajesh Dalmia spoke about the steps taken by the IAI to strengthen the actuarial profession in India. He mentioned the clarification issued by IAI regarding the Actuaries Act 2006; the improvements made to the professionalism standards; the technological enhancements made to the declaration of actuarial examination results; to name a few. Mr. Dalmia stressed on the demand-supply gap in the actuarial profession. He stated that there are only 70,000 qualified actuaries globally resulting in a huge shortfall in supply. He announced that the IAI has entered into a mutual recognition agreement with the CAS, USA and has also setup a working group for analytics and data sciences. He urged the industry to

increase jobs at entry level and work towards bridging the demand-supply gap at senior levels.



Bob Miccolis

Mr. Bob Miccolis provided further information about the mutual recognition agreement with CAS, USA. He also mentioned about CAS's keenness to explore further collaboration opportunities with IAI for actuarial education and training. Mr. Dilip Chakraborty added that the Society of Actuaries is also looking to setup some collaboration with IAI.



Allan O'Bryant

Mr. Allan O'Bryant gave a quick snapshot of the global trends in life insurance industry highlighting the contrasting growth stories across the world. Europe is going through centralization and inward focus with impending regulatory changes; Asia is looking at rapid growth, while the US is struggling for growth. He also explained the implications of these

developments. Summarizing the developments for India, he stated regulatory emphasis on policyholder protection, product changes with greater focus on protection products, challenges faced by traditional distribution channels, focus on digital technology, among others.



T S Vijayan

Mr. T S Vijayan talked about the history of the Indian insurance sector dating back to promulgation of the Insurance Act, setting up of the LIC and recent amendments to the Act which has widened the scope of the regulator. In the past two years, a slew of regulations have been rolled out addressing a range of issues in consultation with the industry. Industry registered positive but still a low growth rate in FY2014-15. Among the key focus areas of the regulator, he spoke about developing simplified and customer-centric products, control over management expenses, review of commission structure, innovations in distribution, effective management of with-profits business, among others. He highlighted that savings products will have to compete with those offered by other financial institutions, while pushing for insurance focusing on meeting the protection needs of the people. He also noted that cases of mis-selling and customer grievances have come down recently.



Sanjeeb Kumar

Mr. Sanjeeb Kumar presented the vote of thanks expressing gratitude to the speakers, delegates and sponsors of the conference.

Session 2: Current Topics – Current Issues related to the International Profession & Industry; Macro trends in Asia influencing Life product strategies; Bancassurance, Insurance Penetration and Density in India and the related Investment aspects; and Current Issues in Pension

Chairperson: Ms. Fiona Morrison, President, Institute and Faculty of Actuaries, UK

Speakers: Ms. Fiona Morrison, President, Institute and Faculty of Actuaries, UK; **Mr. Raju Seetharaman**, Chief Actuary, RGA Services India, India; **Mr. Mohan V Tanksale**, Chief Executive, Indian Bankers Association (IBA), India; and **Mr. Carl Hansen**, Executive Director, Abelica Group, USA



Fiona Morrison

Ms. Fiona Morrison complimented the GCA for providing a huge forum to the actuaries to contribute to the profession, promote and showcase their skills set and exhibit diverse areas they can work in. In her introductory note she highlighted the importance of volunteering in the actuarial profession to give back to the society to ensure long term relevance and sustainability and also shared a few anecdotes. As per an estimate provided by the Bank of England, volunteering accounts for an estimated £50 billion addition to the economy per year. She explained how volunteering played a key role in implementation of the Certified Actuarial Analyst (CAA) qualification in areas of research, drafting of study material and examination questions, conducting interviews with

experts, among others. She stressed that volunteering gives a fulfilling feeling and at the same time throws open opportunities of creating new contacts and developing new skills. She also talked about the importance of balancing personal and professional life.

Ms. Morrison opened the floor for other speakers by briefing the audience about their background and topics they are going to discuss.

Mr. Raju Seetharaman started his session discussing various value measures which serve as key performance indicator (KPI) for an insurer and capital measures which are important considerations for product risk management. There is widening protection gap, competition from banking and mutual funds sectors, and demand for less complex products and greater transparency by the customers which need to be factored in product development. He also spoke about changing distribution strategies making use of the modern technology, product customization, market segmentation and regulatory influence on distribution costs. Bringing everything together, he explained what these developments meant for the business as well as their impact on various types of products. He mentioned that insurers are now reviewing their savings and investment propositions, reducing the investment guarantees and increasing insurance guarantees, enriching protection benefits by bundling in critical illness, wellness and other benefits. To conclude he noted that use of big data, technological innovation and digital platform will shape product strategies; and concerted focus on product development and risk management will be essential.



Raju Seetharaman



Mohan V Tanksale

Mr. Mohan V Tanksale began his session underlining the long association of banking and insurance industry through joint ventures. He gave a quick insight into the banking industry of India noting that there are 207 scheduled banks, 1.26 lakh bank branches, 120 crore savings bank accounts, bank deposits amounting to 91 lakh crores and credits of 68 lakh crores which is an insurable asset and opportunity for life insurers. He highlighted the rich demographic dividend, however low insurance penetration and density in the country and drew a comparison with the BRIC nations. He also gave a snapshot of the size of bancassurance business in India. He highlighted the huge success of PMJJBY scheme in such a short span of time and the opportunities it puts forward in terms of big data to leverage cross selling. In his final notes, he highlighted the key challenges and the way forward – Actuaries to provide acceptable products, better persistency through improved selling, product innovations using technologies to improve penetration and the efficient use of capital inflows into the sector.



Carl Hansen

Mr. Carl Hansen raised the contemporary key issues facing the Pensions industry. He began his presentation discussing various sources available for retirement income. In his engaging talk, he gave insights into the key aspects shaping the current environment for the

sector including government austerity measures, volatile investment returns, low interest rate environment in the developed nations especially in the Europe and North America, and shifting demographics across nations. For each of these aspects he explained the impact on pension providers as well as the members using interesting graphics. For example, low interest rates would mean greater liabilities owing to discounting at lower rates while lesser annuity incomes. To conclude, he listed out some actions taken by the employers to address the dynamic risk environment as well as opportunities for actuaries to play a key role which include assessing the nature of liabilities, educating the masses, maintaining high standards of professionalism to ensure long term sustainability of the pensions sector, amongst others.

Session 3: Financial Inclusion through Banking & Insurance in India; and The use of expert judgement in actuarial forecasting

Chairperson: Mr. M Karunanidhi, Deputy Managing Director, RGA Services, India

Speakers: Dr. Achintan Bhattacharya, Director, NIBM India; and Mr. Gavin R. Maistry, Chief Actuary and CRO, Munich Re. LAPAC region, Singapore



M Karunanidhi

Mr. M Karunanidhi kicked off the session by giving a brief about the presenters as well as the sessions being presented.

Dr. Achintan Bhattacharya spoke at length about how banking and insurance can contribute to financial inclusion in India. He explained the need for financial inclusion in India highlighting the economic disparities, savings and expenditures patterns of rural and urban India. He talked about how banking architecture can be leveraged in bridging these disparities and listed out the government

initiatives including the Jan Dhan Yojana, RuPay debit cards etc. aimed at achieving financial inclusion.



Achintan Bhattacharya

Speaking on role of insurance and pensions, he pointed out the low penetration in low income sectors and threw light on government schemes in areas of micro insurance, crop insurance, pensions and healthcare targeted at comprehensive financial inclusion. To conclude he enumerated stable and driven political leadership, positive macro-economic indicators, demographic dividend, technological advancement and other factors as key drivers of financial inclusion in India.



Gavin R. Maistry

Mr. Gavin R. Maistry took the audience through use of expert judgement in actuarial forecasting illustrating the need for long term forecasting associated with actuarial work and giving historical examples where actuaries have failed to do so accurately. He explained different philosophies associated with judgement and decision making including rational decision making (RDM), Heuristics and Biases (HB), Fast & Frugal Heuristics (FFH) and Naturalistic Decision Making (NDM) listing out key features as well as limitations of each of the ideologies. Actuaries have to make complex forecasts which cannot be solely based on mechanical analysis of data and models. Actuarial forecasting involves dealing with uncertainty and

incomplete information and hence the reliance on their professional judgement. He concluded his talk noting that actuarial forecasting has to be a blended approach involving analytics, experience and judgement.

Session 4: Insurance regulations – Solvency II; Regulatory Issues; and Actuarial Modernisation – An Introduction

Chairperson: Mr. M M Chitale, Partner, Mukund M Chitale & Co, India

Speakers: Mr. Nick Kitching, CRO of Swiss Re Europe S.A and Head of EMEA Regulatory Risk Management, Swiss Re, UK; Ms. Pournima Gupte, Member (Actuary), IRDAI, India; Mr. Darryl Wagner, Partner, Deloitte, USA



Mukund M. Chitale

Mr. M M Chitale initiated the session by introducing the gathering to the presenters and gave a brief idea of the sessions to be covered.



Nick Kitching

Mr. Nick Kitching gave an overview of the Solvency II regime in the Europe. He started with talking about key elements of the regime and highlighted the three “star players” of Solvency II – Internal models approved by the regulator, Own Risk and Solvency Assessment (ORSA)

and Group supervision. Mr. Kitching also gave a quick glimpse into the roadmap of the regime spanning from 2004 to 2016. He demonstrated the impact of moving into Solvency II on insurers across Europe using solvency ratios; and described the derivation of discount curve and other adjustments to address long term guarantees under the new regime. After briefly listing out the benefits and challenges associated with using internal models, he specified the other key challenges for the regime associated with use of risk free rates, reporting requirements, long term investments, amongst others. To conclude his session, he spoke about the key milestones ahead and learnings from the development phase.



Pournima Gupte

Ms. Pournima Gupte discussed the issues noted by the regulator for the sector. For non-life sector, she talked about the lack of a full-fledged actuarial department in most of the companies coupled with limited role of actuaries in reserves calculation. She spoke about the steps taken by the regulator to meet this shortage – mutual recognition agreement signed with CAS, relaxation in restrictions to work as non-life actuary, among others. She also stressed on the importance to increase intake of actuarial students. For life sector, she noted that there is a greater actuarial involvement compared to its counterpart. She highlighted supervision of with-profit business, fair product pricing, appropriate disclosure, etc. as the key concerns of the regulator. There has been a rise in non-linked non-profit savings business leading to greater guarantees in the portfolio. She emphasized on timely submission of accurate returns consistent with audited results.



Darryl Wagner

Mr. Darryl Wagner spoke on actuarial modernisation discussing the concept, vision and goals of actuarial modernisation. He highlighted the internal as well as external developments which necessitate this. He also listed out the key issues in achieving actuarial modernisation involving technology, processes, data & reporting and governance; while stating that an integrated approach with a long term view will be needed. He explained the advantages of actuarial modernisation in achieving efficiency, effectiveness, greater controls and better talent management. He also stressed on areas where actuaries should devote their time, essentially shifting the focus from operational to strategic fronts. He concluded his talk mapping out project-based roadmap for implementation of actuarial modernisation.

meet the author



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Concurrent sessions on Life Insurance

Organized by
Institute of Actuaries of India

Venue
Renaissance Mumbai Convention
Centre Hotel, Mumbai

Date
1st - 2nd February, 2016

Whether we are student actuaries or qualified or those who take active interest in insurance or the actuarial profession, the Annual Global Conference of Actuaries (GCA) offers us an opportunity to deepen our expertise and become more efficient at work.

Especially for those working in the field of life insurance, the concurrent sessions on life insurance present an ocean of information on many relevant topics. This year's sessions were no different.

Five well organized sessions covered a wide spectrum of topics in two days.

Session Highlights:

The discussions in the session took direct reference from the Appointed Actuary Regulation and other regulations around products and actuarial reporting.



Sanjeeb Kumar

Mr. Sanjeeb Kumar started the discussion by drawing everyone's attention to the fact that the Appointed Actuary designation is given by the Regulator.

Using couple of sample certifications from the Appointed Actuary around new or modified products and Net Asset Value, he tried to set the context of his subsequent presentation.

Highlighting the challenges in setting the long term expense assumptions used in product pricing & other financial projections, he indicated towards the low confidence in the best estimate level due to changing expectations on the timing of the expense break even for many companies in the life insurance industry. He concluded by raising a genuine question on the reliability of using current mortality table to price insurance for next 20 years due to high early claims impacting the assumption setting.



Sunil Sharma

Mr. Sunil Sharma discussed the issues related to linked and non-linked products. He based his presentation on IRDAI product regulation, 2013. His presentation was split into two parts – one covering the issues pertaining to the linked products and the other related to the non-linked products.



Satyan Jambunathan

The final part of the session was presented by **Mr. Satyan Jambunathan**, whose thought provoking speech around responsibilities and challenges in Appointed Actuary role was well received by the audience. While talking about responsibilities, he covered areas like Appointed Actuary certification around reserve adequacy, meeting Policyholders' Reasonable Expectation (PRE) and ensuring solvency at all point in time. While speaking on challenges in Appointed Actuary's role he covered few very pertinent points:

Session 1: The Appointed Actuaries Session

Chairperson: Mr. Sanjeeb Kumar, Director Actuarial & Appointed Actuary, Aviva Life Insurance Co India Ltd.

Speakers: Mr. Sunil Sharma, Appointed Actuary, Kotak Mahindra Old Mutual Life Insurance Ltd and Mr. Satyan Jambunathan, Appointed Actuary, ICICI Prulife.

Brief about the session:

Mr. Sanjeeb Kumar introduced the panel and set the background of the subsequent presentations of the session.

This was followed by **Mr. Sunil Sharma** and **Mr. Satyan Jambunathan** taking the dais in turn discussing their views around the duties and obligations brought into the role of an Appointed Actuary by IRDAI while bestowing this designation.

- **PRE** – difficult to ensure this within the current narrow governance mechanism
- **Communication within organization** – easy to fall in trap while speaking with more knowledgeable parties
- **Uncertainty in setting assumptions** – volatile growth environment and need for industry-wide analyses of experience
- **Regulatory developments** – need capability creation around RBC, IFRS

Drawing reference from various sections of the regulation, all the speakers shared their common views around Issues faced while designing and pricing a profitable product due to the requirements of meeting many restrictions and conditions.

Summary of Session:

The speakers made several suggestions on the concern areas within IRDAI Product Regulation and mentioned that these, if allowed or considered can reduce some of the issues in product pricing.

Even with all the right intention, it is doubtful to sometimes to make absolute statements like reserve adequacy at all time, it was also commented that we may not have clear understanding of PRE but still need to frame our views.

The requirement of level playing fields of life and general insurance companies in case of personal accident and critical illness was also highlighted in the session.

The session witnessed few interesting observations from the audience. Mr. Shriram Mulgund commented on the perceived challenges in Appointed Actuary role and stressed upon the importance of this role from the perspective of the Regulator.

In answering questions around proper communication with the Management of a Company regarding PRE, speakers highlighted the importance of first understanding Management's intent around PRE before working out a way to address any issue.

Session 2: Products – Life Insurance Valuation

Chairperson: Ms. Pournima Gupte, Member Acturay, IRDA India.

Speakers: Mr. S P Chakraborty, Joint Director – Actuarial product (Life, Non Life and Health) and **Mr. Sudipta Bhattacharya**, Deputy Director (Actuarial Valuation) from IRDA, India.

Brief about the session:



Pournima Gupte

Ms. Pournima Gupte started the session in a lighter note by shifting the attention of the audience from the insurer's viewpoints to those of the Regulator. It is possibly these reasons of providing audience the opportunity to be a part of arguments and counter view of arguments in such a diverse way, the concurrent sessions have become a must-attend for all of us. She then introduced the panel to the audience.

The other speakers then presented Regulator's viewpoints about the trends in product filing, File & Use application and product clearance and also around various regulatory changes with respect to life insurance valuation, actuarial report and abstract.

Session Highlights:



S P Chakraborty

Mr. S P Chakraborty talked about the consistent trend in non-linked product categories with endowment being the major variant, as well as an increased tendency in health insurance to file

standalone specialized products like cancer care.

Apart from trying to comply with the regulations, objectivity in pricing, fair treatment of policyholders, transparency in product filing and quick communication between Insurers and Regulator can make the process more efficient.

According to him, it is the interpretation, which usually dictates the applicability of any regulation – for a policy providing Rs. 10 lakhs of death benefit or Rs. 10 lakhs of critical illness benefit, applicable regulation may depend on whether the product is perceived as a health product with savings element or a savings product with health element.

The final part of the session was around various regulatory changes with respect to life insurance valuation and solvency margin and was covered by **Mr. Sudipta Bhattacharya**.



Sudipta Bhattacharya

He started with the background of these regulations and also touched upon Insurance Law Amendment Act 2015 and the process IRDAI followed in reviewing the regulations against the amendments.

He also discussed the major changes in Actuarial Report and Abstract Regulation covering areas like submission timeline, transparency, introduction of new forms and definitions and also talked about some changes brought to make regulation more specific.

Summary of Session:

While emphasizing the fact that regulation is a continuous process, Ms. Pournima Gupte mentioned about the formation of committees by IRDAI to review various regulations with participation from actuarial community. She did also mention that Industry wide comments and suggestions will be considered duly by the Regulator.

Concurring with the views expressed in the previous session, speakers in this session also highlighted the dual responsibility of the Appointed Actuaries from the Organization and the Regulator's perspective.

While considering dynamic customer needs, insurance industry is embracing product innovation, bringing standardized products, targeting new markets, serious thoughts are also continuously given around efficient expense management.

Session 3: session around data and analytics

Chairperson: Mr. Sanjeev Pujari, Executive Director – Actuarial & Risk Management and Chief Risk Officer, SBI Life Insurance Co. Ltd.

Speakers: Mr. Frank Ashe, Owner, Quantitative Strategies, Australia and Mr. Ankur Agarwal, Head-Actuarial function, AXA Business Services Pvt. Ltd., India.

Brief about the session:



Sanjeev Pujari

Mr. Sanjeev Pujari introduced the panel and set the context of the subsequent discussion which focused on the use of advanced data analytics. The other panel members further discussed about the uncertainties in determining capital and applicability of data science in life insurance.

Session Highlights:

While introducing the topic to the audience, Mr. Sanjeev Pujari briefly mentioned about some of the areas of importance in current scenario like use of analytics to understand customer's propensity to buy, applying predictive underwriting in place of traditional approach and also fraud monitoring.



Frank Ashe

Taking up the discussion to a next level, **Mr. Frank Ashe** presented a philosophical approach of looking at uncertainties in determining capital. He gave insight to the fundamental problem of getting into an unknown from the boundary of the knowledge we hold.

While talking about decision making on economic capital within an Organization, he referred to the 4 I's model for considering risk. He also discussed the different sources of uncertainty in deciding regulatory capital within a competitive and cooperative framework.

Some ideas refuse to die, experts can be wrong, regulatory requirements may not be sensible from operational perspective – he concluded with an important message that we probably don't know what we are doing, but at least doing our best.



Ankur Agarwal

Continuing with the flow of the session, **Mr. Ankur Agarwal** discussed the importance of data science in life insurance.

Defining the data science as a way to mine insights from data, he shared a number of examples around its application in life insurance, e.g. predictive underwriting, agent analysis, cycle time reduction in policy issuance and fraud management.

While people understand the importance, the implementation challenges restricted its use significantly. To make it work, according to him, a structured approach with right resource, adequate infrastructure and business ownership is required.

Through a case study around underwriting optimization, he then highlighted how a successful use of data analytics made underwriting decision making faster with improved risk identification.

Summary of Session:

While within the ever changing business environment, digital revolution and "Big Data" have taken center stage, the life insurers have been a late starter to adopt it.

The hunger for data driven insights is on the rise and data science is going beyond the traditional pricing and valuation, for which we need to prepare.

The discussions followed by few interesting round of questions and answers. In responding to a question on the cost vs. benefit of adopting data science, the panel members highlighted the importance of having a strategic priority with long term investment from the Organizations. Another question was raised on the anticipated timeline. **Mr. Ankur** indicated that the process is evolving and is moving in the right direction, but it would be premature to comment on the timeline.

Day: 02.02.2016

Session 4: Developments on reserving, solvency and risk management in various life insurance markets, with the objective of providing a wider view of the different stages of development of reporting standards in international actuarial markets.

Chairperson: Mr. Rajesh Dalmia, President of the IAI.

Speakers: Mr. Chua Tuan Miang, Regional General Manager, Life/Health Asia, General Reinsurance and Ms. Janine R. Mazi, Director, AIG, USA

Brief about the session:



Rajesh Dalmia

After a brief introduction of the session and speakers by **Mr. Rajesh Dalmia**, the session kicked off with



Chua Tuan Miang

Mr. Miang's informative presentation on "Solvency and risk management – development in Asia". The presentation covered the ongoing move to risk-based solvency frameworks in Asian actuarial markets, with special focus on China, Japan, Singapore and Hong Kong.



Janine R. Manzi

Ms. Manzi, in her session gave an overview of the advent of principle based reserving in the United States market, as against the relatively more formulaic current practice.

Session Highlights:

Insurance markets in Asia have continued to move towards a risk-based solvency framework, with the earliest being Japan in 1999 and the latest being China in 2016. China has seen swift progress on the China

Risk Oriented Solvency Framework (CROSS), from conceptualization in 2012 to full implementation in March 2016. The three pillared risk based framework is a step away from the previous factor based scale oriented approach to calculating capital requirements using premiums and claims. Different forms of capital have been introduced to meet the expected increase in capital requirements under CROSS.

In Japan, risk based capital requirements aligned with that of the United States were introduced in 1996. Shortly afterwards, in the difficult economic environment, there was a series of 6 insolvencies between 1999 and 2001. The regulator now has an early warning mechanism in place where it monitors selected indicators of insurance companies in terms of profitability and risk management (credit, market and liquidity). Mandated public disclosures require each component of the solvency margin to be disclosed separately.

Singapore is set to adopt RBC2 in 2017 which is expected to potentially increase capital requirements compared to the prevalent RBC framework. Hong Kong presently follows a simplistic factor based capital requirements approach like India. The market is in the midst of Quantitative Impact Studies and is expected to implement RBC in 2018. Most markets also have some form of Own Risk and Solvency Assessment apart from the regulatory reporting.

Mr. Miang emphasized that the key features of new solvency frameworks is that these are based on principles, not rules. There is an overall larger emphasis on risk at an organizational level, as solvency requirements are more driven by and more sensitive to risk. Balance sheets and asset liability interaction are more market linked. To align with the new regimes, companies not only need to invest more in infrastructure and enhance risk management systems, but also are seen to realign product strategy (particularly with regard to interest sensitive products) and investment strategy. A review of capital allocation

structure, higher use of reinsurance and risk transfer mechanisms may also be warranted under a new reporting regime.

Continuing on the theme of principle based actuarial methods, Ms. Janine' spoke about how the United States is now moving to principle based reserving (PBR). For traditional life products, statutory reserves are calculated using a net premium approach at prescribed assumptions. Under PBR, reserves will be taken as the highest of NPV, deterministic reserve (similar to GPR) and stochastic reserve (similar to GPR determined under a range of scenarios), with due regard to the company's experience in setting assumptions. Consequently, this will place more reliance on the Actuary's judgment in setting assumptions and certifying reserve adequacy at all times, a feature already prevalent in several other markets. As with any reporting change, however, this change is also expected to bring challenges such as setting up / developing internal models and audit methods. Notably, PBR will only apply to new products after implementation (expected in 2017) necessitating an additional level of reporting.

Summary of Session:

Actuarial markets across the world are constantly evolving and moving to frameworks which are more risk aligned. From a regulatory perspective, any move to an alternative / more evolved framework, should be well thought out and have regard to the specific stage of development of the market and appropriate impact assessments. Companies, on their part (with or without a risk based framework), should start taking an independent view of risks inherent in the business, and in particular the sensitivity of the balance sheet to risk factors. Discussions on the move to a risk-based capital framework in India have been initiated hence it may be useful to analyze the experiences of other markets to develop a robust framework appropriate to the Indian market, as well as prepare for the additional investments and response strategy that may be required from stakeholders.

Session 5: Managing interest rate risk in a falling interest rate environment.

Chairperson: Mr. Shriram Mulgund, Actuary, Canada.

Speakers: A team of three from Max Life – Mr. Sachin Saxena, Senior Vice President - Product Solutions Management, Mr. Sandeep Kher, Executive Vice President and Chief Risk Officer and Mr. Ashish Taneja, Assistant Vice President - Product Solutions Management, Mr. A K Sridhar, Director and Chief Investment Officer, India First Life Insurance Co. Ltd.

practical constraints in implementing derivative trades for insurers and the importance of ongoing monitoring after the trades are executed. He concluded the session with the view that the complexity notwithstanding, derivative trades provide several benefits and may no longer just be an option for companies as the size of the non-par book increases.

The next session by **Mr. Sridhar** opened with the question “Are Long Term Insurance Products ‘In Sync’ with the Trend?”, the trend referring to interest rates. The presentation discussed the various phases of the Indian economy, a comparison of long term interest rate trends

team decided to look at derivatives as a risk management tool. They emphasized that execution of the 6 trades the company has completed involved a thorough process of analysis and active engagement with internal and external parties. The journey although involved several challenges such as limited availability of derivative instruments, lack of internal and external expertise, operational complexities, accounting treatment among others.

From a technical perspective, it is important to structure the swap arrangement appropriately. Derivative arrangements also need to be incorporated in product



(From Left) A K Sridhar, Ashish Taneja, Shriram Mulgund, Sachin Saxena, Sandeep Kher

Brief about the session:

After **Mr. Mulgund** set the context of the session in the current economic and industry environment, the Max Life team started the presentation titled “Challenges and Opportunities of Investing in Derivatives”.

Mr. Saxena laid out the background in terms of the product and regulatory landscape paving the way for derivative investments, followed by **Mr. Taneja** focusing on the more technical aspects such as allowing for interest rate swaps in product pricing, structuring the swap arrangement, impact on shareholder outcomes and testing for over-hedging. **Mr. Kher** discussed the

in different world economies and the likely governing factors for future interest rate movements. The speaker concluded with his forecasts of medium and long term interest rates, linking with different growth scenarios and discussed implications and the way ahead for life insurers.

Session Highlights:

The Max Life team gave a good overall view of the context, challenges and opportunities in derivative investments based on their own experience. The team discussed how there was intense deliberation on the viability of long term guaranteed non-par products in a declining interest rate environment and possible regulatory interventions, before the

pricing. Over-hedging must be eliminated as regulations only permit underlying cashflows to be hedged (no speculative hedging); this can be achieved by hedging less than 100% proportion of business based on the level of certainty in persistency assumptions. Equally important is the need to monitor risk post implementation of the derivative. Apart from the obvious benefit of hedging in full or part, the group highlighted other benefits such as competitive advantage in pricing, reducing earnings volatility and getting future ready for possible regulatory changes.

In the second presentation, while examining the generally low long

term interest rate trends in the developed economies, the speaker noted that while recent events do not raise any particular alarm as gilt yields have consolidated following interest rates cuts, overall India has been a volatile market with interest rates going up and down over a range of 500 to 550 bps in the last 15 years. Market expectation of a sharp rally is subdued however a small rally of 30-50bps cannot be ruled out in short term (3 to 4 months). He concluded his forecasts of interest rates in the medium and long term based on different scenarios of growth for the economy, with the overall indication that if we continue the growth momentum as a developing economy, interest rates may come down by no more than 200-250bps over the long term (15-30 years) while if growth is accelerated and we move closer to developed economy trends, interest rates cuts could be steeper at even 450-500bps.

Translating this into risks for insurance companies, Mr. Sridhar emphasized that as the long term investment outlook is uncertain, companies may need to reduce vulnerability to interest rate changes by moving to protection based and floating rate products, reducing costs and using IRR to drive operational efficiency and avoid over dependence on persistency for profits and product viability.

Summary of Session:

The current product mix (which has a reasonable proportion of guaranteed interest rate products for long durations) and the falling interest rate environment has placed a lot of focus on managing reinvestment risk. While one can't rush into derivatives given all the complexities involved, it may become a vital risk management tool for guaranteed products. The medium term view on interest rates does not imply serious concerns given recent gilt yields trends however it is difficult to predict anything above a time horizon of 15-20 years with

any certainty. Over the longer term, the industry should look at promote protection products as well with the twin objective of increasing resilience to interest rate changes and boosting true insurance penetration.

All the sessions were concluded with a felicitation of the speakers and panel members.

Mr. Heerak Basu, Senior Vice President & Appointed Actuary, AIA India presented the vote of thanks expressing gratitude to the speakers, delegates, and sponsors of the conference. ■

meet the
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CONCURRENT SESSION ON GENERAL INSURANCE & HEALTH CARE INSURANCE

Organized by
Institute of Actuaries of India

Venue
Renaissance Convention
Center Hotel, Mumbai

Date
1st - 2nd February, 2016

Session 1: Appointed Actuary Session – Regulation and Product

Chairperson: Mr. Manalur Sandilya,
Consulting Actuary

Speakers: Mr. Anurag Rastogi,
Appointed Actuary and Head-
Motor and A&H, HDFC Ergo General
Insurance Co. Ltd., India and
Ms. Tania Chakraborty, Appointed
Actuary, Royal Sundaram Alliance
General Insurance Co. Ltd., India



Manalur Sandilya

Mr. Sandilya introduced the panel and gave a brief idea about the session and what both the speakers and he himself is going to present and discuss.



Anurag Rastogi

Mr. Rastogi's topic of presentation was "Challenges before GI Actuaries" and he discussed three major challenges namely Motor TP Reserves, Emerging Risks and Increasing Catastrophes. He started with the comparison of lower and

upper end of TP ULRs for erstwhile Motor TP Pools as prescribed by GAD, UK and the actual loss ratios for different underwriting years as at March 2015. Basis the data presented, it was clear that the ULRs which were considered too high few years back are now either breached or are at the verge of getting breached. He further talked about the uncertainty in calculating true reserves for TP business due to underlying trends in claims inflation (both earning and judicial) and benchmark judgements passed by honorable courts from time to time.

He further talked about some new type of risks which are emerging in the industry and the need of new products to cater these risks. He also talked about CSC channel and its presence across the country and the business potential that this channel can generate.

India recently has been hit by various CAT events which had made insurance industry suffers billion of rupees. There is a need of looking back at the return period assumptions under CAT models and the premium charged for various CAT events.

Digital world is a boon but at the same time can be risky. The digitization in India is increasing at unprecedented pace. The increase in e-commerce, use of mobile wallets, Autonomous cars and the use of drones in crop yield estimation are all examples of increased use of technology in the country and the insurance industry needs to keep pace with the technology.

Ms. Tania Chakraborty presented her topic with the help of two case studies namely "Contribution based retention discounting" and "Early Bird Offer". The theme of her



Tania Chakraborty

presentation was to **Share** (Leverage knowledge and approach that enables success), **Engage** (taking steps to better connect with the business) and **Collaborate** (Recognize that we can do our best work together).

The case studies were to showcase the approach that can be taken within the organization wherein different departments work together to achieve a common goal and take benefit from each other's experience and expertise.

Contribution retention discount (CRD) calculates a discount based on the amount of contribution within each policy and Early Bird offer is a non-price driven marketing campaign that incentivizes early renewal targeted at customers having higher than average lapse risk. Consumer behavior is changing with the increased competition and the availability of price comparison sites and practically there is a deal to be done at renewal plus they want some show of loyalty from their insurance provider.

The problem that CRD tries to solve is to prevent the policies going into negative contribution following discount made at renewal to retain the policyholder. Early bird offer tries to solve the issue of customers switching insurer at renewal and the need to get incentivized to remain with the same insurer. The methods

are flexible and can be updated periodically and targeted discounting enables to retain the most profitable customer but regulatory approval is required to set contribution and discount amount. Customers can be offered with various incentives (which are low cost for provider) if they renew early. The approach has to be on long term basis as the company needs to offer different incentives in different years. This also involves the selection of vulnerable, high value customers. The methods can be implemented by taking inputs from various teams like Actuarial, Underwriting, Marketing, Finance and Operations & IT and assigning ownership of required inputs.

The conclusion of the presentation was that we need to stop working in silos and start using collective insights from across teams and continue looking for pragmatic solutions.

Mr. Sandilya talked about three different issues namely Risk Transfer Testing, Moving to IND AS and IND AS 104. The topic was focused on whether the given insurance contract is actually transferring risk from insured to insurer or is just a financial arrangement between two parties.

Risk transfer can be tested by various methods like Historical "10-10" test, distribution test and obvious solutions. The transaction between insured and insurer should pass these tests to be eligible for insurance accounting.

IND AS has been implemented as per the requirements set by the Ministry of Corporate Affairs and the Insurance Regulator has a role to play in it. The role of actuaries is to develop frameworks for analyzing different situations and whether the situations to be analyzed are principle based or Rules based.

IND AS 104 requires unbundling of deposit components and is per the IRDAI circular of 2004. Typical situations where risk transfer does not happen is ART contracts or the contracts wherein the insured has to reimburse insurer in the future periods.

Session 2 - Wellness and Insurance: what we know, what we believe and what we should do next

Chairperson: Mr. Rajesh Dalmia, President, IAI

Speaker: Mr. Jonathan Hughes, Head of Strategic Development, RGA, UK.



Jonathan Hughes

Jonathan started his discussion with the definition of Wellness, how a customer perceives it and how an insurer sees it.

What we know in terms of Technology, Insurance and Human Nature.

Technology: Over the years, the number of devices to measure the human activity level and maintain wellness have increased manifolds and are expected to grow in future. Wearable devices and mobile health applications have shown unprecedented increase in usage.

Insurance: The most important aspect of insurance is data. But the way data was flowing and structured many years ago is quite different from the way it is today. Over the time, we have observed trends showing improvement in morbidity levels with the increased level of activity and difference in morbidity of physically active and inactive members. Positive & Interesting observations have been made regarding reduction in cardiovascular risk and reduction in cholesterol level and also how the number of steps taken by a person affects the mortality.

Human Nature: We humans talk a lot about ourselves and our activity level changes if we are having friends with wearable devices. 33% of the population on the planet is overweight are 63% deaths are due to non-communicable diseases.

What we believe Insurers can use people's interest in their wellness to create demand for insurance.

Specific devices will become obsolete and irrelevant in a very short period of time e.g. Maps to GPS devices to mobile apps. Insurance professionals are best placed to create compelling wellness propositions.

What next is acting based on the beliefs. Insurers need to understand own insights and make themselves accessible. We need to build skillset required to leverage resultant data. If insurers do not act, someone else like tech firms will act and take advantage and there is need to leverage actuarial skillset.

Session 3

Chairperson: Mr. Rajesh Dalmia, President, IAI, India

Speaker: Mr. Stefan König, Senior Actuary, Critical Illness R&D center, SCOR Global Life, Singapore. Mr. Bob Miccolis, Board Chair/Past President, CAS, USA



Stefan König

Mr. Stefan's topic of presentation was "**Trend Projections and the risk of guarantees for morbidity products**". He started the discussion with the data about share of various diseases in various morbidity products, wherein Cancer holds a significant share. He then discussed past observed trends of different types of cancers in different countries and how they have varied over time.

The presentation was research oriented and to perform quantitative analysis, Risk factor methodology was used.

The further discussion was done with the help of two quantitative modelling examples namely APC model for cancer and Impact of Screening Introduction.

APC Model: Though similar tools and methods can be used to project morbidity as for mortality, but there are constraints w.r.t. data which do not allow this completely. Often data is incomplete, not classified properly and not available in fine granularity.

Each condition has its own trend and underlying risk factors leading to fluctuations in the overall trends. The method was based on classical APC model:

$$f(R_{i,j}) = A_i + P_j + C_c$$

Stefan showed that how projections change with the use of different link function and drift. The model can be further improved by including external effects parameter e.g. screening.

Impact of Screening: The goal of screening is to detect cancer at earlier stage. Can we design products that benefits from screening introduction?

The research was cooperated by Erasmus Medical Centre and Model used was MISCAN-Fadia. He showed the impact of screening introduction using various graphs for differently aged population and then he compared the results from screening and non-screening.

He concluded the presentation with the remark “in the end the price for the rate guarantee might be similar to the price of the risk”



Bob Miccolis

Mr. Miccolis talked about IFRS phase 2 and Risk adjustments. Starting with the current situation of IFRS, he explained the Risk Adjustment (RA) and its measurement objective. Further, he discussed IAA monograph on Risk adjustments, its scope and purpose and planned structure of monograph.

He discussed underlying Principles and the basics of Risk adjustment. RA principles are based on 3 building blocks which are based on value and timing of the cash flows and adjustments to the estimate because of model, parameter and process error.

In estimating RA, key considerations will be Risk Identification, Assessment, Judgement and Calibration.

The discussion was concluded with the project timelines

Bob's another topic of discussion was “Current Trends in US Property-Casualty Insurance”.

He started the discussion with controversies over price optimization followed by the background of rate filing and approval by different states and how new technology is disrupting the simple models.

Criteria for Approval of US Insurance rates are that the rates shall not be Excessive, Inadequate and unfairly discriminatory.

Insurance is very price sensitive and the insurers in US have approved rates with the option to adjust prices. Some classes like Motor insurance is mandatory in US. There are serious discussions around the allowance of pricing based on price sensitivity. Actuaries are there in the center of controversy wherein they are responsible to take care of interests of all stakeholders.

Session 4

Chairperson: Ms. Pournima Gupte, Member Actuary, IRDAI

Speakers: Mr. S P Chakraborty, Joint Director, Actl-Product, (Life, NL & Health) IRDA, India, Mr. Pankaj Kumar Tewari, Deputy Director, Actl-Product, (Life, NL & Health) IRDA, India and Mr. Ritesh Kumar, CEO, HDFC Ergo, India.



S P Chakraborty

Mr. Chakraborty talked about recent trends in product filing, products preference by insurers like non-par over par, term with periodic payment option, non-linked with income benefits. There is an increasing trend to make health benefits inbuilt rather than offering as riders and specialized health products.

He further discussed F&U form and stressed on completeness and compliance with various Acts/

regulations before submission. The pricing should be objective and conditions in F&U form should be transparent and unambiguous and treating the policyholders fairly.

Recent developments by Authority includes standardization of OTC products to increase penetration and persistency. The insurers are showing interest in these products on both group and individual front.

Insurers need to have more innovative products to cater to dynamic needs of the customer and efficient expense management along with new & innovative distribution channels.



Pankaj Kumar Tewari

Mr. Tewari discussed IRDAI draft regulation on Asset, Liability & Solvency Margin for non-life companies including standalone health insurers. He gave a brief background of current ALSM provisions and how Insurance Law (Amendment) Act, 2015 led to the requirement of separate regulations for general insurers.

He further talked about the committee constituted by IRDAI who studied the markets, domestic and international and submit their report to Authority, on the basis of which IRDAI came out with the draft regulations. He further talked about the key features of the draft which includes Introduction of Board Level Technical Reserves Committee, board approved technical policy. He discussed inadmissible assets, calculation of UPR, URR, PDR and IBNR and the choices that AA has.

Mr. Ritesh Kumar discussed various opportunities and challenges for general insurance industry. He took the audience through the history of Indian general insurance industry and how it has evolved over the period involving privatization, detariffing and FDI in Insurance.



Ritesh Kumar

He discussed 3 opportunities for expansion of insurance:

- **Robust economic growth rate in the foreseeable future** – Strong correlation between economic growth and insurance growth offers significant opportunities.
- **Significant under penetration; Opportunities to take penetration from 0.7% to 1% of GDP** – low penetration of insurance in rural sector, high number of uninsured vehicles and insured losses in any CAT event is generally less than 10% are some of the indicators showing low penetration in India
- **Digitisation** – increases cost efficiencies, helps in big data analytics and in continuous customer engagement.

He also discussed 3 challenges which are faced by insurance industry:

- **Changing Risk landscape** – Changing lifestyle, cyber risk, electronic gadgets used in motor vehicles and increasing incidence of CAT events
- **Fraud** – this is the most significant challenge faced by insurance industry. Absence of clear legal framework, unregulated service providers like garages and hospitals, no data sharing at industry level, no limitations in TP claims; these all points lead to increased incidences of fraud.
- **Data and Data analytics – Limited availability of data**, non-mandatory KYC norms, data capturing limitations all limit the application of data analytics and actuarial involvement.

Session 5

Chairperson: Mr. N M Govardhan, Actuary and Former Chairman, LIC of India

Speakers: Mr. Mayur Ankolekar, Consulting Actuary, Ankolekar & Co., India, Mr. Vikram Jain, Actuarial Analyst, Swiss Re services India Pvt. Ltd., India and Arun Agarwal, Lloyd's general representative in India, Lloyd's.



N M Govardhan



Mayur Ankolekar

Mr. Mayur presented his research about performance of leading Indian insurers towards inclusion of rural and social sector. He started with the regulations laid down by IRDAI for mandatory business to be done by life and general insurance companies in rural and social sector. He stated his research assumptions and discussed the performance of 8 leading life and general insurers on the parameters set by IRDAI. All companies except a few were showing over achievement of targets. He raised a question - Is all well? He then talked about different statistics which can be used to actually measure the performance of insurers in these sectors. He talked about "Rural to Urban Average premium" statistic. On this statistic, almost all companies showed underperformance. The presentation was concluded with a remark – Are companies actually following the regulations in spirit or just by letter and whether rural and social inclusion is actually happening in the way it should be?



Vikram Jain

Mr. Vikram spoke on the topic – Does product innovation increase health insurance penetration?

He started with the current health penetration and compared the

same with other developed nations and raised the question about the sustainability in the current environment. He further talked about the changing demography and the government concerns about insurance in India.

He further talked about the market and various forces which result into lower penetration level. He stressed on the need of a concerted multi stakeholder effort to increase the penetration.



Arun Agarwal

Mr. Arun gave a complete overview of Lloyd's. He started with explaining about Lloyd's as marketplace and a center of Insurance expertise. He took the audience through the colourful history of Lloyd's and its current position.

He gave an overview of financial highlights of Lloyd's followed by the Lloyd's structure and its corporate governance. He then introduced the audience about the performance management at Lloyd's and the level of financial strength and security and the strong ratings given by various international rating agencies. ■

meet the
author



Vikas Garg

Mr. Vikas Garg is the fellow member of IAI and currently working as Actuarial head with Liberty Videocon General Insurance Co. Ltd.

2016 AGFA PHOTO

FELLOWSHIP BEING AWARDED DURING 2016 AGFA AT THE HANDS OF MR. RAJESH DALMIA, PRESIDENT, IAI



Ramanuj Bhangdiya



Aditya Bathiya



Ankur Saraf



Malvika Nath



Vandana Baluni



Chinnaraja Pandian



Pawan Kumar Sharma



Prasun Kumar Sarkar



Sanghmitra Dey



Vineet Khanna



Abhishek Patodi



Gopal Kumar



Manalur Sandilya



Khushboo Hamirbasia



Priyank Gupta



Nakul Yadav

ASSOCIATESHIP BEING AWARDED DURING 2016 AGFA AT THE HANDS OF MR. SANJEEB KUMAR, VICE-PRESIDENT, IAI



S Sabareesh



Deepak B V



Richa Mathur



Neha Birla



Anupam Biswas



Kanchan Goel



Harvinder Kaur



Jinal Sheth



PHOTO FEATURE

18th Global Conference of ACTUARIES
Renaissance Mumbai Convention Centre Hotel,
1-2 February 2016, Mumbai, India.

2016 ACTUARIAL GALA FUNCTION AND AWARDS



Raj Chaurasia



A V Karthikeyan



Shruti Saxena



Ishwar Gopashetti



Yogita Rawat



Neha Patodia



Hemant Kumar



Keyur Parekh



Rahul Khandelwal



Vaibhav Tyagi



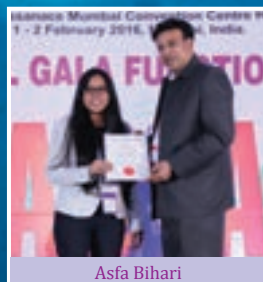
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Jenil Shah



Anupam Biswas



Asfa Bihari



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Prasun Kumar Sarkar



Kamal Sidhu



Arunima Sinha



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2016 Actuarial Gala Function and Awards (AGFA)

Organized by
Institute of Actuaries of India

Venue
Renaissance Mumbai Convention
Centre Hotel, Mumbai

Date
1st February 2016

The Actuarial Gala Function and Awards (AGFA) is an annual event organized by the Institute of Actuaries of India. It was first held in 2010 and has been happening every year since then. The event brings together members of the actuarial profession and aims to recognize the academic achievements and qualification milestones in the field of Actuarial Science. The 2016 AGFA event was a fun filled event with multiple dance performances and signified the growth of actuarial profession in India.

The event started with an introductory speech given by **Mr. Rajesh Dalmia**, President - IAI, India. He highlighted that this was his last AGFA as the President of the Institute. He reminisced how AGFA was first started in 2010 by the then President of the Institute and has since then grown into an annual event symbolic of the growing Actuarial profession in India. He congratulated all award winners, especially the newly qualified fellows and their family members for their achievements and mentioned that this year had seen the highest number of actuarial students qualifying.

His speech was immediately followed by a vibrant dance performance by the 'Kings United India' dance group. The group has represented India on the world platform for various dance performances and soon had the actuarial audience swaying to their 'Hip-hop' performance.

This was followed by a speech by **Mr. D.K. Pandit** from KA Pandit, Consultants and Actuaries. KA Pandit, Consultants and Actuaries is a leading actuarial consultancy firm in India working mainly on the employee benefit side. In his speech, Mr. D.K. Pandit mentioned how his firm had started its practice way back in 1943 and was now in its 73rd year of operations. He spoke about the growing importance of Pension

business globally due to the increase in longevity of people.

His speech was followed by a skit by actuarial students and children part of the 'Math Stars project'. This project is in its 6th year of operation and has been successful in providing basic education and inculcating the importance of mathematics in lives of over 2000 students belonging to economically weaker section of society. The skit brought various important mathematic concepts such as BODMAS, simultaneous linear equations and Integration by way of a story and thus highlighted the importance of Math in our everyday life. The students also reflected on the concepts of infinity and spoke about the contribution of Mr. C. P. Ramanujam to the field of mathematics. The performance ended with inspiring lines taken from the poem of Mr Harivanshrai Bachchan giving the message of 'never giving up' and 'keep trying'.

This was an ideal curtain-raiser to the main award presentation ceremony, rewarding the hard work of members of the profession. All the awardees and newly qualified Fellows were excited and eagerly waiting for their names to be announced. Few of the family members of awardees and fellows were also present to witness the important milestones of the life of their loved ones.

The first set of award was presented for Best Article and Best Reportage in 'the Actuary India' magazine for the year 2015. This was followed by rewarding individuals scoring highest marks in Actuarial Common Entrance Test (ACET) held in year 2015.

Before the presentation of next set of awards, there was another enthralling performance by the 'Kings United India' dance group. This time they mixed their 'Bollywood' and 'Hip-hop' dance moves presenting the power packed performance which was a delight to watch.

Then was the time for presenting the next set of awards. These were the academic excellence awards for students securing highest marks in 2015 exam diets. This was followed by awarding certificates to students who became an Associate.

Then followed the award for 'Math Star' winner. This award was for a poem writing competition that was held on 'Topic zero'.

As the Fellows waited for their turn to receive the qualification certificate, 'Kings United India' dance group gave their final performance for the evening.

Finally, the much awaited moment in the life of 'qualifying Fellows' was here as Mr. Rajesh Dalmia, President of the Institute gave the certificates to all members qualifying for Fellowship. It was heartening to see that in the year 2015, a total of 35 people qualified as 'Fellow' – the highest ever. This is testament to the growing actuarial profession in India and the hope that 2016 sees even more number of 'Fellows'.

On this note, the main event concluded and the members were invited for cocktails and dinner.

meet the
author



**vichitra
malhotra**

Ms. Vichitra Malhotra is a Fellow member of the Institute and is currently working as Consultant with PWC

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Concurrent Session on Pension

Organized by
Institute of Actuaries of India

Venue
Renaissance Hotel, Mumbai

Date
2nd February, 2016

Session : A Curious Contract- Exploring the nuances of Gold Backed Pension Products

Chairperson: Mr. Akshay Pandit

Speaker: Mr. Saket Hishikar

"As for me, I am tormented with an everlasting itch for things remote. I love to sail forbidden seas, and land on barbarous coasts."

Herman Melville, Moby-Dick; or, The Whale

And this very intrigue for things remote, is likely to have led the speaker to explore the possibility of gold as an asset to assure retirement income. Since no such contract exists in India at present, it is a 'curious contract' indeed!

Laying the rationale for an exploration, Mr. Saket began by stating the importance of gold in Indian household's balance sheet (12% of net financial assets) and its overwhelming dominance in savings (39% -81% of GDP). An overview was then presented on the recent attempts on "gold monetisation", where in Union Budget 2015-16 announced two gold monetisation schemes namely 'Revamped Gold Deposit Scheme' (RGDS) and 'Sovereign Gold Bond Scheme' (SGBS). These two schemes owed their origins to RBI's KUB Rao Committee Report.

Gold as an alternate pension system

The speaker elaborated on the prevalent pension policy in India and stated that it was influenced by the new pension reforms

articulated by World Bank (WB) in its seminal report of 1994. However in 2006, a review of this policy by the WB revealed certain shortcomings. The review stated that WB acted hastily to support the multi-pillar pension system without examining alternate systems.

Furthermore, some recent developments in India, like the investigation of causes for the tenuous beginning of National Pension Scheme (NPS) and replacement of Planning Commission with Niti Aayog were strong indicators for the existing pension policy to be re-evaluated. Gold Backed Pension Products (GBPP) could serve as an alternate pension system to supplement the current pension framework.

Research methodology and challenges

The speaker cited the difficulty in researching GBPP since no such product exists anywhere in the world. Besides having no mention of GBPP in academic literature on gold, impediments to further research also comprised an uncertain legal position on the subject.

The speaker therefore relied upon an Indian technique of inquiry found in Bheda-Abheda Vedanta because of its adaptability in defining the problem. Under this technique, difference and

non-difference can be understood in two ways- as "identity or negation of identity" and as "separation and non-separation".

Case for GBPP

Exploring GBPP requires an understanding of the characteristics of gold. In this regard, is gold a commodity or money? Having presented the position on gold by different schools of thoughts, the speaker then went on to state the four objectives that any pension product must meet. These objectives include: **consumption smoothing, preservation of standard of living, preservation of purchasing power over time and prevention of old age poverty.**

Gold fared favourably on all these four aspects because documented statistical properties of gold show that it is an effective hedge against inflation, a hedge against drastic equity market decline and currency depreciation. Furthermore GBPP can be viewed as a culturally driven, defined contribution plan with a near universal coverage, where compliance is voluntary and state support is obviated.

When viewed on an end-to-end basis, gold savings operate under the Tax-Exempt-Exempt (TEE) regime as compared to the more prevalent EEE or EET structure for other savings instruments. Due to the universal acceptability of gold as investment, there is a compelling case to use GBPP by the general population at large, and particularly by elderly females.



Mr. Saket Hishikar

Mr. Akshay Pandit

Types of Gold Backed Pension Products

After having provided the wider context, the speaker conveyed that recent attempts at gold monetisation have been far from nascent. However, the suggestion to use household gold to finance old age pension was first made by Prof R Vaidyanathan in 2004 and again in 2011. Although, KUB Rao's idea in 2013 was similar, Rao's approach differed from Vaidyanathan's approach. Vaidyanathan propounded an innovative instrument like reverse mortgage wherein a bank extended a lump sum amount against gold which in turn could be used to purchase a life annuity from the insurance company. However, as per KUB Rao's proposals, households shall deposit idle gold with the bank. In return, customers would be rewarded with gold equivalent returns in the form of a monthly pension over a period of 20 to 25 years. In this scheme, annuity resembles grams of gold, similar to the payouts under the Gold Deposit Scheme, 1999.

Having stated the two broad approaches, the speaker went on to present the four types of GBPP based on the preferred operational definition of gold and the design of the annuity promised to the consumer (Please refer to the table below).

	Annuity Type	
	Plain Vanilla Rupee	Grams of Gold
Clean Purchase (Pure Currency)	Type I	Type II
Reverse Mortgage (Commodity and Currency)	Type III	Type IV

Operational Challenges/ Limitations

A proposal like GBPP would not be easy to implement and it would face operational challenges. Firstly, absence of a term structure of interest rates for gold will hinder the valuation of GBPP. However, with the launch of RGDS and SGBS, a market benchmark for interest rate for physical gold may develop in future. Also, Indian Bullion and Jewellers association are striving for a dedicated physical gold exchange.

Secondly, the research paper on GBPP defines GBPP from the liability side while ignoring asset side. However, deployment of gold to generate sufficient inflation-adjusted returns to meet promised annuity would also need adequate consideration. Although, issuances under SGBS and RGDS could serve as matching assets, tenures beyond a horizon of ten years are untenable at present. However, in the speaker's opinion, the product could be launched by insurance companies promising an annuity up to ten years.

Thirdly, harmonising provisions across various laws would be necessary to minimise regulatory arbitrage, to provide a level playing

field to possible entrants and for consumer protection. This would be a mammoth task. Also, some laws would require modifications such as Insurance Act, Stamp Duty Act etc.

Conclusion

The speaker concluded by echoing that although there is no precedence of GBPP anywhere in the world, a possible net welfare gain is possible in the Indian context. GBPP would likely face challenges and more research is warranted to explore the idea further.



meet the author

Nandan Nadkarni

Mr. Nandan has been working in the domain of Employee Benefits for the past few years.

VOLUNTEERING OPPORTUNITIES

IAI invites its fellow members and qualified actuaries of IFoA, UK and IAA, Australia to join in its Volunteering Opportunities Initiative. Through this platform, members will be able to share ideas, gain a broader perspective and experience of work outside their own specialist area, through networking with peers, gain CPD hours and be able to give something back to the profession. We invite members who respect the IAI values and what it stands for and wish to take the profession to newer heights of success through their willingness to share their knowledge and/or skills by working in partnership with peers/colleagues.

If you are interested in applying, please visit our website for more details: www.actuariesindia.org

THE MATH STARS

Organized by
Institute of Actuaries of India

Venue
Renaissance Hotel, Mumbai

Date
1st February, 2016

This was the 5th successive year of NGO Event conducted by Mayur Ankolekar and his team of young and enthusiastic Actuarial Professionals. They made every effort to demonstrate simplicity of Mathematics and Statistic in real world and the impact it has in every micro events. They use the finest techniques and simplistic approach towards teaching mathematics and statistic. Therefore, when they give a grounding into deep concepts of Mathematics, it is very straightforward for kids to absorb. These are the kids who possess high intellect but not getting required exposure to put it to use.

Every year they used to conduct a class room activities for this kids. This year they went one step ahead to give them an exposure of to be on stage. They presented them in front of Actuaries from across the world from the medium of a Play in English and Hindi languages. The key aim of the play was to demonstrate an approach towards problem solving which might seem to be simple but requires to use application of mind, method and technique to arrive at correct solution.



This was followed by an interactive session with **Fiona Morrison** and Mr. Suresh Sindhi

Ms. Fiona Morrison is President IFOA and a Mathematics graduate with over 35 years of work experience. Despite having such credentials she is down to earth and calm in

her way of conversing with kids. She began with appreciation for the stage performance and taking them through how her journey of life started. A journey which had ups and down, but how being good at mathematics helped her to grow. She also mentioned that mathematics is a fundamental of every country and so is for our developing nation India. There are numerous opportunities open for Actuaries as they are the brains behind critical calculation of Mortality of your life and prediction of accidental event to your Vehicle / Home.

She not only mesmerized kids with her choice of words and few goodies gifted by her to all but also motivated volunteers on right approach towards studies and volunteering to next level.

This was followed by introduction to **Mr. Suresh Sindhi**, Fellow of Institute of Actuaries of India and Institute and Faculty of Actuaries UK. Mr Sindhi has over 15 plus years of work experience and is a classic leader with simple and humble way of life. He like other migrants came to India (Solapur) with a bag and a handful of valuables. He did his schooling from small school in Marathi language. He very strongly pointed out that that to acquire knowledge one should have zest to learn. Being educated in an international school is just another way of learning but not necessarily only way to learn. He kept us all intrigued with his personality and said there is no escape to hard work, and he looks forward to see future actuary in these kids.

They also conducted poem writing competition for kids on subject "Zero". Kids really came out with wonderful poems. Out of all 6 winners were selected and were felicitated on stage for their creative thought process.



Rest of all kids also received gifts from Institute of Actuaries of India.

As we all know that there is no end to numbers, it is infinite and similarly there is no end to gaining knowledge. As you climb one ladder up and come close towards the end of it, you will realize that it was just a beginning and there are many more that lay ahead.

The same way this volunteers way of nurturing future Actuaries in to these kids has just started. And they are not just volunteers but individuals led by passion with in themselves and guided by **Mr. Mayur Ankolekar** to move towards a bright future and on the way also helping these kids towards a brighter tomorrow.



IAI STUDENT EVENT: Communication and work based skills – the keys to unlocking your career potential

Organized by
Institute & Faculty of Actuaries, UK

Venue
Renaissance Mumbai Convention
Centre Hotel, Mumbai

Date
1st - 2nd February, 2016

Good communication is rapidly becoming an essential skill that businesses look for when looking to employ an actuary, according to the Chief Executive Officer of the Institute and Faculty of Actuaries (IFoA), **Mr. Derek Cribb**. “An actuary may possess good technical and people skills, and substantial business acumen, but his usefulness to a business would be limited if he was not able to communicate his ideas effectively to his audience,” he addressed a group of actuarial students during the first day of the 18th GCA



Derek Cribb

Mr. Cribb also stressed on the importance of direct communication, explaining that communication did not just involve the contents of one's message, but also wider elements such as the communicator's tone of voice, with emphasis, pitch and pace being key, and non-verbal signals, which encompasses maintaining a positive body language, good eye contact, and effective use of space.

During his presentation, Mr. Cribb proceeded to elaborate on his views of key business traits possessed by a successful actuarial executive. These included attributes such as being aware of one's impact on other stakeholders, the ability to flex one's communication style depending on the audience, but also being approachable, authentic and empathetic to other stakeholders' needs.

Following Mr. Cribb's session, the IFoA's Director of Education,

Mr. Clifford Friend presented on work based skills and why they are important in the context of an actuary's work. Mr. Friend continued on a similar theme to Mr. Cribb, emphasising the importance of work based skills, which are considered necessary for one to be successful as an actuary.

To be a successful actuary, one requires a combination of theoretical knowledge obtained through actuarial examinations, practical skills acquired through work experience, and professionalism skills, which are naturally developed through interactions at work and also through the acquisition of hours required under the IFoA's Continuous Professional Development (CPD) scheme.



Clifford Friend

However, beyond these requirements, Mr. Friend highlighted the need for a successful actuary to master more commercial elements, such as being able to meet consumer needs while understanding the business context, to recognise the public interest, and to communicate to a wide range of audience, including those of technical and non-technical backgrounds. With such commercial demands of an actuary, the work based skills has been especially designed to help students fine-tune a variety of important business skillsets, for example to hone their ability to understand the interaction between theory and practice when using actuarial techniques and to more

clearly understand the commercial environment in which they operate. With completion of work based skills, an actuary should also be able to work successfully within a professional and ethical framework, be able to communicate effectively with all his or her stakeholders and colleagues, and develop their competence in respect to their “softer skill”, notably management skills.

Mr. Friend proceeded to explain the details of work based skills to the conference attendees. The actuarial student, while working towards completion of the professional examinations, would complete a learning log which sets out the skills addressed, any technical or professional courses or on-the-job training courses undertaken, and provide evidence of questions addressed and feedback given by the student's supervisor. There will then be periodic review carried out by the supervisor to ensure that the questions have been addressed adequately. The questions set by the supervisor could be one of the following key dimensions:

- Technical application of actuarial skills,
- Judgement,
- Professional and ethical
- Communication
- Commercial
- Information communication technology; and
- Management.

Mr. Friend pointed out some practical points employers can carry out to assist their actuarial students with their work based skills requirements. Ensuring adequate exposure to a wide breadth of skills to their students, or allowing time for effective discussion to tie in with the performance appraisal process would assist

in this respect. The possibility of accreditation of employers' appraisal schemes for work based skills could also be explored with the IFoA.

The focus on business and communication skills was brought into greater focus via a competition held by the IFoA on the Day 2 of the conference. The competition consisted of 20 participants, who were each given up to 45 seconds to explain the importance of hiring people with actuarial training to a "Chief Executive Officer", who was role-played by Mr. Friend.

Adjudicating this competition were the three judges: **Mr. Cribb** himself, **Ms. Fiona Morrison**, the President of the IFoA, and **Mr. Nishit Majmudar**, the CEO of Aviva Ltd. Each of the judges was asked to provide a score between 0 and 10 for each participant, and audience applause were also included within the computation of the overall score. Judges' feedback was also provided to individual candidates following their pitch.

The winner of this competition was **Shatrudaman Sharma**, who won an iPad mini for his fantastic efforts.



Derek Cribb, Fiona Morrison, Nishit Majmudar

On the eve of the conference, 31st January 2016, the Institute of Actuaries India (IAI) and the IFoA hosted a joint dinner event. An IFoA new qualifiers' ceremony was also held during the dinner. This was a moment to savour for the newly-qualified Fellows, who were able to share in the joy of their achievement with their proud parents, family and friends. Our heartiest congratulations to:

- Shilpika Agrawal
- Vishal Ahuja
- Ramanuj Bhangdiya
- Raj Chaurasia
- Ishwar Gopashetti
- Priyank Gupta
- Rahul Khandelwal

- Bharat Khurana
- Rakesh Kumar
- Sachin Madan
- Keyur Parekh
- Shruti Saxena
- Vaibhav Tyagi

meet the
author



Caryn Chua

Ms. Caryn Chua is a Fellow member of the IFoA and currently working as an Actuary Representative of South-East Asia for the Institute and Faculty of Actuaries (IFoA).

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Highlights:

- Exposure to projects related to pricing, reserving, technical provisions, model validation, risk management, and predictive analytics for various businesses; opportunity to work closely with onshore actuaries and be mentored by them

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Concurrent Session on Pensions and Employee Benefits

Organized by
Institute of Actuaries of India

Venue
Renaissance Mumbai Convention
Centre Hotel, Powai

Date
1st February 2016

Session 1: Changing Profile of the Consulting Actuary

Chairperson: Dr. K. Sriram,
Consulting Actuary.

Panelists: Mr. Saket Singhal,
Consulting Actuary & Mr. A N
Thanawala, Consulting Actuary

associations to enhance the role of actuaries to develop more meaningful disclosures.

On the topic of Enterprise Risk Management (ERM), **Mr. Singhal** mentioned that actuaries have a role to play in identifying and managing

a number of new opportunities. He mentioned that actuaries are currently not included in the "Registered Valuers" list which can open up a vast range of opportunities. For example, actuaries have a role to play in fair value determination of assets and liabilities under IFRS and in the design and valuations of ESOPs and warranty schemes. There could also be greater involvement for actuaries in the areas of benefits consulting and also in corporate governance.

The session closed with a Q&A session where the key take away was that actuaries need to work closely with companies and accountants to ensure a seamless transition to Ind AS.



(From Left) K. Sriram, Arpan N Thanawala, Saket Singhal

Dr. Sriram identified four key areas where actuaries can have a bigger role to play, viz. (i) Introduction of new accounting standard (Ind AS 19) on employee benefits; (ii) Enterprise Risk Management (iii) Role of actuaries in DC Schemes, and (iv) Other emerging opportunities in the short and long term.

Mr. Thanawala spoke about the key differences between the current standard AS 15 and Ind AS 19 and the fact that the new standard is very closely aligned to IFRS. He also stressed about that the enhanced disclosure requirements where actuaries will have a greater involvement to provide more information that will need to be more meaningful to the readers of the statement, especially with respect to the risk and management of the benefit schemes. Both speakers and the chairperson agreed that there is an opportunity to work closely with other professional bodies (e.g. Chartered Accountants and Company Secretaries) and employer

risks in respect of non-traditional schemes, e.g. death benefit schemes, post-retirement medical schemes and ESOPs. He also said that actuaries can work with trustees to weave in ERM in employee benefit plans, for example, implementing ALM techniques for investment strategies. Mr. Thanawala then discussed areas for actuaries in Defined Contribution Schemes. For example, actuaries can be involved in plan design and setting appropriate assumptions to arrive at a target pension.

Finally, on other emerging opportunities, Mr. Singhal identified

Session 2: Retirement Readiness in India

Chairperson: **Mr. R Arunachalam**,
Consulting Actuary, Cholamandalam
MS General Insurance Co. Ltd, India.

Speaker: **Mr. Mahasen Kunapuli**,
Practice Lead Actuarial, Rewards,
and Analytics, Deloitte, India.

Mr. Kunapuli set the context by providing background and demographic information in relation to population growth, old-age dependency ratios and mortality improvements. He said that as India



Mahasen Kunapuli

R Arunachalam

continues its path into economic prosperity, there is a lot to learn from other advanced countries. It is expected that India's old-age dependency ratio is expected to be as much as the United States by 2050 and with reducing mortality rates, understanding the potential risks being faced may help India better prepare for retirement readiness.

He talked about the 3-legged stool for retirement security, i.e. social security, personal savings and employer provided pensions. In India, with virtually no social security and DB pensions going away or generally restricted to the public sector, there is a lot of pressure on personal savings. The bright spot is that India does relatively better on savings rate compared to other countries, including western countries.

He went on to talk about how a pension system should be measured, for example, it is widely regarded that the best pension plans should have a healthy funding ratio, should have wide coverage, provide adequate benefits and have robust regulations. He also compared the pension systems of other countries with India, for example, Denmark, which has one of the top graded pension systems in the World.

He discussed the current low pension penetration in India where only 15% falls under organized workers and is covered by retirement regulations and personal savings, and that majority of the population have no access to any formal system of old age economic security with no or low coverage level. There are of course other challenges like high poverty rate and unemployment along with an underdeveloped annuity market which makes pension savings even more difficult.

Given the current situation and above challenges, what is the thumb rule for an ideal retirement income? According to a recent study conducted by AonHewitt in the US, a lump sum equal to roughly 11 times the pre-retirement income is needed to maintain a similar standard of living in retirement. Even for India, Mr. Kunapuli believes that a similar factor would be more appropriate

given that there are no government provided benefits, superannuation schemes not being so common, increasing life expectancies and increasing medical claim expenses.

He shared some analysis that he has done with respect to current savings in the formal employment sector and it is found that at the current rate, a combination of Provident, gratuity and NPS may not be sufficient to provide adequate income replacement at retirement. While current participation rates are very low, NPS is an attractive product and will be a key driver to increase retirement savings.

Mr. Kunapuli concluded by stating that a lot needs to be done to ensure retirement readiness in India, which include improving pension coverage for Un-organized workers, creating more awareness of existing savings vehicles like NPS through Un-organized sector and Improving statutory and regulatory framework for the organized sector. The session was followed by an interactive Q&A session where some members of the audience were curious to know about the factor of 11 and how this is expected to change over time. Members in the audience also highlighted some practical challenges with NPS and how pensions should provide a better hedge against inflation.

Session 3: Accounting and Actuarial Aspects of Ind AS 19

Chairperson: Mr. R Arunachalam.

Speakers: Mr. Akshay Pandit, Partner, M/s KA Pandit, **Mr. Kartikey Kandoi,** Actuarial Analyst, M/s. K. A. Pandit.



Akshay Pandit

While **Mr. Pandit** set the context, the detailed presentation was

made by Mr. Kandoi. The speakers covered the history of accounting of employee benefits, the need and evolution of actuarial valuations for employee benefits, the roadmap for implementation of Ind AS and finally the key differences between AS 15 and Ind AS 19.



Kartikey Kandoi

Mr. Kandoi discussed the roadmap for implementation of Ind AS 19 and stressed on the importance of a smooth transition. Companies with Net worth of INR 500 Crores or more will need to follow Ind AS from accounting period starting on or after 1st April, 2016 with comparative figures for the previous year. Listed Companies with Net worth less than INR 500 Crores & Unlisted Companies having net worth INR 250 - 500 Crores will need to comply from 1st April, 2017. Earlier voluntary adoption is permitted.

He then set out in detail the key differences between AS 15 and Ind AS 19, which are summarized as under:

- (i) For Post-employment benefit plans (example Gratuity, Pension & PRMB) Actuarial Gain/ Loss will be taken to **Other Comprehensive Income** and will not be reclassified into Profit & Loss in subsequent periods. For Other long term benefits, (example compensated absences & long service awards) Actuarial gain/ loss will continue to be recognized in Profit & Loss. Hence, recognition criteria is the same in Ind AS 19 as was in AS 15 for other long term plans.
- (ii) **Net interest cost** is to be calculated on **Net Liabilities/ Assets** at the beginning of the period using the discount rate,

hence the concept of a different Expected return on assets will no longer be applicable.

- (iii) **Discount rate** for subsidiaries of companies domiciled outside India can be based on market yields on high quality Corporate bonds, if there is a deep market in such bonds in that country. This option was not earlier available under AS 15 and will be important for Indian MNC's with foreign subsidiaries in major markets like US, UK, etc.
- (iv) Other differences include no distinction between vested and unvested in connection with past service recognition and a requirement to split gains and losses into that arising due to financial and demographic assumptions.

Mr. Kandoi also explained the implications of the above changes through some illustrations and worked examples showing clearly the side-by-side comparison of the figures and various tables under AS 15 and Ind AS 19.

The disclosure requirements have also been expanded significantly, which now include the following:

- (i) **Risks:** An explanation of the characteristics and risks associated with DB schemes and how the characteristics of the scheme may affect the amount, timing and uncertainty of the company's cash flows, including identification of unusual risks and concentration of risks
- (ii) **Cash flows:** Expected employer contributions over the coming year together with a description of the funding arrangements and maturity profile of the defined benefit obligation.
- (iii) **Sensitivity of Assumptions:** the significant assumptions used and the sensitivity of the value of the liabilities to changes in these assumptions.

This could mean a significant amount of time being spent on preparing the disclosures and tailoring each disclosure to make it meaningful to the readers and users of the statements.

The speakers concluded by stating the importance of adequate preparation from all stakeholders (e.g. companies, actuaries and auditors) so that the standard could be implemented smoothly.



meet the author

Ritobrata Sarkar

Mr. Ritobrata Sarkar is a Consulting Actuary and Senior Consultant with Willis Towers Watson working in the area of employee benefits.

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PRESS RELEASE



Education Times Story: Popular choices

Anisha Sahijwala lists some of the careers for commerce graduates ; The quote by Mr. Rajesh Dalmia has also been carried:

"In 2005, the International Actuarial Association conducted a study on the demand and supply of actuaries across the world. The findings of the study stated that the estimated gap in demand and supply in 2005 was 40,000, when the estimated total number of actuaries was 44,000. Currently, in India, we have 300 actuaries (fellows) whereas India's GDP is around two trillion US Dollars. Therefore, there is a huge demand-supply gap in the Indian context. To put the numbers in perspective, in India, we have roughly 30 qualified actuaries in a year, whereas the US produces over 1,200 actuaries in a year. It is projected that the Indian economy will surpass the US economy by 2050, thereby increasing the scope of the actuarial profession in India," explains Rajesh Dalmia, president, Institute of Actuaries of India.

(<http://www.educationtimes.com/article/98/20160222201602191842368352ce279dc/Popular-choices.html>)

Concurrent sessions on Data Sciences

Organized by
Institute of Actuaries of India

Venue
Hotel Renaissance, Powai, Mumbai

Date
2nd February, 2016

Session Name: “Big data in insurance and its impact on actuarial profession”

Name of Chairperson: Mr. Ankur Agrawal (Head of Actuarial, Data Science, and Research – AXA Business Services)

Speakers: Mr. Philippe Marie-Jeanne (Chief Data Office and Head of Data Innovation Lab – AXA Group)

Brief about the session

Mr. Philippe Marie-Jeanne, Chief Data Officer and Head of Data Innovation Lab of the AXA Group, made an interesting presentation on a theme that’s the buzzword in the insurance industry today – “Big Data and Data Science”. The essence of the session was on the emergence of digitization, the datafication of the world and how this may potentially change the way actuaries work.

The presentation was broadly divided into four sections as below and followed by a conclusion:

- Brief introduction about AXA Group and AXA’s Data Innovation Lab
- How big data is transforming the insurance landscape
- Exponential evolution for the actuarial world
- What will and will not change when big data meets actuarial science

It began with a short introduction of the AXA Group being a multiline insurer, with presence in over 59 countries globally, more than 100 million customers, and revenue of 92 billion Euros. It went onto

to provide insight into why AXA considers Big Data as an opportunity for their business growth, thus explaining why AXA was investing heavily in this space by setting up the “Data Innovation Lab” with several strategic partnerships and hubs across the globe. The idea of setting

and customers. Very importantly, it mentioned that big data can come even with a limited number of customers through multiple dimensions about them. The emergence of data science and data scientists was interestingly depicted through the use of a Venn diagram, with a key message that



Philippe Marie-Jeanne

Ankur Agrawal

up the vast innovation ecosystem and opening to the external world is to bring about disruptive ideas that could change the way insurance worked.

The next section was about how big data and its abundance is presenting new challenges and opportunities, necessitates technological transformation, and will change the way we work in the future. Talking about how 90% of the world’s data was created in the last 2 years, emphasis was laid on how a great proportion of this data is unstructured data, thereby making it difficult to use and apply. The presentation talked about how new technologies like “Hadoop” and data architecture like “Data Lake” with data integration layers and newer algorithms can help insurers leverage the goldmine of data and make an impact on their business

cross-disciplinary skillsets would be essential to unfold the future of the insurance industry.

Having set the big data context, the presentation touched upon how this was not a new phenomenon though insurance industry has been a little late to wake up to it. Actuaries so far are generally using data in a traditional way, perhaps in silos, and largely through structured datasets only. Technological advancement and modern tools, however, are now presenting newer capabilities to enable actuaries to play with data and get useful information about their customer and improve their models. The new paradigm is about connected devices, predictive behavior and advanced risk management approaches. The presentation provided two case studies to practically demonstrate the usability of data science concepts

in insurance – one on feature engineering in telematics and the other on use of advanced techniques like Decision Tree and Random Forest in predictive analytics.

The last section highlighted how the landscape of risk assessment is changing due to big data. It talked about usage of both internal and external data to assess and predict risk, though mentioning how internal data has been generally found to be more powerful. Though big data is revolutionizing the way actuaries work, certain fundamentals still remain critical and they are the understanding of the market and risk and actuarial risk management approaches. What will change, however, is the amount and type of data usage, the sophistication levels of the actuarial models, and move towards an algorithmic culture.

The biggest challenge, however, is assembling all this information into a coherent model and will require a collaborative effort from actuaries and data scientists.

Session Highlights

The session probed into a very important aspect of the insurance

world and how actuaries can leverage the opportunity to make innovative impact to their business. It clearly highlighted the following key messages:

- Insurance landscape is changing very dynamically due to big data
- Tools and technology have made it easier to store and deploy large volumes and variety of data
- Abundance of data presents new challenges of identification, interpretation, and implementation
- These requires newer skills and more iterative approach and actuaries need to gear up for it

Summary of Session

The topic of the session was “**Big data in insurance and its impact on actuarial profession**” and in a true sense, it brought home the point of technical evolution to come for actuaries and how it may impact the way actuaries work. Big data will not only be a new toolkit to empower actuaries but something that will change their approach and methodologies towards risk

assessment and management. The environment presents new challenges and future will belong to companies and people that turn data into products. In this context, the actuaries can play a pivotal role and act as future business transformers through embracing big data and data science.



meet the author

Krishna Singla

Mr. Krishna Singla is a student member of IAI & IFoA and is presently working as an Actuarial Manager (Health) for AXA Business Services in Pune.

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The Actuary India – Editorial Policy

Version 2.00/23rd Jan 2011

A: “The Actuary India” published monthly as a magazine since October, 2002, aims to be a forum for members of the Institute of Actuaries of India (the Institute) for;

- a. Disseminating information,
- b. Communicating developments affecting the Institute members in particular and the actuarial profession in general,
- c. Articulating issues of contemporary concern to the members of the profession.
- d. Cementing and developing relationships across membership by promoting discussion and dialogue on professional issues.
- e. Discussing and debating issues particularly of public interest, which could be served by the actuarial profession,
- f. Student members of the profession to share their views on matters of professional interest by way of articles and write-ups.

B: The Institute recognizes the fact that;

- a. there is a growing emphasis on the globalization of the actuarial profession;
- b. there is an imminent need to position the profession in a business context which transcends the traditional and specific actuarial applications.
- c. The Institute members increasingly will work across the globe and in global context.

C: Given this background the Institute strongly encourages contributions from the following groups of professionals:

- a. Members of other international actuarial associations across the globe
- b. Regulators and government officials
- c. Professionals from allied professions such as banking and other financial services
- d. Academia
- e. Professionals from other disciplines whose views are of interest to the actuarial profession
- f. Business leaders in financial services.

D: The magazine also seeks to keep members updated on the activities of the Institute including events on the various practice areas and the various professional development programs on the anvil.

E: The Institute while encouraging stakeholders as in section C to contribute to the Magazine, it makes it clear that responsibility for authenticity of the content or opinions expressed in any material published in the Magazine is solely of its author and the Institute, any of its editors, the staff working on it or "the Actuary India" is in no way holds responsibility there for. In respect of the advertisements, the advertisers are solely responsible for contents of such advertisements and implications of the same.

F: Finally and most importantly the Institute strongly believes that the magazine must play its part in motivating students to grow fast as actuaries of tomorrow to be capable of serving the financial services within ever demanding customer expectations.

Version history:

Ver. 1.00/31st Jan. 2004

Ver. 2.00/23rd Jan. 2011

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Ms. R. M. Vishakha

CEO, MD-IndiaFirst Life Insurance Company Limited



PERSONAL

1. What qualifications and experience do you think is appropriate for a CEO of a Life Insurance Company to be successful?

While education is important, qualifications alone do not play a big role in the success of the CEO of any business. Also, more than any specific experience the person should have a good understanding of the fundamentals of the business, a clear view of the value pyramid and understand the drivers of top and bottom line.

2. What are the key qualities one should possess to be a successful CEO. What are the challenges that you face as a CEO?

It is critical for the CEO to possess a good understanding of all domains, while being balanced and pragmatic. Organizations have forces that operate in different directions, the CEO needs to provide the stability to these forces and propel the organization forward. It requires an ability to understand the implications of all actions and to foresee the dominoes effect of every event. It is also important that the CEO does not get swayed by temporary pressures of the market. Finally I would say, sustaining a profitable top line is the mantra.

The main challenge is balancing the view of all Subject Matter Experts, and creating a cohesive view for the organization. The CEO needs to play the role of channelizing and guiding each function's expertise to accomplish enhanced business performance.

3. What are your hobbies and how do you manage your work life balance?

I enjoy watching movies. Apart from helping me unwind and relax, I feel each movie carries lessons on motivation and management.

As for work-life balance, I carry no guilt about making compromises and prioritize based on the requirements of each situation. I also believe in giving my 100% to what I am doing, be it leisure or work.

PROFESSION

4. What is your typical day at work?

I try to meet as many people as possible. I find these interactions with internal and external people necessary to drive forward the vision of the organization. I try to align and balance the objectives of various teams, and offer support where I spot gaps and feel my intervention is required.

5. What can you tell us about the future employment outlook in insurance sector for actuaries?

Actuaries by their professional training are meant to be predictive not operational or analytical. However most tend to become specialists in their function of pricing or valuation or any other domain. The more evolved actuaries are able to take a holistic approach to business and they can understand the dynamic forces that impact every variable. With actuaries becoming more business oriented we believe that they can function across all departments.

6. What do you consider to be the key areas where actuaries add value to the business?

Actuaries can add value at all stages of business including, but not limited to development of product strategy, product design, pricing, underwriting, claims management, valuation and company's performance monitoring.

7. What impact do actuaries have on consumers and society? What should they do to connect with the society?

Actuaries play a pivotal role in ensuring protection of the customers throughout the lifecycle of the product. While ensuring fairness to customers at an initial stage such as at the time of pricing the products, actuaries have to constantly safeguard customer interest at all stages of the policy and deliver the payouts as per commitment. This is expected to strengthen customer confidence especially on long term products and motivate the society to appreciate the needs and value of insurance.

Actuaries, can actually help to build a financially secured society through organizing and participating in various forums to spread the awareness of the profession and connect with the society.

8. How do you think Institute of Actuaries of India can support better its members?

Actuaries hold a key to all risk management and risk mitigation strategies which are of utmost importance to the business and management and hence requires effective communication.

Institute can help its members in strengthening such effective business communication skills along with the strong technical expertise by encouraging and providing training to its members across various functions within the sector.

9. You being a fellow member of ICAI and III, what do you see commonality of approach with Actuarial profession?

One of the key areas of commonality is viewing everything through the risk management lens. Both professions understand and evaluate financial risks and evaluate the impact of their functions on the overall strategy and health of the organization.

10. How do you see actuaries taking Business roles in Life insurance companies? What values can they add to the business in the area of Finance, Sales, Marketing and Risk management?

Actuaries are integral part of the business in terms of communicating the correct message on the drivers of growth and good business of the company. This ranges from indicating the optimum business mix to sales, sources of profit and impact on future profitability to finance while monitoring and highlighting companies experience to indicate corrective actions to manage risks and ensure the company is safe and sound.

INSURANCE INDUSTRY IN INDIA

11. What trends do you see for this industry in the next 3 to 5 years?

The current FY 2015-16 might prove to be one of the best years in terms of new business growth for the industry prior to the introduction of new product regulations in the recent past. There is positivity, hope and expectations around the growth of this industry after the

implementation of Insurance Amendment Bill 2015 last year. Foreign promoters have shown their faith in this industry through increase in FDI from 26% to 49%. Private players are also gaining market share compared to public sector players. This reaffirms the customer confidence and growing awareness on this sector which is expected to propel the future growth of this sector. Most insurers are expecting new customer demands and digital technology to transform their market within the next few years and trigger penetration through mass market insurance by technology and digitization. The potential for growth of the industry is expected to be continued in near future as well. The profitability of the insurers are also expected to improve in near future through investing in cost saving cutting edge technologies and know-hows supplemented by the foreign partners.

12. Are there things that the IRDAI or the Government should have or should not have done to assist the industry?

Both the Regulator and the Government have taken various significant steps for boosting the investment sentiment of the sector which have helped to mobilize capital investment into the sector and revive the growth engine of the industry. The customer awareness is a key to the success of this sector. As such Regulator/Government intervention for spreading the awareness of the benefit of insurance should further help in sustaining and stimulating the growth of the industry. While the Government might also consider providing separate income tax exemption bracket for insurance plans to encourage customers to buy insurance products and create a financially secured society, regulators can also facilitate faster, need based product approval and review necessary product regulations to fulfil the gap in customer demands

13. What market share do you see the private sector players having in ten year's time?

We have seen in recent times the private players are gaining market share compared to public sector players. This is mainly due to growing customer faith towards private players for the increased awareness that all the players in this sector are well regulated and have strong financial position.

Going forward "customer service" will be the key for gaining market share. Private players are well equipped and ready to invest in tools often aided by the foreign partners for gaining customer's satisfaction and eventually gaining market share.

Moreover, there is an inherent capacity to explore the spaces like online digitization and innovative income protection coupled with the need to increase the insurance penetration where private insurers will have a lead in terms of technical knowhow and similar experiences provided by the foreign partners.

Hence the current trend in market share is expected to improve significantly further towards private players.

14. What are the top three issues facing the Insurance sector in India.

The top three challenges which the industry is facing are

- Customers retention/Persistency
- High acquisition expenses and hence low profitability
- Customers education/awareness

15. What do you believe are the inefficiencies in the insurance industry? How do you think such inefficiencies can be overcome?

As per my view the following are the inefficiencies exist within the industry

- The asymmetry of information between insurer and insured. This tends to result in mismatched expectations between the customer and the

insurance company. This can be avoided through transparent disclosures at the time of selling and educating customers about the benefit of providing true information in proposal form while buying insurance

- The productivity of distributors is low, leading to a vicious cycle of high acquisition costs and reduced profits for the company. Focus on digital platform, innovative technology and finally spreading customers awareness can help overcome the problem.

16. What do you think are the strengths of Indian Insurance Industry?

The strengths of Indian Insurance Industry are

- Well regulated industry during the initial phase of opening up
- Penetration of insurance is very low as compared to the developed economies reaffirming the huge potential for growth considering the enormous population and demography of India
- India is one of the fastest growing economy in the world which helps to attract foreign investment into the sector
- Strong distribution methods.
- Internet users growing exponentially in India further propelled by government drives on Skill India and Digital India which in turn is helping insurers to reach out to customers directly and increase customers base

- Inadequate supply of social security schemes helping Insurers filling the gap

17. How do you keep abreast with latest happenings in insurance sector in India and across globe particularly Life Insurance and overall economy?

Indian economy is one of the fastest growing economy in the world, potential for insurance business is huge and hence an attractive market place for global insurers. While most of the developed economies are struggling to expand insurance business in an already saturated market, India is having huge potential for expansion of insurance business. India is well equipped to ride this growth story.

CALL FOR ARTICLES

We invite articles from the members and non members with subject area being issues related to actuarial field, developments in the field and other related topics which are beneficial for the students of the institute.

The font size of the article ought to be 9.5. Also request you **to mark one or two sentences that represents gist of the article.** We will place it as **'break-out' box** as it will improve readability. Also it will be great help if you can suggest some **pictures that can be used with the article, just to make it attractive.** Articles should be original and not previously published. All the articles published in the magazine are guided by **EDITORIAL POLICY of the Institute.** The guidelines and cut-off date for submitting the articles are available at

http://actuariesindia.org.in/subMenu.aspx?id=106&val=submit_article

Institute of Actuaries of India

*Chairperson – GCA
Organising Committee &
External Affairs and
Research Committee of
IAI*

Mr. Dilip C Chakraborty



The recently concluded 18th Global Conference of Actuaries (GCA) evoked, as usual, a mixed reaction from participating delegates. Overall rating was positive. Organising an event with 736 participants in any place is a logistic nightmare. A few IAI staff and a small number of IAI Fellow and Associate members work voluntarily over a few months successfully to conduct these Conferences every year. As the Chairperson of GCA Organising Committee I greatly appreciate their efforts and dedication, and thank them all.

Without strong and sustained support from partners and sponsors' we will not be able to hold GCAs every year. I thank them all and appreciate their support to the Actuarial Profession. RGA Re was the Principal Partner for 18th GCA. The Institute and Faculty of Actuaries, UK, as in previous years, generously supported the event. K A Pandit Consultants and Actuaries co-sponsored the AGFA event third year in succession. GIC Re and Hannover

Re jointly, LIC, AIG and Deloitte were the major contributors. Reinsurance Companies, a few Life Insurance Companies, one private sector and a couple of public sector GI companies regularly sponsor this event. I thank them all for supporting the actuarial profession in India. The surplus of Income over expenses of GCA is a major source of fund for conducting day to day activities of the IAI. Ours is a small profession, we don't get any external or govt funding, our needs and responsibilities are growing leading to increasing expenses. But for the GCA income, we will struggle to operate without a massive increase of membership and other fees.

The speakers and Chairpersons deserve our thanks; I gratefully acknowledge their contributions. Many speakers travelled from outside India to share their knowledge and experiences with GCA participants. Some of them are not actuaries but are active players in Insurance and Financial Services Industry. I hope actuaries and actuarial students

benefitted from wide range of actuarial and non-actuarial papers presented.

We are examining the responses of post GCA survey and I will come back with results and comments on all major feedbacks. Today I will talk about a couple of issues that I noticed myself or heard from friends at the GCA.

My biggest disappointment is the way our members in large numbers were loitering around outside conference halls when sessions were going on. This is very unprofessional and gives an extremely poor impression about Indian Actuarial Profession. This year was worse than last two years. Not only students, I noticed even some qualified actuaries ignoring our repeated calls to join the sessions. I really despair and feel sad. What are the consequences of such misbehaviour? We cannot start sessions on time. Every tea or lunch break causes dislocation. Once a session is delayed, subsequent sessions too

get affected. The speakers, many travelling from outside spending valuable time and money, feel let down and disappointed by our lack of respect. No one likes to address a half empty hall. Sometimes in rush to complete sessions, allotted time to individual speakers gets reduced. We also get complaint from other guests of the Venue Hotel. Do we need to engage heavily built Bouncers from Hotel to force delegates inside when sessions are on?

We don't hold the GCA for commercial reasons alone. Many participants come for networking. Fellows look for CPD hours. But different categories of participants have different expectations. We get adverse comments when these, often conflicting, expectations are not met. IAI conducts a good number of seminars- mostly technical ones- throughout the year. Separate Current Issues Seminars on Life Insurance, GI, Health, Pension, and ERM are held every year. Capacity Building Seminars and Professionalism Seminars are organized regularly. These Seminars are meant for qualified or nearly qualified actuaries

working in respective practice areas and topics presented tend to be specialist and technical relevant for that line of business. GCA is the only annual conference where actuaries and students of all practice areas assemble and jointly interact and exchange views and experiences. We don't have any other seminar where students participate in such large numbers. A good number of our actuaries and students are employed in Global Actuarial Service Provision Industry- more commonly known as BPO, Outsourcing Industry. They provide a wide range of back office actuarial services to Insurance and Pension Industries in Western Countries. The GCA offers them only opportunity to interact with India focused actuarial fraternity. Obviously we try to draw program to provide some food for thoughts to all these diverse groups. As a result we end up getting comments like "Not sufficiently technical (for specialists) or too technical (for students)"; "Not sufficiently Global or too much Global"; "Too actuarial or too general". One even commented that the GCA does not deserve CPD hours; please don't claim CPD for GCA

if you feel so. We don't force anyone to claim CPD for an event.

There will not be a GCA in the year 2017. The 19th GCA will be in February 2018. I hope feedbacks received will be considered while drawing up program for GCA 2018.

Many of you are aware that IAI will host 20th Asian Actuarial Conference (AAC) in Delhi from 9 to 12 November, 2016. This will be the most prestigious actuarial International conference ever held in India. The Actuarial Association from all over Asia- from Australia, China, Japan, Korea, and Indonesia to Middle East Asia- will join hand to hold this Conference. We will write more about AAC in next few months.

*I conclude by
thanking once
again all who
contributed to the
success of the 18th
GCA.*

BIRTHDAY GREETINGS TO THE FELLOW MEMBERS WHO HAVE ATTAINED 60 YEARS OF AGE

**happy
birthday
to you!**

**MR. R. C. CHADHA
MR. G. CHIDAMBAR
MR. K. K. DHARNI
MR. S. KRISHNAN
MR. H. C. MEHTA
MR. RAMJIT DHANASAR**

**'THE ACTUARY INDIA' WISHES
MANY MORE YEARS OF HEALTHY LIFE
TO THE FELLOW MEMBERS
WHOSE BIRTHDAY FALL IN MARCH 2016**





From the Desk of

*the
Chairperson Peer,
Stakeholder and
International
Relations Advisory
Group*

Mr. Bharat Venkatramni

Greetings to all readers from the Peer, Stakeholder and International Relations Advisory Group.

The main areas of focus covers a very wide range of activities including interacting with and influencing opinion makers such as the CA Institute, the Institute of Company Secretaries, the Law Profession, the Financial Services Regulators: IRDAI, SEBI, RBI, other industry bodies and corporate sector: FICCI, CII etc and the Government, etc, maintaining and building relations with International Actuarial Bodies, marketing the profession amongst stakeholders in skill sets of actuaries and in the immediate facilitate employment capacity of Institute members, building and enhancing the image of actuaries as experts and managers of risk and financial institutions as well as Identifying actuarial education support needs of countries in South Asia and Asia Pacific and facilitate

delivery of the same. In addition, this group also owns the responsibility for the smooth conduct of Global Conference of Actuaries, which is held on an annual basis.

2016 promises to be a busy year for this Group. The 18th Global Conference of Actuaries is already behind us and saw more than 730 participants in attendance from 16 countries. As some of you may be aware the 2016 Asian Actuarial Conference (AAC) – formerly known as the East Asian Actuarial Conference (EAAC) is scheduled to be held in India for the first time. This is the largest annual actuarial conference in the region and attracts delegates and speakers from the region as well as other parts of the Globe. The last edition of the Conference was held at Bangkok, Thailand and was attended by over 700 participants from 26 countries.

Owing to the scale of the event, preparations are already underway and is expected to remain the core

activity for the Group in 2016. The event is scheduled to be held at the Hyatt Regency, Gurgaon from 9th November to 12th November. Besides the responsibility of the conduct of the AAC, from this Group's perspective this event is also expected to provide adequate opportunity to interact with representatives from other Actuarial professional bodies and regulators within the Asian Region. These interactions will be used for marketing the Institute of Actuaries of India as well as the profession in parts of Asia where the profession is not well established and where the insurance industry is at a nascent stage.

Another area where the Advisory group has been working is in improving the relationship of the Profession with the IRDAI. Thanks to our initiatives, the IRDAI has consulted the Profession in a structured manner before finalising the recent regulations.



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Notice for Subscription fees for the financial year 2016-17

A) Due date: 1st April 2016.

B) The subscription rates: with effect from 1st April 2016:

Class of Membership	Fees in Indian Rupees (INRs)
Fellows and Affiliates	7,500
Associates	2,500
Students	1,500
For Fellows, Affiliates and Associates above age 60 as on 1 st April, 2016, and not gainfully employed in profession or practice or medically unfit to be gainfully employed in profession or practice.	1,500
Life membership (optional) who are more than 60 years as on 1 st April, 2016	Ten times the normal annual subscription as mentioned above.
Members more than 75 years of age as at 1 st April, 2016	NO annual subscription
Change of Category within a subscription year	Will attract full subscription fees for new category

Note: These rates are applicable to all members regardless of their country of residence.

C) Failure to make payment: The payment should be made online on or before 30th June 2016 failing which membership will lapse resulting in to removal of name from the register of the Institute.

D) Mode of payment : 1) Online Payment through Members Login (www.actuariesindia.org/login.aspx)
2) DD or Pay Order
3) Wire-transfer (for members residing outside India)

Note: For more detail, kindly refer to subscription renewal form available on IAI website.

E) Reinstatement of Membership: Reinstatement can be requested in accordance with the following terms and conditions.

i) **Members whose subscription is outstanding only for year 2016-17:**

- If the request for reinstatement is received within three months (i.e. on or before 30th September) of his/her ceasing to be a member (after 30th June), the payment of the annual subscription plus a penalty of 25% thereon,
- If the request for reinstatement is received after three months (i.e. after 30th September) of his ceasing to be a member, he/she has to pay existing annual subscription, in addition to penalty of 50% of the annual subscription.

ii) **Members whose subscription is outstanding for more than one year:**

Where subscription is in arrears for more than one year, reinstatement will be made on payment of 1.5 times of current year applicable subscription fees for the number of years where subscription is in arrears in addition to the current year subscription fee.

Note: For Students And Associates

Members whose membership is outstanding for more than ten years can do reinstatement of membership offline only.

For Fellows And Affiliates

Members whose membership is outstanding for more than one year can do reinstatement of membership offline only.

F) Help: Kindly contact Ms. Prajakta Bhosle at actsoc@actuariesindia.org or at 022-67843333 for further details on reinstatement of membership or any other matter relating to annual subscription.



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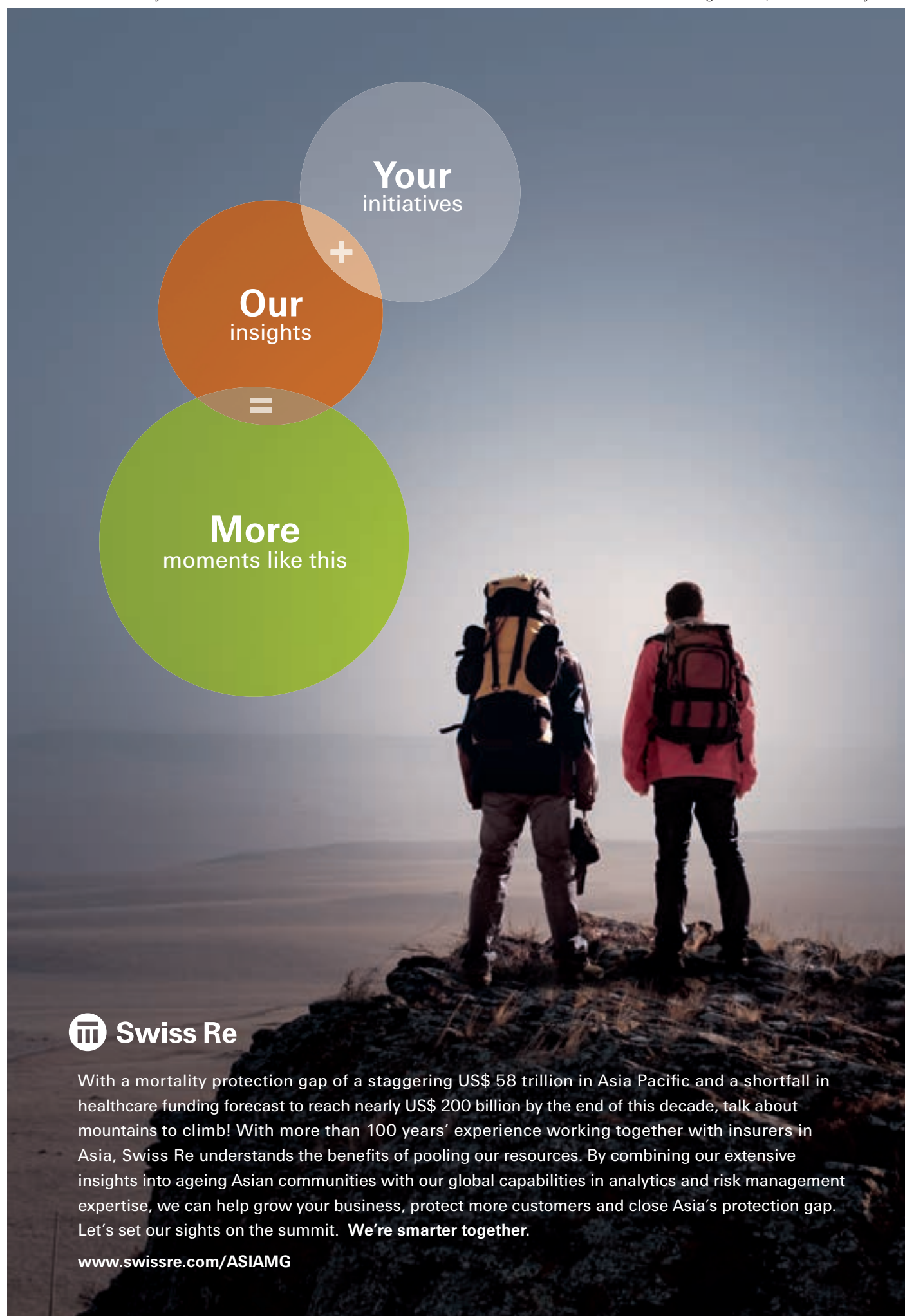
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